

Project Number: HN000351-A



ABORIGINAL CULTURAL HERITAGE ASSESSMENT REPORT RADFORD PARK, BRANXTON

FINAL 21 / 04 / 2022

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Executive Summary

Heritage Now was engaged by Belford Developments Pty Ltd (the proponent) to prepare an Aboriginal Cultural Heritage Assessment report for the rezoning and subdivision of a portion of land in Branxton, within the Hunter Valley.

The Project Area was surveyed on 21 January, 2022 and 27 January, 2022 by Les Draper from Mindaribba LALC, Lara Tooby (Heritage Consultant) from Heritage Now, and Tessa Boer-Mah (Principal Heritage Consultant and Archaeologist) (the latter only on the second day).

There is one surface artefact site (HN RP A01) in the Project Area, and one potential archaeological deposit (HN RP PAD01). The Aboriginal archaeological site HN RP A01 is being addressed within *Aboriginal Cultural Heritage Assessment Report— Sewer Infrastructure, Radford Park, Branxton* (Heritage Now 2022). HN RP A01 (AHIMS# 37-6-4187) is likely to contain low-moderate quantities of artefacts, as is located between larger streams and the Hunter River suggests it was likely used infrequently.

The Project Area can be rezoned and subdivided on the basis of this report as the nature of the sites and their significance does warrant further investigation at this stage.

However, the below recommendations are to be followed for subsequent DA(s):

Recommendation 1

The Project RAPs are to be kept up to date about project developments so that this report can be updated for the purpose of the DA(s).

Recommendation 2

If the future development application footprint does *not* overlap with the potential archaeological deposit HN RP PAD01, then this ACHA report should be updated for the purposes of the DA.

Recommendation 3

If the future development application footprint *does* overlap with the potential archaeological deposit HN RP PAD01, then subsurface archaeological investigations under the *Code of Practice for the Investigation of Aboriginal Objects in NSW* is to be undertaken before proposed works commence in the Project Area. The test pitting program would sample areas of potential archaeological deposit HN RP PAD01 where development impact is being proposed. If Aboriginal objects are recovered during investigations, or known archaeological sites will be impacted by the proposed works, then an AHIP will need to be submitted and supported by an ACHA report and Aboriginal consultation.

Acronyms and Definitions

Acronym/Term	Definition
Aboriginal object	Aboriginal object means any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains (as per <i>NPW Act 1974</i>).
Aboriginal place	Any place declared to be an Aboriginal place under Section 84 of the <i>NPW Act</i> .
ACHA	Aboriginal Cultural Heritage Assessment
AHD	Australian Height Datum
AHIMS	Aboriginal Heritage Information Management System (register for Aboriginal sites in NSW)
AHIP	Aboriginal Heritage Impact Permit (as per <i>NPW Act 1974</i>)
AR	Archaeological Report
Australia ICOMOS	Australia International Council on Monuments and Sites
A Horizon	The top layer of mineral soil in a soil profile. It is usually broken into A ₁ and A ₂ soils, with the former tending to have a relatively high dark organic content, while the latter is paler.
B Horizon	The B horizon underlies the A horizon of a soil profile, and is generally a high-clay content soil.
BP	Before Present
DA	Development Application
DCDB	Digital Cadastral Database (NSW)
DECCW	Department of Environment, Climate Change and Water, NSW (became the Office of Environment and Heritage in 2011).
DP	Deposited Plan
DTDB	Digital Topographic Database (NSW)
EP&A Act	Environmental Planning and Assessment Act (1979)
FGS	Fine Grained Silicious
HLRV	Historical Lands Records Viewer
Holocene	Geological epoch (period) typically defined as the time period that commenced approximately 11,700 years ago and is the current period of

Acronym/Term	Definition
	geological time. This period is generally warmer and wetter than the preceding Pleistocene period.
IMT	Indurated Mudstone / Tuff
LALC	Local Aboriginal Land Council (Land Council under the Aboriginal Land Rights Act 1983)
LEP	Local Environmental Plan
LGA	Local Government Area
OEH	Office of Environment and Heritage, NSW (Now Heritage NSW)
m	Metric metres
Non-perennial	In terms of rivers, it means a river that is usually partially or fully dry for part of the year.
NPW Act	National Parks and Wildlife Act 1974
PAD	Potential Archaeological Deposit
Perennial	In terms of rivers, it means a river that has year-round water.
Pleistocene	Geological epoch (period) is typically defined as the time period that commenced approximately 2.6 million years ago and lasted until approximately 11,700 years ago. This period spans the world's recent period of repeated glaciations. The late Pleistocene, in which humans began occupying Australia, is generally colder and dryer than the Holocene.
RAPs	Registered Aboriginal Parties
SIX Maps	Spatial Information Exchange (NSW government portal holding a range of spatial and property data)
SU	Survey Units
UNESCO	United Nations Educational, Scientific and Cultural Organization

Version Control

Version	Date	Reviewer	Description
Draft 1	7/03/2022	Tessa Boer-Mah, Principal Heritage Consultant	Draft for client review
Draft 2	18/03/2022	Andrew Willias (Belford Land) and Amanda Wetzel (Guide Consulting)	Review before distribution to RAPS
Final	21/04/2022	Project RAPs	Final report after RAP review

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1 Introduction

Heritage Now Pty Ltd (Heritage Now) was engaged by Belford Developments Pty Ltd (the Proponent) to prepare an Aboriginal Cultural Heritage Assessment (ACHA) report for the rezoning of a portion of land in Branxton, within the Hunter Valley.

The aim of the ACHA is to identify Aboriginal cultural heritage values through consultation with This report is a combination of an Aboriginal Cultural Heritage Assessment (ACHA) report and an Archaeological Report (AR)¹ as per Heritage NSW guidelines. The key objective of this assessment is to identify cultural heritage values through consultation with Registered Aboriginal Parties (RAPs) and archaeological investigation.

1.1 Background

This present report is for the wider subdivision area of Radford Park. Another ACHA report was prepared by Heritage Now for a subset of the Project Area, *Sewer Infrastructure, Radford Park, Branxton* (2020). This ACHA report addressed an unexpected archaeological find within an area for a Sewer Waste Water Pump Station, water and sewer mains and associated access track, located in the centre of the current subdivision area. That ACHA report was written for the purpose of an AHIP application for Community Collection and Management of the newly recorded Aboriginal site in consultation with Registered Aboriginal Parties. In contrast, the present ACHA report is for the wider subdivision area, and mapping out any sites, Potential Archaeological Deposits, or areas of archaeological sensitivity. Whether an AHIP will be required will be determined following the finalisation of development plans for the subdivision area, when known impacts to the area are understood. This report has been prepared for the purposes of the subdivision.

1.2 Project Area

The Project Area (subdivision area) is situated on the western side of Elderslie Road, north of Branxton, and incorporates Lot 1, DP 1124566, and Lot 122, DP1165-84 and Lot 111, DP 850244 (Figure 1). The size of the Project Area is approximately 820,000m² (82 ha). It is situated about 2.4 km southeast of where Black Creek joins the Hunter River. The Project Area is located approximately 19 km southeast of Singleton and is within the boundaries of the Singleton Local Government Area (LGA) and the Mindaribba Local Aboriginal Land Council (LALC) (Figure 2).

¹ Although it is recommended in the *Code of Practice* that an Archaeological Report should be a stand-alone technical report, due to the test excavation not occurring, a combined report assessed as appropriate for this project and AHIP. The technical aspect of the report, documenting the archaeological survey, is found in Section 5.

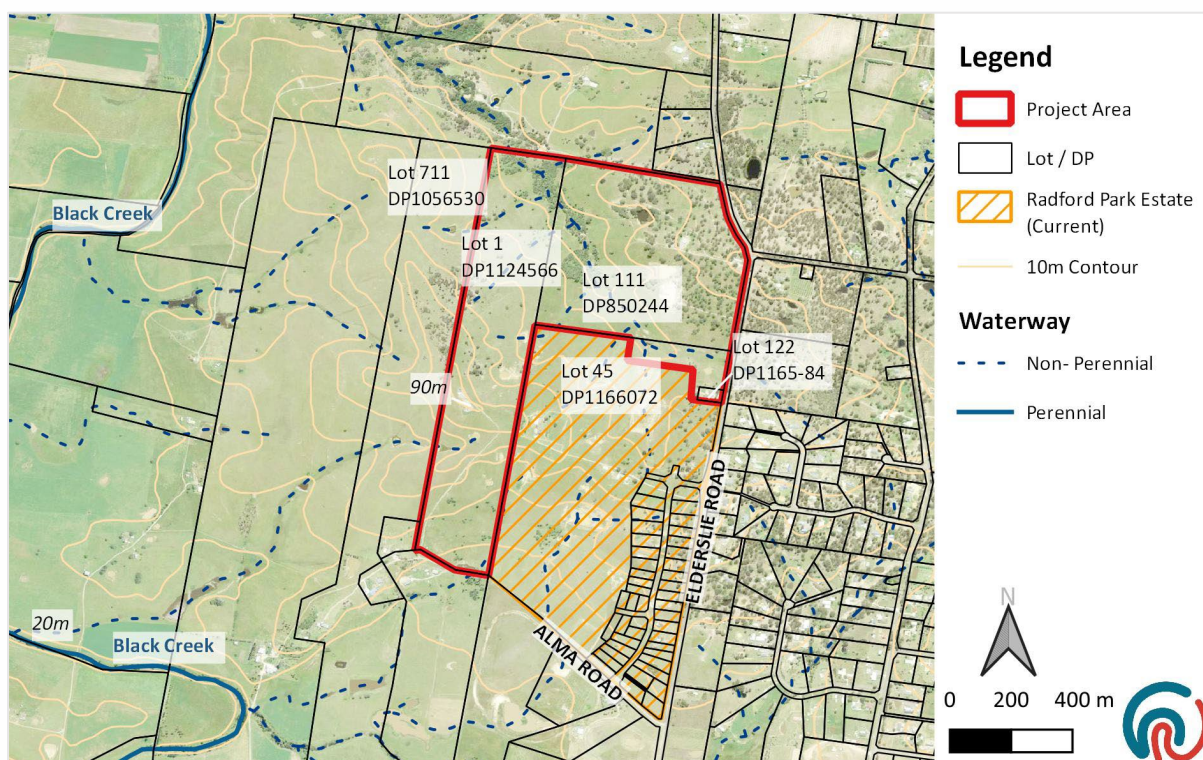


Figure 1. The Project Area. It is in Zone 56, and Parish of Branxton. (Source: SIX Maps aerial DCDC, cadastral boundaries, DTDB topographic details, and Heritage Now additions)



Figure 2. The Project Area within a regional context. (Source: SIX Maps base plan with Heritage Now additions)

1.3 Overview of Project Proposal

The Project Proposal is for the rezoning of land to R5 – Large Lot Rezoning.

Current timeframes are still being developed, but a rezoning application is currently being prepared and the subdivision DA would proceed shortly thereafter. The subdivision DA will determine the areas of subsurface impact (and potential impacts to Aboriginal cultural values will be addressed once the subdivision DA plans are available). This report only addresses the rezoning component of the project.

1.4 Project Methodology

This ACHA report was prepared in accordance with, but not limited to, the *National Parks and Wildlife Act 1974*, the National Parks and Wildlife Regulations 2009, the *Environmental Planning and Assessment Act 1979*, Singleton Local Environmental Plan (LEP) and, the State Environmental Planning Policies. The following guidelines and codes of practice have been used in preparing this ACHA report:

- Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011)
- Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010a).
- Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW 2010b)

1.5 Authorship and Copyright

This report was produced by the Heritage Now. Lara Tooby (Heritage Consultant) wrote the report with input from Sarah Mané (Heritage Consultant) and Joven Sanchez (Heritage Officer). Technical input and quality review was provided by Tessa Boer-Mah Principal Heritage Consultant at Heritage Now.

Heritage Now Pty. Ltd. retains the copyright of this report.

2 Legislative Context

This section provides an outline of the Acts, Regulations and guidelines under which this assessment was 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 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 AHIP. 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 2010c)
- NSW Minerals Industry Due Diligence Code of Practice for the Protection of Aboriginal Objects (NSW Minerals Council 2010)
- *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010c),
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW* (OEH 2011), and
- *Code of Practice for Archaeological Investigation of Aboriginal objects in NSW* (DECCW 2010b).

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 (EP&A) Act provides triggers for undertaking environmental and heritage assessments as part of the wider land use planning framework. This Act has three main parts of direct relevance to Aboriginal cultural heritage. Namely, Part 3 which governs the preparation of planning instruments, Part 4 which relates to development assessment provisions for local government (consent) authorities and Part 5 which relates to activity approvals by governing (determining) authorities. Planning decisions within Local Government Areas (LGAs) are guided by Local Environmental Plans (LEPs). Each LGA is required to develop and maintain an LEP that includes Aboriginal and historical heritage items which are protected under the EP&A Act and the NPW Act.

The Project Area is located within the Singleton LGA and falls under the Singleton LEP 2013.

2.5 Singleton Local Environmental Plan 2013

The Singleton LEP 2013 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 in the Project Area listed on the LEP.

3 Aboriginal Consultation

This section documents the Aboriginal Consultation that was undertaken for the project in accordance with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (OEH, formerly DECCW 2010b) and will be referred to as the 'Aboriginal Consultation Requirements'. The four stages of Aboriginal consultation were conducted and additional documentation is available in Appendix 1.

3.1 Stage 1

In accordance with Stage 1 of the Aboriginal Consultation Requirements, requests for information on knowledge holders were sent to Heritage NSW Office, the Mindaribba LALC, the Registrar of Aboriginal Owners, Native Title Services, National Native Title Tribunal, Singleton Council and the Hunter office of Local Land Services. The National Native Title Tribunal only accepts searches of crown land for Aboriginal knowledge holders. There is no crown land in the Project Area.

Based on information collected from government agencies, expressions of interest were sent to the knowledge holders inviting them to become a Registered Aboriginal Party for the project.

A public notice was placed in the Singleton Argus local newspaper on 11 November 2021.

As a result of the expressions of interest invitations and the public notice, 13 Aboriginal representatives nominated to become Registered Aboriginal Parties for the Project (Table 1).

Table 1. Registered Aboriginal Parties.

Organisation/Individual	Representative Name/s
A1 Indigenous Services	Carolyn Hickey
Aboriginal Native Title Consultants	Christine Paul
Didge Ngunawal Clan	Paul Boyd & Lilly Carroll
Kawul Pty Ltd trading as Wonn1 Sites	Arthur Fletcher
Mindaribba Local Aboriginal Land Council	Tara Dever
Murra Bidgee Mullangari Aboriginal Corporation	Ryan Johnson & Darleen Johnson-Carroll
Tocomwall Pty Ltd	Danny Franks
Widescope Indigenous Group	Steven Hickey
Wonnarua Nation Aboriginal	Laurie Perry

Organisation/Individual	Representative Name/s
Corporation	
Yinarr Cultural Services	Kathleen Steward Kinchela
Confidential	Confidential RAP 1
Confidential	Confidential RAP 2
Confidential	Confidential RAP 3

3.2 Stages 2 and 3

In accordance with Stages 2 and 3 details of the project and the assessment methodology was sent out to the RAPs and opportunities for feedback were provided (Table 2). Opportunities for feedback were also provided during the fieldwork.

Table 2. Responses to assessment methodology and project information from RAPs, and responses (when relevant) by Heritage Now.

Organisation/Individual and representative name	Comment	Heritage Now response
Wonnarua Nation Aboriginal Corporation Laurie Perry	Email 04/12/2021 'Email received'	Noted
Didge Ngunawal Clan Paul Boyd & Lilly Carroll	Email 09/12/2021 Agrees with methodology	Noted
Murra Bidgee Mullangari Aboriginal Corporation Ryan Johnson	Email 20/12/2021 Endorses the recommendations made	Noted

3.3 Stage 4

The draft report was sent to Registered Aboriginal Parties and 28 days provided for comment (Table 3).

Table 3. A summary of comments received for the draft Aboriginal Cultural Heritage Report, and the responses of Heritage Now.

Organisation/Individual and representative name	Comment	Heritage Now response
Confidential RAP 1	Email 29/03/2022 'Agrees with the review'	Noted

3.4 Summary

As a result of the Aboriginal consultation process, 13 Registered Aboriginal Parties were identified. Feedback from the Aboriginal consultation has been incorporated into the assessment of significance and the development of heritage management and mitigation strategies for the Project.

4 Environmental and Heritage Context

The archaeological assessment outlines the environmental and heritage context for the Project Area.

4.1 Environmental Context

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

The likelihood of Aboriginal objects surviving in the landscape is considered based on two key factors: the likely nature of occupation by Aboriginal people, as environmental factors provide distinctive sets of constraints that influences land use patterns (landscape features) (Kuskie 2015, 8); and the degree that environmental conditions are suitable for the preservation of archaeological remains (preservation).

This section considers the environment as it was during the Holocene, as Pleistocene sites are not expected to have preserved in the Project Area.

4.1.1 Geology and Soils

The underlying geology can provide information on stone resources available to Aboriginal people. Soil characteristics provide information on potential archaeological deposits.

In terms of geology, the Project Area is primarily underlain by the Branxton Formation – Maitland Group, consisting of conglomerate sandstone and siltstone (Hawley, Glen, and Baker 1995). Common stone artefact materials known to be utilised by Aboriginal people of the Hunter Valley in the past include silcrete, indurated mudstone/ tuff (IMT), fine grained silicious (FGS), chert, quartzite and quartz. Of these, IMT, quartz and quartzite are the most likely to occur naturally in the Project Area. Furthermore, quality sandstone in this region could provide natural sandstone exposures suitable for grinding axes and other stone artefacts.

The Project Area is classified under the Rothbury soil landscape, which usually occurs on rolling hills with elevations ranging from 60 – 140 mm and the Branxton soil landscape, which covers undulating low hills and rises and creek flats, from 50 – 80 m AHD.

The Rothbury soil landscape covers the majority of the Project Area. This soil landscape is characterised by a range of Red Podzolic Soils on upper slopes, Yellow Podzolic Soils on midslopes, and Yellow Solodic and Brown Soloths on lower slopes (Kovac and Lawrie 1991, 338). It would be expected that the lower elevations within this landscape would be Yellow Solodic Soils and Brown Soloths, which consist of brown sandy loam and/or dull yellowish brown loamy sand (15 – 25 cm) (A Horizon soils), with a clear change to dull yellow or brown medium clay (B Horizon Soils). Prairie Soils are found in drainage lines. These consist of dark brown silt loam to brownish black silty clay loam (to 20 cm), gradually changing to dark brown light clay or dull yellowish brown light medium clay, overlying conglomerate. On the basis of this soil landscape classification, it is predicted that approximately 25 cm of potentially artefact bearing deposit would be present provided the soils have not been disturbed and the soils occur on archaeologically sensitive landforms.

The Branxton soil landscape is characterised by Red Podzolic on crests and Yellow Podzolic on midslopes (Kovac and Lawrie 1991, 110). As the crest formation within the Project Area is within the

Branxton soil landscape it would likely contain Red Podzolic Soils, which consist of dark reddish brown fine sandy loam (A¹ horizon) gradually changing to brown sandy loam in the A² Horizon (to a depth of 25 cm). The B Horizon has a sharp change to reddish brown medium clay. Yellow Podzolic Soils on the midslopes consist of a brown sandy loam in the A Horizon (to a depth of 20 cm), changing sharply to a bright brown light medium clay with prominent yellow and grey mottles B Horizon. Alluvial soils occur on some creeks, consisting of up to 20 cm of brown loamy sand, overlying yellow loamy sand.

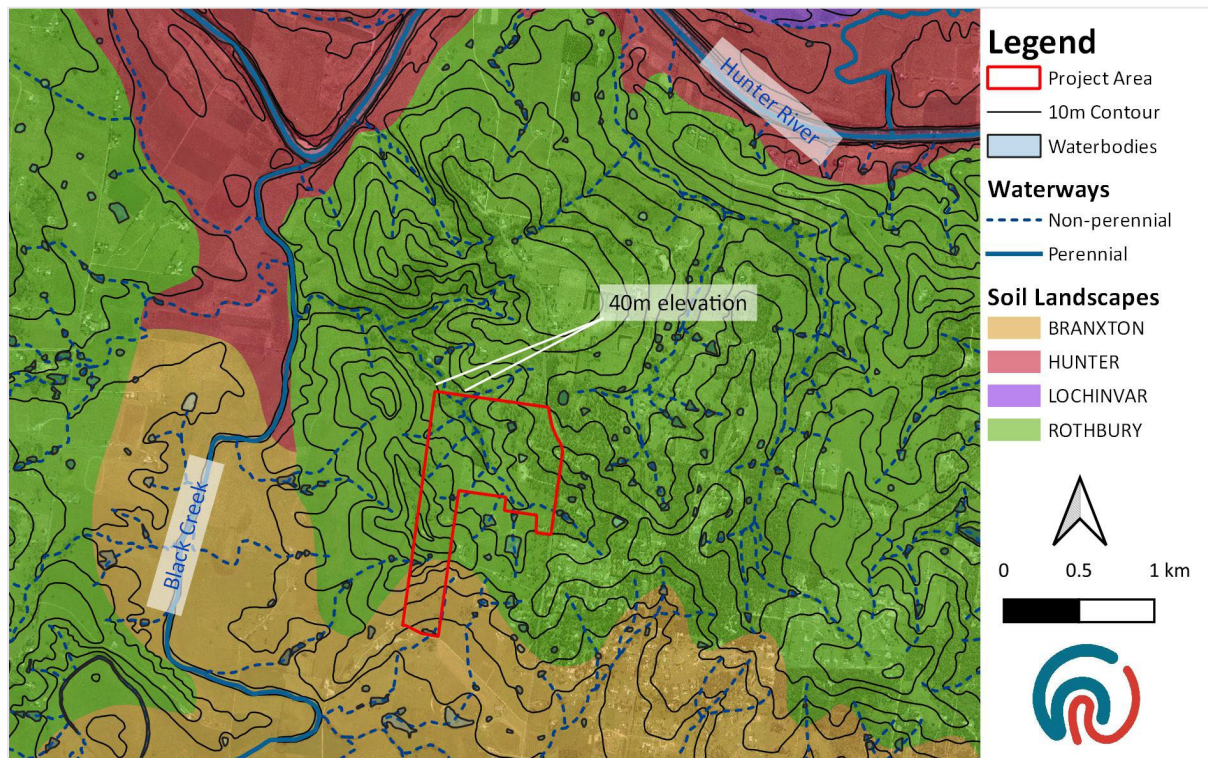


Figure 3. Soil landscape within the Project Area and surrounding region. (Source: Kovac and Laurie 1991 soil landscapes, DTDB topography and SIX Maps aerial with Heritage Now additions)

4.1.2 Topography, Hydrology and Landforms

The topography, hydrology and landforms provide information on the likelihood and nature of past Aboriginal occupation in the Project Area.

The Project Area is approximately two kilometres south of the Hunter River, on highly undulating terrain ranging from 40 metres to 50 metres in elevation (NSW Spatial Services 2017). It consists of lower slopes of four first order drainage lines which flow south-west to north-east into a second order creek, located approximately 40 metres east and runs along the central portion of the Project Area. These then subsequently drain into Black Creek, a fourth order stream located approximately 1.4 kilometres to the north-west of the Project Area.

Access to freshwater is known as a primary consideration for Aboriginal people when they went to set up camps. Studies from Hunter Valley (Kuskie and Kamminga 2000; Kuskie 2015) demonstrate areas within 300 m of wetlands and freshwater are considered to have been ideal locations for camping and focused occupation (i.e., repeated visits, visits of longer duration). In contrast, areas further than 300 m from wetlands and/or water sources were outside the primary or secondary resource zones, and likely have had low to very low intensity use for hunting and/or gathering during

the course of the normal daily round, or for transitory movement. However, special resource areas or activity areas may not conform to this model for instance stone quarries, or sacred sites.

Several non-perennial drainage lines/first order streams feed into a non-perennial second order stream running in a north by west direction towards Black Creek, a perennial creek and tributary of the Hunter River. Whereas the non-perennial streams may have contained freshwater suitable for drinking at many times during the year. During drought periods, the perennial stream of Black Creek, located 1-2km from the Project Area is more likely to have been the source of drinking water, however, in some instances, excavated wells along smaller drainage lines also provided sources of drinking water.

4.1.3 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 was supplied for assisting understanding of 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 (Keith 2004). These forests consist of dry open eucalypt forest up to 30 m tall, with a mixed sclerophyll and mesophyll shrub stratum and semi-continuous grassy groundcover. Common trees included *Eucalyptus maculata* (spotted gum), *E. punctata* (grey gum) and *E. paniculata* (grey ironbark) (Dunn 2020, 47). Common shrubs including *Acacia dealbata* (silver-stemmed wattle), and *Allocasuarina torulosa* (forest oak) are present as tall shrubs or small trees. Smaller shrubs include *Breynia oblongifolia* (coffee bush), *Daviesia ulicifolia* (gorse bitter pea), *Lissanthe strigose* (peach heath), *Notelaea venosa* (large mock-olive), *Persoonia linearis* (narrow-leaved geebung), and *Rapanea variabilis* (muttonwood).

This vegetation community likely provided a variety of foods and raw materials for Aboriginal occupation in the area. Many of the plants, such as the geebung and coffee bush had edible components, and are recorded as being eaten by Aboriginal people. Besides food, plants were also used for textiles, tools, and medicinal purposes. The timbers of eucalypts could be used to create tools, vessels, and canoes (Brayshaw 1987).

The forest and heaths provide the habitat for wallabies, kangaroos, potoroos, possums, birds and quolls. These faunas could have provided food resources, with some animal hides and land animals being used as a resource to make clothing. The plentiful flora and fauna that likely occurred within the Project Area and surrounds very likely made it a suitable area for resource gathering and exploitation.

4.1.4 Land Use

Land is disturbed if it has been the subject to modern human activity that has changed the land's surface. Examples include ploughing, construction of rural infrastructure, roads, trails and tracks, vegetation clearance, construction of buildings, structures, and utilities and other impacts involving earthworks (DECCW 2010, 18).

Alexander B Sparke (or Spark) was granted the land which encompasses the Project Area in 1823. He was assigned six convict servants to assist with the management of the land. (Free Settler or Felon n.d.). It is unclear what type of farming occurred on the property, but it is very likely the property was immediately cleared of trees, and then used for grazing sheep or cattle, or planting to maize,

wheat or orchards. The ongoing cultivation or grazing of land likely fundamentally disturbed the topsoils across the Project Area. Historical aerials from 1963 indicate that the banks of major creek line were still vegetated, possibly to prevent creek erosion, although targeted clearance did occur. The degree of vegetation clearance around the creek line, as well as the speed of regrowth, can be seen when comparing a historical aerial from 1963 (Figure 5) to one from 1984 (Figure 6).

Currently, the land is mainly cleared for grazing purposes, although retains vegetation along the drainage and creek lines and scattered throughout the Project Area.

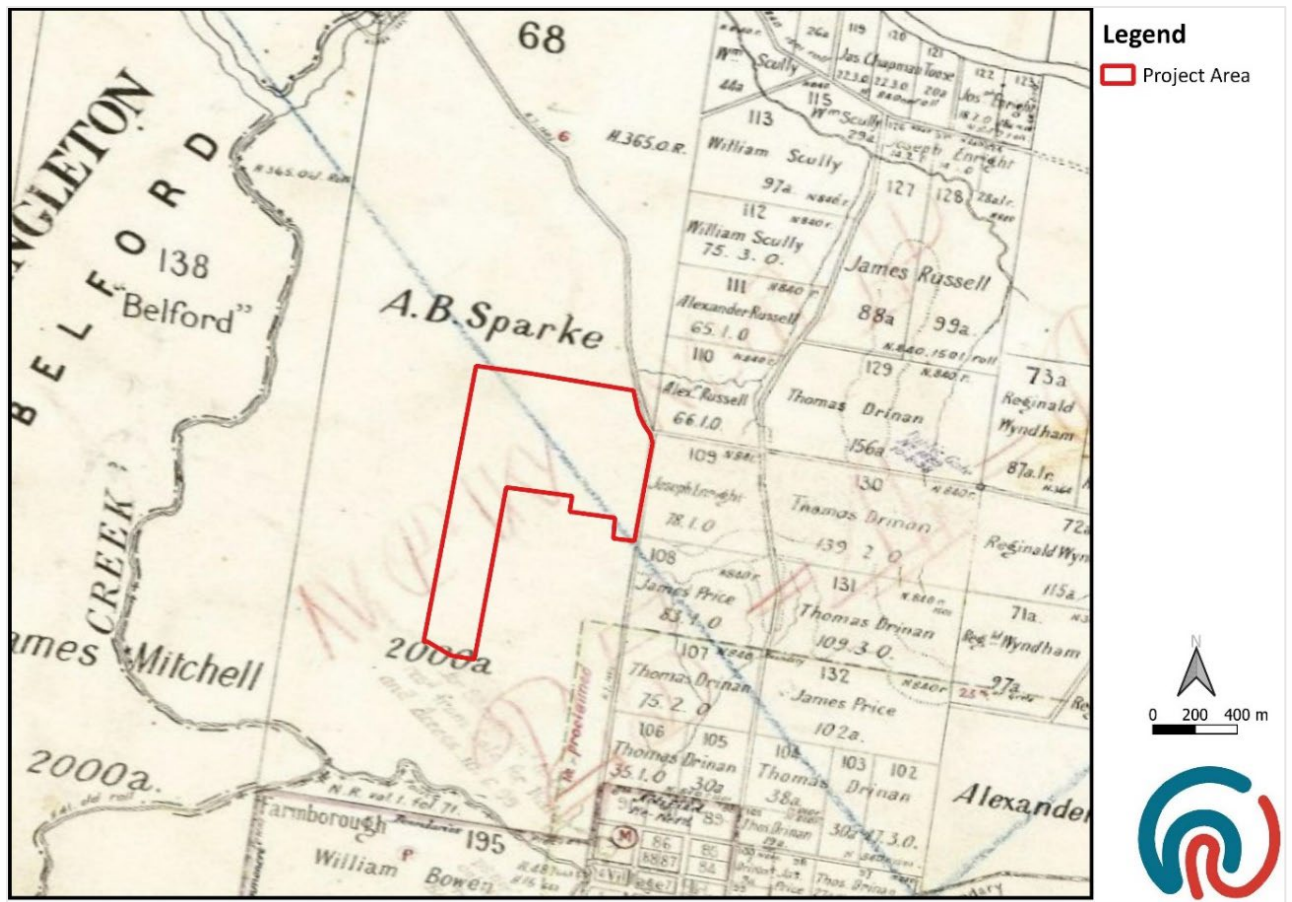


Figure 4. Project Area shown on 1893 parish map (Branxton) (HLV Historical Parish Maps 10841401.jp2)

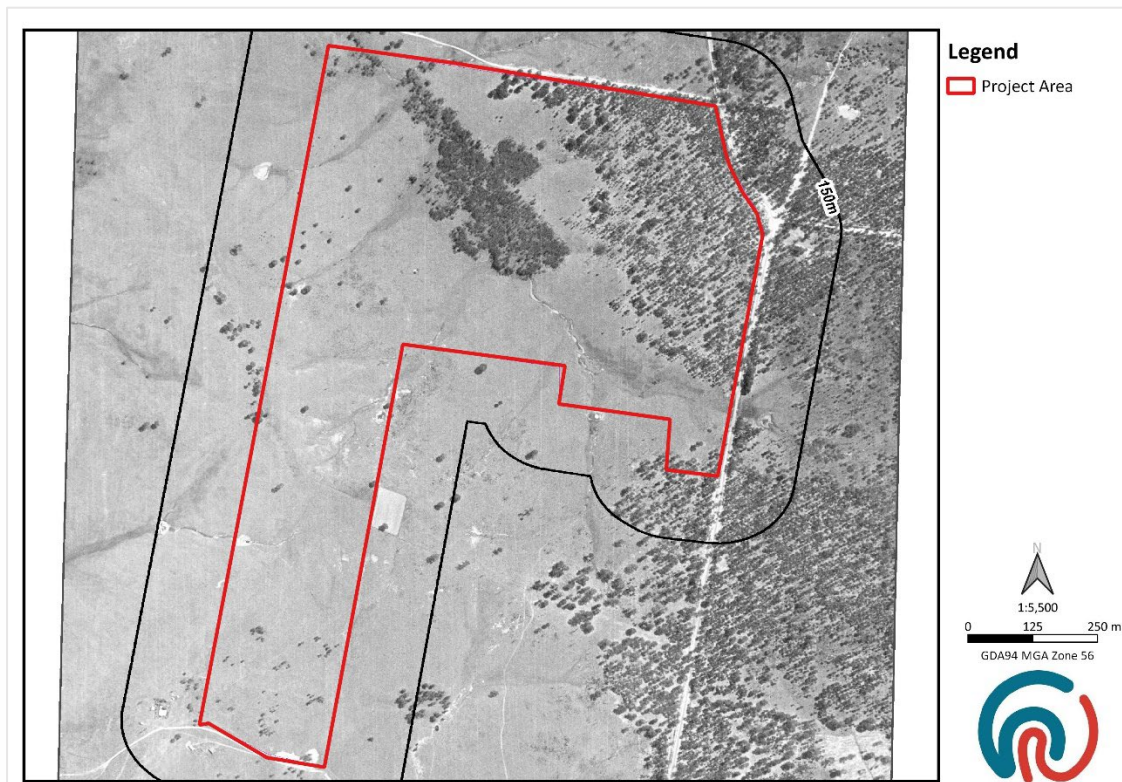


Figure 5. The Project Area in 1963. (Source: NSW Department of Customer Service, supplied through Lot Search, with Heritage Now additions)

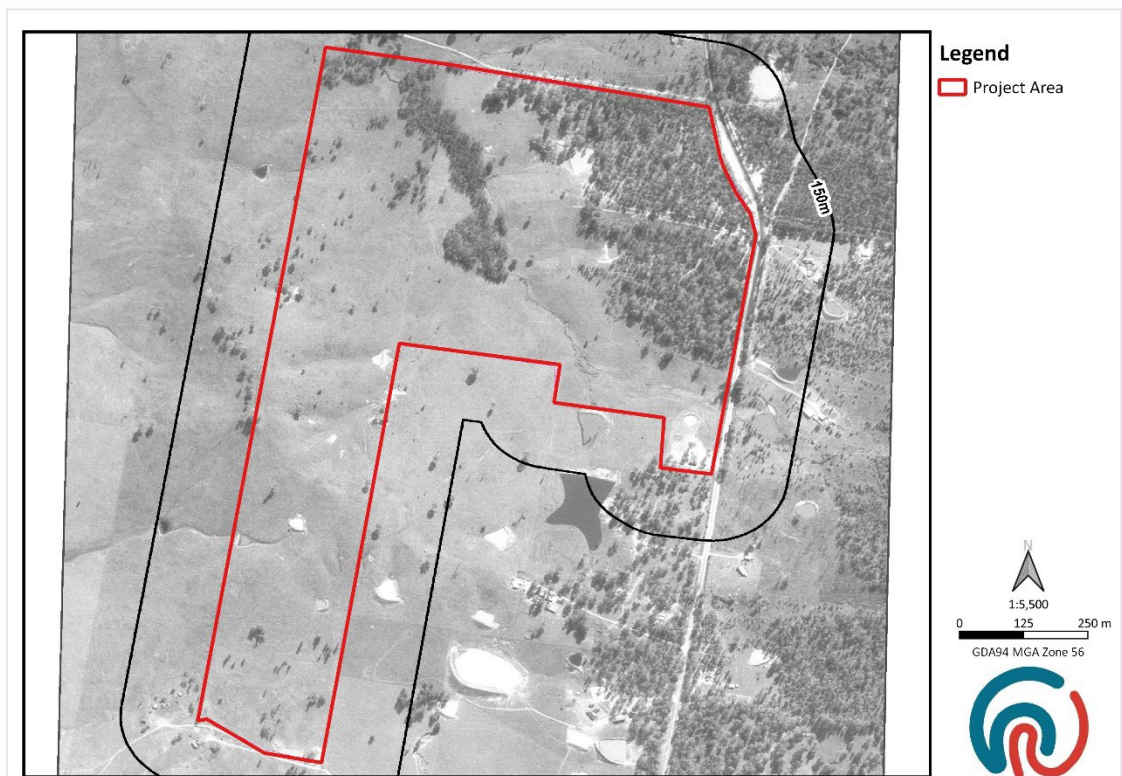


Figure 6. The Project Area in 1984. (Source: NSW Department of Customer Service, supplied through Lot Search, with Heritage Now additions)

4.1.5 Synthesis

The underlying geology contains some raw materials of interest to Aboriginal people but may have only been used by Aboriginal people if exposed on the surface. The flora and fauna in the locality are likely to have contained edible and other useful species for Aboriginal people. While there is a second order creek within 40 metres of the Project Area, the undulating terrain and toe-slopes in the Project Area are likely to have discouraged its use for campsites, with flatter elevated landforms being preferred. Furthermore, the Project Area has been vegetation clearance and farming for almost 200 years, and this likely disturbed artefact bearing topsoils.

4.2 Heritage Context

A review of the archaeological, ethno-historical and post-contact history of an area provides contextual information for Aboriginal sites within the local and regional landscape. Previous archaeological research undertaken in the region as well as a review of environmental factors can inform predictive models for the locations of Aboriginal sites. Predictive models can be further refined by the consideration of the post-contact land use of the area which may identify potential sources of post-depositional disturbances that may have occurred.

4.2.1 Historic Records of Aboriginal Occupation

Historic records indicate that the Project Area is within the boundaries of Wonnarua (alternative spellings Wanaruah, Wanarua, Wanarruwa, Wonaruah) Country (Tindale 1940). The traditional lands of the Wonnarua people have been documented as extending to the Upper Hunter River from a few miles above Maitland, westwards to the Dividing Range (Tindale 1974). Early historical records indicate that Wonnarua were part of a nexus of tribes in the Newcastle and Hunter River District (Gunson 1974, 3). These tribes were interconnected, with clear distinctions between coastal groups and those further inland (Gunson 1974, 4) (Irish 2017).

Boundaries between neighbouring groups were often defined by waterways or mountains. Economic, social and religious links between various groups was noted by some of the early European observers. Wollombi Brook, the McDonald River and the Boree Track were all noted by McCarthy in 1939 as travel routes for Aboriginal people from the upper Hunter to the Central Coast (Brayshaw 1987, 41), while Threlkeld noted in the 1830s that “Communications between distant tribes, although, perhaps hundreds of miles may intervene, are much more frequent than is commonly imagined by Europeans” (Gunson 1974, 42).

According to the Wonnarua Dreaming, the Hunter Valley region; the mountains, plains and all living things were created by the great spirit Baiame (Miller 1985). Two notable ceremonial sites in the Hunter Valley are Mount Yengo and the Baiame Cave. Mount Yengo is a natural feature of spiritual and ceremonial importance to the Wonnarua, Awabakal, Worimi and Darkinjung Aboriginal communities and is known to have been visited by all of these groups for trade relations and ceremonial activities. The site was gazetted as an Aboriginal Place in 2008 and is also a part of the Yengo National Park, which is one of eight conservation reserves that make up the Blue Mountains UNESCO World Heritage Area. The site represents the place where Baiame, the ancestral creator, jumped back to the spirit world. Baiame Cave in Milbrodale, near Singleton, is a rare and unique pigment art site depicting the creator Baiame. It is a place of special cultural, social and spiritual significance, and demonstrates the importance of ancestral beings, creation stories and Dreaming sites.

Wonnarua people subsisted on the natural resources around them by using their detailed and in-depth knowledge of the seasonal availability of plants and animals. Their varied diet included a large range of fish, shellfish, animals, reptiles, birds, insects and plants. Some European observers, like Dawson, when recording the traditional life of Aboriginal people in the Hunter Valley in 1831, recognised that, “The forest in its natural state, affords them everything necessary for their subsistence” (Brayshaw 1987, 42). In 1898, J.W. Fawcett wrote of the Wonnarua that, “In choosing the site (for their camps), proximity to fresh water was one essential, some food supply a second, whilst a vantage ground in case of attack from an enemy was a third (Brayshaw 1987, 42).

Aboriginal people responded to the reaction of the invasion Singleton (then Patrick Plains) and Maitland (then Wallis Plains) in complex and varied ways (Dunn 2020, 116). There were violent confrontations particularly 1820s; clashes usually triggered by Aboriginal people being prevented from accessing land now claimed by colonial settlers resulting in raids by Aboriginal people on the farms, which in turn led to reprisal attacks from the settlers. The farm-raids were spurned by the fact that traditional food sources were steadily put under strain and colonial population increased in the Hunter Valley. Violence was also caused by the abduction of Aboriginal women, as well as indiscriminate killings. Aboriginal people had to make profound cultural changes to survive, Aboriginal people served as guides, and often worked on the early colonial farms (although rarely on fair and equal terms to the non-Aboriginal workers) (Dunn 2020, 116–17).

Despite these general histories of Aboriginal occupation in the Hunter Valley, no *specific* records of events involving Aboriginal people within the Project Area were identified for this ACHA report.

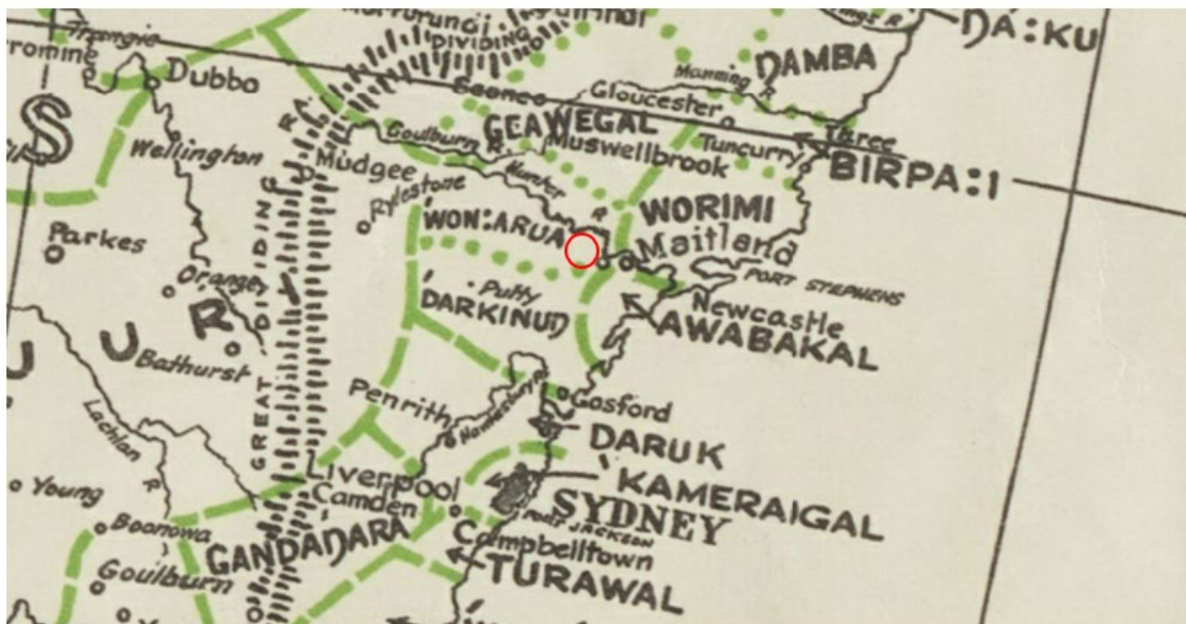


Figure 7. Tindale 1940 map of Boundaries of Aboriginal people, with current Project Area circled in red. (Source: Tindale 1940 with Heritage Now additions)

4.2.2 Regional Archaeological Background

Australia and New Guinea were connected as a single continental landmass called Sahul and have been occupied by humans for at least 65,000 years (Clarkson et al. 2017). Eastern NSW has been occupied from at least 50,000 years ago (Williams et al. 2017). Radiocarbon dates obtained from charcoal at a site in Glennies Creek, north of Singleton, determined that artefacts within the deposit

dated to the Pleistocene, approximately 20,200 years before present (BP), however, most of the archaeology in the Hunter region is younger and has been dated to the Holocene (in the last 10,000 years).

There are many types of evidence past Aboriginal occupation which form the archaeological record of a region.

Places that show evidence of Aboriginal occupation of an area in the past are described as archaeological sites. These sites contain numerous site features, as defined in Table 4. Some archaeological sites contain more than one of these features.

Table 4. Aboriginal site features description, as per OEH 2012.

Site Features	OEH 2012 Description
Aboriginal Ceremony and Dreaming	Previously referred to as mythological sites these are spiritual/story places where no physical evidence of previous use of the place may occur, e.g., natural unmodified landscape features, ceremonial or spiritual areas, men's/women's sites, dreaming (creation) tracks, marriage places etc.
Aboriginal Resource and Gathering	Related to everyday activities such as food gathering, hunting, or collection and manufacture of materials and goods for use or trade.
Art	Art is found in shelters, overhangs and across rock formations. Techniques include painting, drawing, scratching, carving engraving, pitting, conjoining, abrading and the use of a range of binding agents and the use of natural pigments obtained from clays, charcoal and plants.
Artefact	Objects such as stone tools, and associated flaked material, spears, manuports, grindstones, discarded stone flakes, modified glass or shell demonstrating evidence of use of the area by Aboriginal people.
Burial	A traditional or contemporary (post-contact) burial of an Aboriginal person, which may occur outside designated cemeteries and may not be marked, e.g., in caves, marked by stone cairns, in sand areas, along creek banks etc.
Ceremonial Ring	Raised earth ring(s) associated with ceremony.
Conflict	Previously referred to as massacre sites where confrontations occurred between (1) Aboriginal and non-Aboriginal people, or (2) between different Aboriginal groups.
Earth Mound	A mounded deposit of round to oval shape containing baked clay lumps, ash, charcoal and, usually, black or dark grey sediment. The deposit may be compacted or loose and ashy. Mounds may contain various economic remains such as mussel shell and bone as well as stone artefacts. Occasionally they contain burials.
Fish Trap	A modified area on watercourses where fish were trapped for short-term storage and gathering.
Grinding Groove	A groove in a rock surface resulting from manufacture of stone tools such as ground edge hatchets and spears, may also include rounded depressions resulting from grinding of seeds and grains.
Habitation Structure	Structures constructed by Aboriginal people for short- or long-term shelter. More temporary structures are commonly preserved away from the NSW coastline, may include historic camps of contemporary significance. Smaller structures may make use of natural materials such as branches, logs and bark sheets or manufactured materials such as corrugated iron to form shelters. Archaeological remains of a former structure such as chimney/fireplace,

	raised earth building platform, excavated pits, rubble mounds etc.
Hearth	Cultural deposit sometimes marked by hearth stones, usually also contains charcoal and may also contain heat treated stone fragments.
Modified Tree	Trees which show the marks of modification as a result of cutting of bark from the trunk for use in the production of shields, canoes, boomerangs, burials shrouds, for medicinal purposes, foot holds etc, or alternately intentional carving of the heartwood of the tree to form a permanent marker to indicate ceremonial use/significance of a nearby area, again these carvings may also act as territorial or burial markers.
Non-Human Bone and Organic Material	Objects which can be found within cultural deposits as components of an Aboriginal site such as fish or mammal bones, ochres, cached objects which may otherwise have broken down such as resin, twine, dilly bags, nets etc.
Ochre Quarry	A source of ochre used for ceremonial occasions, burials, trade and artwork.
Potential Archaeological Deposit (PAD)	An area where sub-surface stone artefacts and/or other cultural materials are likely to occur' (DECCW 2010, 38). PADs have a high potential for subsurface Aboriginal objects which occur in stratified archaeological deposits (that is, undisturbed soils). Site specific models are developed to differentiate PADs from any other non-archaeological soil deposit or lower-potential archaeological deposits (Burke, Morrison, and Smith 2017, 98). Surface Aboriginal artefacts may be present in association with a PAD, but PADS can also occur without surface artefacts being present.
Shell	An accumulation or deposit of shellfish from beach, estuarine, lacustrine or riverine species resulting from Aboriginal gathering and consumption. Usually found in deposits previously referred to as shell middens. Must be found in association with other objects like stone tools, fish bones, charcoal, fireplaces/hearths, and burials. Will vary greatly in size and components.
Stone Arrangement	Human produced arrangements of stone usually associated with ceremonial activities, or used as markers for territorial limits or to mark/protect burials.
Stone Quarry	Usually, a source of good quality stone which is quarried and used for the production of stone tools.
Waterhole	A source of fresh water for Aboriginal groups which may have traditional ceremonial or dreaming significance and/or may also be used to the present day as a rich resource gathering area (e.g., waterbirds, eels, clays, reeds etc).

4.2.3 Aboriginal Heritage Information Management System (AHIMS)

The AHIMS was searched on the 28 October, 2021 from Lat, Long -32.66491, 151.317874 to Lat, Long -32.605475, 151.398751 (Figure 8). The search produced a result of 54 sites (Appendix 2). There were no previously registered sites in the Project Area², however, there have been artefacts sites recorded nearby.

The most common sites identified were those that had artefacts (including isolated finds, PAD (Potential Archaeological Deposit) with artefacts, and artefact scatters), comprising 89% of the total sites (Table 5). Stone artefacts often dominate the archaeological record because they preserve well compared to other materials such as bone implements, clothing, ornamentation, medicinal supplies,

² At the time of the search, two sites (37-6-3219 and 37-6-3657) incorrectly registered in the Project Area. The site recorder was contacted and the records have been changed in AHIMS.

woven goods, and wooden weapons used by Aboriginal people. Other sites included PADs and Axe Grinding Grooves.

Table 5. AHIMS Site types

Site Types	Count	Per cent
Isolated find	29	53.70%
Artefact Scatter	9	16.67%
Artefact/s	8	14.81%
PAD	4	7.41%
Axe Grinding Groove	2	3.70%
Artefact Scatter + PAD + Aboriginal Resource and Gathering	1	1.85%
Artefact/s + PAD	1	1.85%
Total	54	100%

The majority of the sites identified in the search are valid, usually meaning they have not been subject to an AHIP. The AHIMS search indicated that seven sites have been completely salvaged, one site has been partially salvaged, and one which was later identified not to be a site.

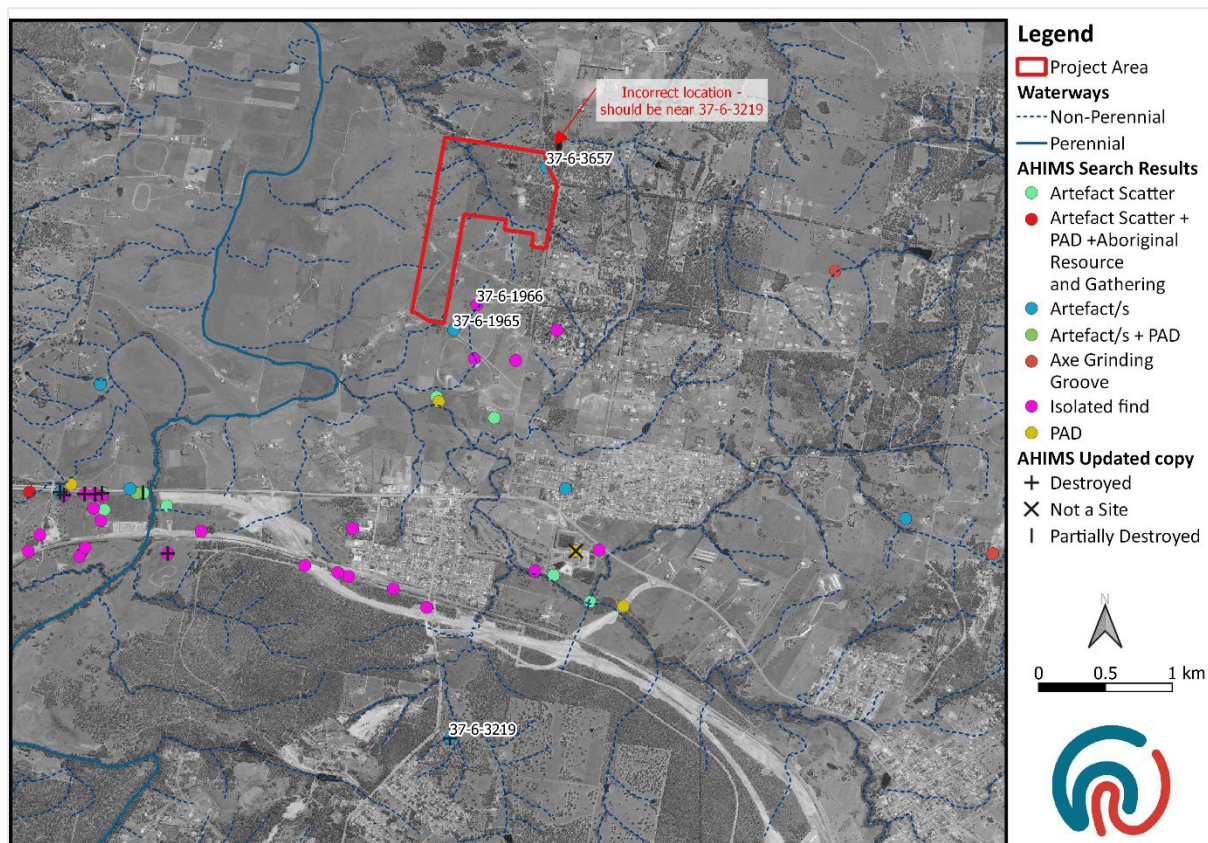


Figure 8. AHIMS Search Results. (Source: SIX Maps aerial with DTDB topography (hydrolines), AHIMS search results and Heritage Now additions)

4.2.4 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.

McCardle Cultural Heritage, April 2009, Indigenous Archaeological Assessment

McCardle Cultural Heritage (2009) undertook an archaeological assessment for the purposes of rezoning of directly south of the current Project Area, the location of the current Radford Park Estate (Figure 9). An archaeological survey was undertaken, and three sites were identified, all consisting of isolated artefacts. These sites were assessed as having highly disturbed contexts through past land uses, and no PADs were identified or considered likely. The isolated artefacts found in the study area were interpreted as being part of a landscape that was utilised by transitory movement and/or hunting and gathering rather than a campsite location ((McCardle Cultural Heritage 2009). As the archaeological significance of the sites was assessed as limited, no further archaeological investigation (including archaeological excavation) was recommended. A Section 90 permit (AHIP) was recommended to undertake Community Collection of the sites prior to any works occurring.

Insite Heritage, March 2010, Aboriginal Archaeological Assessment

Insite Heritage Management (Insite Heritage) conducted an Aboriginal archaeological assessment of Lots 2 and 3, DP 618713 Elderslie Road Branxton for a proposed rural residential subdivision, 700 m west from Project Area. Survey of the 20-acre project area revealed one site, comprising a broken silcrete flake located in an eroded exposure in a horse paddock. Due to the disturbed and eroded surface, the artefact was not considered to be in situ. The isolated artefact find was considered to have low scientific, public, and representative significance. In consultation with the registered Aboriginal stakeholders, it was recommended that a Section 90 permit (AHIP) be sought for collection of the isolated artefact, and that the permit also allow for community monitoring of excavation works (Insite Heritage and Wyatt 2010).

Kuskie 2012, Aboriginal Heritage Impact Assessment

South East Archaeology was engaged by Hunter 8 Alliance to review the revised Construction Impact Area for 32 km of the Maitland to Minimbah rail line and to assess the impact and mitigation on Aboriginal heritage. There was a significant downsizing of the impact area, and a considerable reduction in the number of identified sites impacted by the project. The study area is located 2.4 km south of the Project Area. There were 16 sites located along the Branxton section of the line, consisting of artefact scatters, isolated artefacts and a grinding groove. These were all assessed as having low to moderate significance (Kuskie 2012), management strategies included protective measures to ensure impacts were avoided, surface collection (for 11 of the sites) and unmitigated impact where avoiding impacts was not considered feasible

Myall Coast Archaeological Services 2012 Aboriginal and Archaeological Assessment Huntlee

Myall Coast Archaeological Services was commissioned by Huntlee Pty Ltd to survey a parcel of land, located 2.7 km south of the Project Area. This report deals particularly with Stage 1 of the proposed development of the new town of "Huntlee", adjacent to North Rothbury. While previous surveys had located artefacts, the survey for Stage 1 identified no sites would be impacted by the first stage of development. There were no areas of archaeological or cultural value within the Stage 1 boundaries (Myall Coast Archaeological Services 2012, 47).

Heritage Now 2021 Aboriginal Due Diligence Branxton

Heritage Now was engaged by Belford Land to undertake a Due Diligence Assessment for proposed water and sewer infrastructure, located within the current Project Area. Survey of the study area did not identify any Aboriginal artefacts or areas of archaeological sensitivity (Heritage Now 2021). General mitigation strategies were recommended to avoid inadvertent harm to Aboriginal objects.

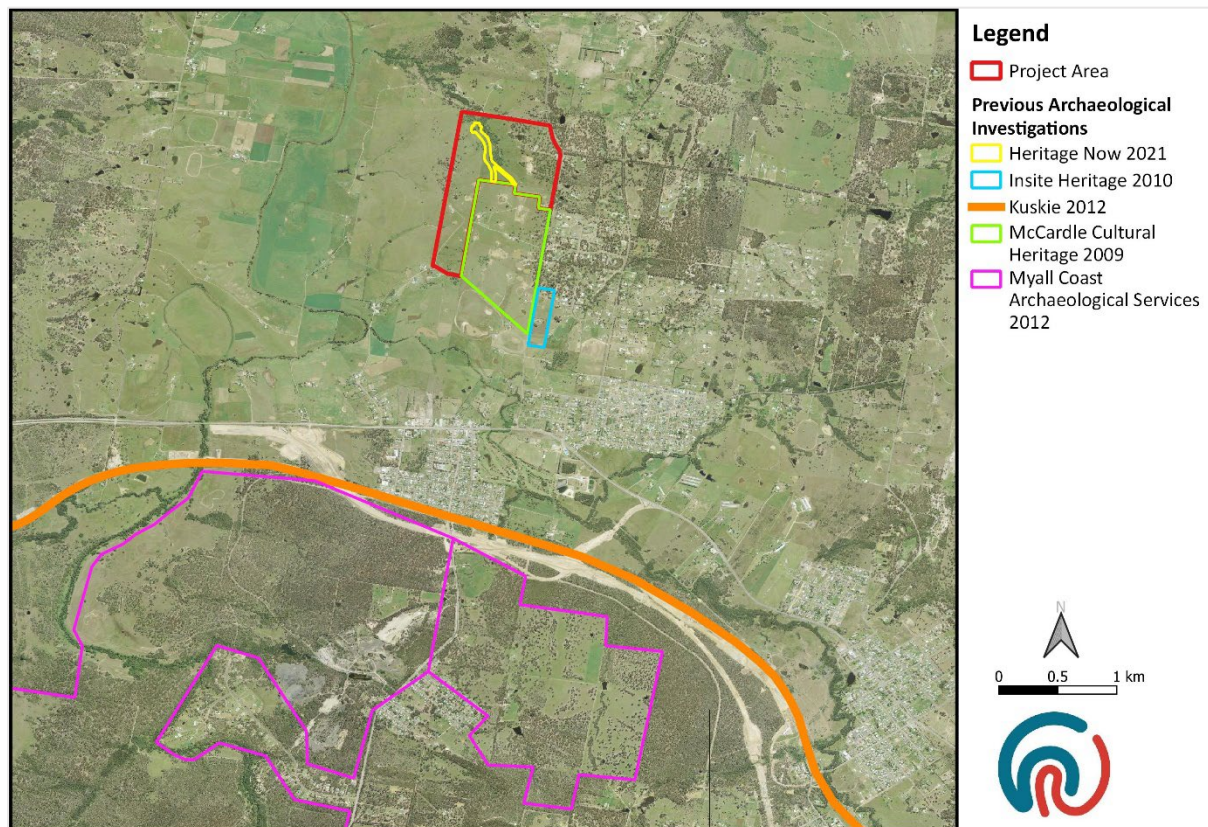


Figure 9. Nearby archaeological investigations discussed in Section 4. (Source: SIX Maps aerial with Heritage Now addition)

4.2.5 Artefact Density Predictive Modelling

Predictive models are based on upon the assumption that environmental factors provide distinctive sets of constraints that influence land use patterns (Kuskie 2015, p. 8). In the Hunter Valley, for instance, J.W. Fawcett in 1898 said of the Wonnarua, that when choosing the sites for their camps, access to fresh water was one essential and a food resource of secondary importance, whilst a vantage point in case of attack by an enemy was third (Brayshaw 1987, 42).

Artefact density is linked to different types of activities falling on a scale from long-term occupation to short-term transitory movement. Attenbrow (2006) built on earlier archaeological models to develop a model of occupation within the Australian context, identifying base camps, activity camps and transit camps. Base camps are similar to residential bases in that they were occupied for a longer period of time (several days or longer). Activity camps, conversely, are characterised by short periods of use, and are usually functionally specific. Activities that may take place at activity camps in Australia include hunting, artefact preparation, gathering of raw materials, and ceremonial activities (Attenbrow 2006, 220–21). ‘Transit camp’ refers to places that were used to camp for short periods, usually overnight, often when travelling between base camps or resource areas. Archaeologically, base camps are characterised by a larger archaeological context (in square metres),

higher concentrations of stone artefacts, and a more diverse assemblage than transit and activity locations. Stone artefacts in these assemblages may show signs of tool manufacture and maintenance, skin working and food preparation (Attenbrow 2006, 221).

A clear trend has been identified in the Hunter Region in which higher artefact densities occur closer to wetlands, indicating that wetlands were a major focus of activity in the area (Kuskie 1994). Specifically, areas within 300 m of wetlands and other stable freshwater sources are considered to have been camping and focused occupation (i.e., repeated visits, visits of longer duration), whereas areas further than 300 m from wetlands and/or water sources were outside the primary or secondary resource zones, and likely had low to very low intensity use for hunting/gathering during the course of the normal daily round, or for transitory movement (Kuskie 2015). However, special resource areas or activity areas may not conform to this model, for instance stone quarries, or sacred sites.

4.3 Summary: Local and Regional Character of Aboriginal Land Use and its Material Traces

Early colonial records indicate that the Project Area was within Lower Hunter Valley Wonnarua Country. The earliest known evidence Aboriginal occupation of the Hunter Valley Area has been dated to approximately 20,000 years (Brayshaw 1987, 100). Stone artefacts often dominate the archaeological record because they preserve well compared to other materials such as bone implements, clothing, ornamentation, medicinal supplies, woven goods, and wooden weapons used by Aboriginal people.

There is ethnohistorical and archaeological information that suggests the duration/intensity that Aboriginal people occupied a certain area in the landscape was likely based on access to freshwater (including wetlands) and resource zones. Artefact density and characteristics can often help understand the type of occupation, and the various activities that were taking place, in an area. A key issue for the preservation of Aboriginal archaeology in the Hunter Valley is disturbance from land-use; over 200 years of convict, and then free-settler, colonial invasion in the Hunter region has disturbed or destroyed countless Aboriginal sites in the region.

4.4 Archaeological Predictions for the Project Area

The landscape had features that may have supported Aboriginal people in the past. The Project Area contains ridgelines a crest/ridgeline and streamlines, which may have been accessed by Aboriginal people in the past as walking routes and freshwater sources. Furthermore, the plentiful fauna that likely occurred within the Project Area and surrounds likely made it suitable location for resource gathering and exploitation. Due to the proximity to freshwater, a high density of stone artefacts made primarily from silcrete and IMT in all intact landforms across the Project Area, in portions of the Project Area has not been disturbed.

The Project Area is known to have been disturbed due to almost 200 years farming (grazing and/or cultivation) in the area. As many regional studies have shown this activity may have removed or compromised any remaining archaeological deposits within the Project Area. Aerials suggest some areas where there may have been less disturbance along the second order stream running in a northwest direction towards Black Creek, possibly to prevent erosion of the creekbank.

Table 6 describes the assessed likelihood of Aboriginal archaeological being present in the Project Area, on a scale of very low – very high likelihood.

Table 6. Likelihood of different sites features being preserved within the Project Area.

Site Features	Likelihood	Comment / Justification
Aboriginal Ceremony and Dreaming	Low	Many archaeological assessments have been done in the region and none have identified the Project Area as being part of a specific Aboriginal Ceremony and Dreaming context.
Aboriginal Resource and Gathering	Low	Although the area was very likely used as a resource and gathering location in the past, the landscape today has been disturbed and does not evoke or preserve the values related to these activities.
Art	Low	Aerial analysis and geological information do not indicate there will be rock shelters or formations onsite, which is where art sites are situated.
Artefact	Medium	This is the most common site type in the region. However, the potential for this artefact to occur in the Project Area is medium rather than high or very high due to the high degree of land-use disturbance which has occurred in the area.
Burial	Very Low	Land-use disturbance indicates that burials are very unlikely to be preserved in the Project Area.
Ceremonial Ring	Very Low	Land-use disturbance indicates that ceremonial rings are very unlikely to be preserved in the Project Area.
Conflict	Low	Many archaeological assessments have been done in the region and none have identified the Project Area as being associated with conflict.
Earth Mound	Very Low	Land-use disturbance indicates that earth mounds are very unlikely to be preserved in the Project Area.
Fish Trap	Low	No fish-traps have been recorded in tributaries around the Branxton area.
Grinding Groove	Low	Although grinding grooves are present in the regional area, they are not present in large numbers, and the aerial analysis and geological information indicate that suitable outcrops are unlikely to be present in the Project Area.
Habitation Structure	Very Low	Land-use disturbance indicates that habitation structures very unlikely to be preserved in the Project Area.
Hearth	Low	Land-use disturbance indicates that hearths are unlikely to be preserved in the Project Area.
Modified Tree	Low	Historic vegetation clearance indicates that old growth trees which have cultural markings and scars are unlikely to remain in the Project Area.
Non-Human Bone and Organic Material	Very Low	Land-use disturbance and environmental conditions indicate that Non-Human Bone and Organic Material is very unlikely to remain in the Project Area.
Ochre Quarry	Low	No ochre quarries have been recorded in the Branxton area.
Potential	Low –	There could potentially be some intact deposits onsite

Archaeological Deposit (PAD)	Medium	where there has been limited land-use disturbance, such as around vegetated creek lines.
Shell	Low	No archaeological shell has been recorded in the Branxton area.
Stone Arrangement	Very Low	Land-use disturbance indicates that stone arrangements are very unlikely to be preserved in the Project Area.
Stone Quarry	Low	No stone quarries have been recorded in the Branxton area.

5 Archaeological Survey

The Project Area was surveyed on 21 January, 2022 and 27 January, 2022 by Les Draper from Mindaribba LALC, Lara Tooby (Heritage Consultant) from Heritage Now, and Tessa Boer-Mah (Principal Heritage Consultant and Archaeologist) (the latter only on the second day).

5.1.1 Survey Units

Following Speight's (2009) landform classification, the Project Area was surveyed in six survey units (SU) defined by broad landform categories: Crest (SU1), Lower Slope (SU2 and SU3), and Mid / Upper Slope (SU4, SU5, SU6) (Figure 10).

The area was traversed by foot, generally with a 50-100m spacing between the survey personnel. Areas of high visibility and exposure were subject to detailed inspection. A summary of visibility and exposure is detailed in Table 7.

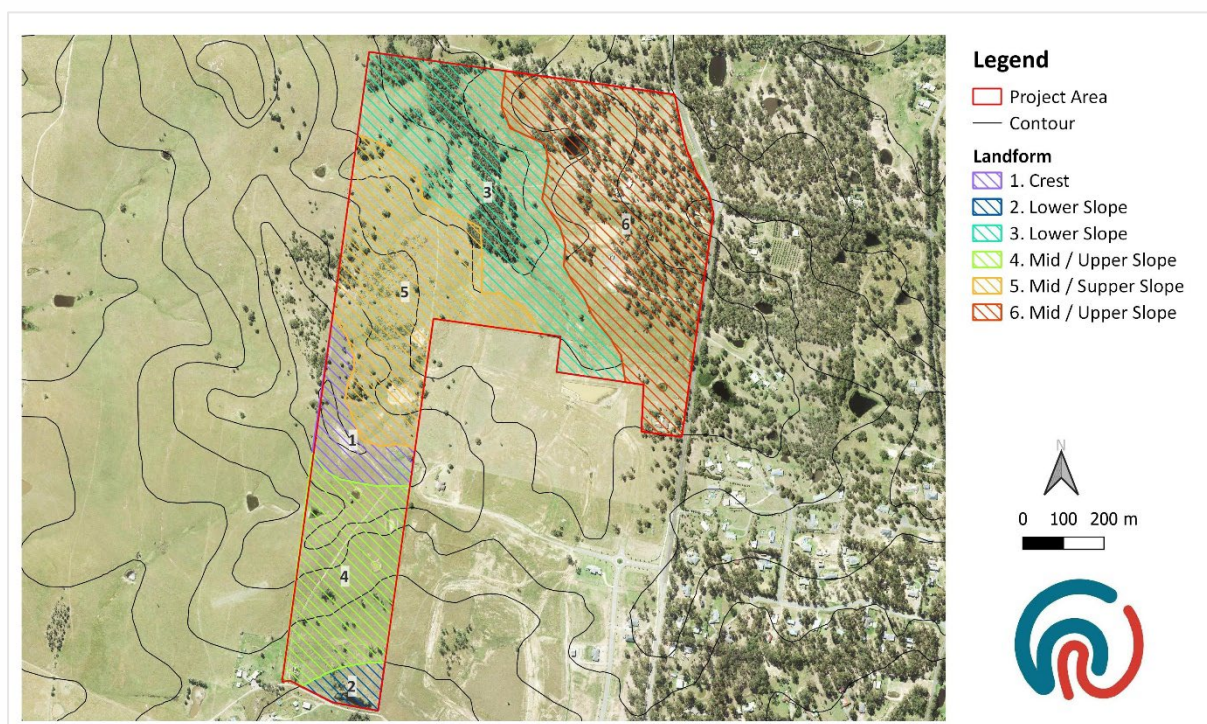


Figure 10. Survey units. (SIX Maps aerial with DTDB topography and Heritage Now additions)

Table 7. Survey coverage.

Survey Unit	Landform	Survey Unit Area	Visibility (%)	Exposure (%)	Effective Coverage	Sample Fraction	Sites Identified
1	Crest	42907	20	15	1287.21	3	
2	Lower Slope	15586	15	10	233.79	1.5	
3	Lower Slope	201837	15	10	3027.555	1.5	1
4	Mid / Upper Slope	118559	15	10	592.795	0.5	
5	Mid / Upper Slope	185480	15	10	2782.2	1.5	
6	Mid / Upper Slope	258995	10	5	3884.925	1.5	

SU1 - Crest

SU1 consisted of a grass covered crest (Plate 1) with small exposures of eroded conglomerate (Plate 2). The survey unit showed disturbance from vehicles and past farming activities, with many areas lacking topsoils as seen be exposed conglomerate clay and bedrock B horizon soils. Areas with topsoils were those vegetation coverage preventing erosion: in these areas, probe testing with a steel wire indicated there was approximately 15-20cm of topsoils, though these are expected to be highly disturbed based on evidence of rubbish (broken brick fragments) across the area. No Aboriginal sites or PADs were identified.

SU2 - Lower Slope

SU2 consisted of a lower slope on the southern edge of the property. The area was mostly vegetated with grass paddocks, with some casuarina trees in low-lying areas along a large dam (Plate 3). The landscape appeared heavily modified, and no Aboriginal archaeological sites or PADs were identified

SU3 - Lower Slope

SU1 consisted of a lower slopes and flats either side of a creek, with relatively intact shrub and tree vegetation. Either side of the creek was flat and covered in thick grass (Plate 4). A lot of the tree coverage on either side of the creek was young casuarinas (Plate 5), and no identifiable old-growth forest was visible, indicating that the vegetation was likely regrowth. On the northside of the creek was a flat which had over 20cm of topsoil (Plate 6). This area is considered archaeologically sensitive. The creek itself consisted of steep clay-based soil deposits of >3m, overlying conglomerate and shale (Plate 8).

Two stone artefacts were located in the Project Area in an area previously assessed during an Aboriginal Heritage Due Diligence Assessment. This site has registered on AHIMS as HN RP A01 (AHIMS# 37-6-4187) (Appendix 3), reported as containing a silcrete and IMT artefact. This site is considered an unexpected find from within the Aboriginal Heritage Due Diligence Area. Therefore,

this site is subject to a separate ACHA assessment, to acquire an AHIP to manage this find. At the moment, the site is cordoned off and no further impacts will occur until an AHIP has been granted.

Further information is available in the following report prepared by Heritage Now for Belford Land Developments in 2022: *Aboriginal Cultural Heritage Assessment Report— Sewer Infrastructure, Radford Park, Branxton.*

SU4 4 - Mid / Upper Slope

SU4 consisted of a sloping grass area with dams, animal enclosures, sheds, a gravel driveway, greenhouse, farm equipment and dams (Plate 9 and Plate 10). There was a small percentage exposed areas of subsoil visible in the Project Area, where topsoil had evidently been removed by caused by wind and water erosion cause from over-grazing/ vegetation clearance/nature erosion. Probe testing in remaining topsoils across this area were generally 15cm in depth. No Aboriginal sites or PADs were identified.

SU5 - Mid / Upper Slope

SU5 consisted of a slope area between the crest and the main creek line. It consisted of eucalyptus trees (on upper slope) and casuarinas on mid slopes. It had been disturbed by irrigation activities (including the creation of dams), grazing and vehicle movement (Plate 11). No Aboriginal sites were identified despite there being a number of exposures which were carefully inspected. Erosion levels and causes were similar to those in SU4. Probe tests indicated around 10-15cm of topsoils in vegetated areas.

SU6 - Mid / Upper Slope

SU6 consisted of gently sloping landform on the eastern edge of the Project Area. This SU had considerably more tree coverage than other units (Plate 12). It also included a number of residential dwellings and outbuildings. Despite the appearance of more intact soils (sometimes 50cm in depth) than other survey units, the heavy modification of the landscape, and lack of landform features conducive of habitation by Aboriginal people (e.g., natural watercourses, ridgelines or rock outcrops), no PADs or archaeological sites were identified. Furthermore, the trees across this area appeared to be regrowth, and no old-growth trees with cultural markings were visible.

5.1.2 Aboriginal Sites

One potential archaeological deposit, HN RP A01 (AHIMS# 37-6-4187), was identified in Survey Unit 3.

The Project Area contained one PAD along the creek line running southeast along the Project Area (Figure 11) for the following reasons:

- Aerial analysis indicating this were relatively undisturbed by farming in the 20th Century, in comparison with the rest of the Project Area
- The area is within short walking distance to a prominent streamline, perhaps encouraging camping
- The eastern edge of the streamline is particularly sensitive, as it is more flat than the western side and comprises flat elevated area.

HN RP A01 (AHIMS# 37-6-4187) is likely to contain low-moderate quantities of artefacts, as is located between larger streams and the Hunter River suggests it was likely used infrequently.

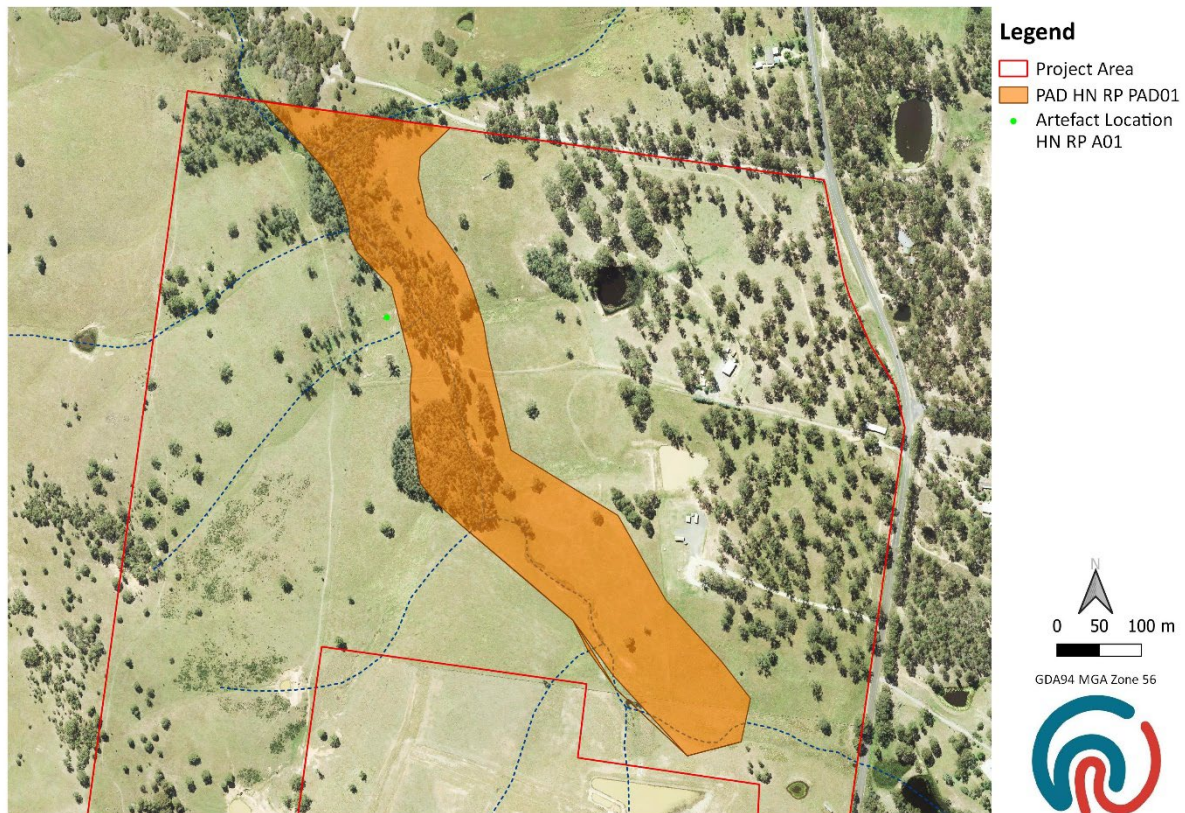


Figure 11. Location of artefact site HN RP A01, and HN RP PAD01. (Source: SIX Maps aerial with Heritage Now additions).

5.1.3 Interpretation of Results

One potential archaeological deposit (HN RP PAD01) was identified. It is likely to contain low-moderate quantities of artefacts as it is located between two perennial watercourses: Black Creek and Hunter River, which could have been preferred areas of habitation. This is also reflected in the single surface artefact site identified HN RP A01, despite there being high exposure in portions of the Project Area..

6 Significance Assessment and Aboriginal Cultural Values

Cultural heritage refers to the tangible and intangible values that we choose to pass on to future generations. In order to identify the values worth passing on, a significance assessment needs to be undertaken. The significance assessment needs to: identify the range of values present across the Project Area and assess their importance.

Note that the significance assessment for site HN RP A01 is detailed in the *Aboriginal Cultural Heritage Assessment Report— Sewer Infrastructure, Radford Park, Branxton* (Heritage Now 2022).

6.1 Methodology

Identifying the Aboriginal cultural values is part of the significance assessment process and is guided by the Burra Charter and the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*.

There are four recognised classes of values under the Burra Charter (Australia ICOMOS 2013):

- Social,
- Historical,
- Aesthetic, and
- Scientific

Within this significance assessment, Aboriginal cultural values are captured within social, historical and aesthetic values. The archaeological values are contained within scientific values.

Social value refers to the spiritual, traditional, historical or contemporary associations that Aboriginal people have for place. Historical value refers to the associations of a place with a historically important person, event, phase or activity in the Aboriginal community. Aesthetic value refers to the sensory, scenic, architectural and creative aspects of the place.

Archaeological values refer to the importance of the landscape, area, place or object because of its rarity, representativeness and the extent to which it may inform our understanding of Aboriginal culture.

6.1.1 Aboriginal Cultural Values

Aboriginal cultural values are identified through the Aboriginal consultation process. Formal opportunities for the Aboriginal community to contribute to identifying cultural values are provided in the ACHA methodology review period, during fieldwork and during the draft report review period. In addition, RAPs are invited to provide feedback at any time through the consultation process, by phone or in writing (email or letter).

6.1.2 Archaeological (Scientific) Values

Archaeological (scientific) values relate to whether the Project Area can contribute to our understanding of Aboriginal culture. Under the *Guide to Investigating, Assessing and Reporting on*

Aboriginal Cultural Heritage in NSW, archaeological values are to be considered within the below sub-categories:

- Representativeness,
- Rarity,
- Research potential, and
- Educational potential.

Significance is expressed as grades: low, moderate or high.

6.1.3 Aboriginal Cultural Values

Aboriginal cultural values are identified through the Aboriginal consultation process. Formal opportunities for the Aboriginal community to contribute to identifying cultural values are provided in the ACHA methodology review period, during fieldwork and during the draft report review period. In addition, RAPs are invited to provide feedback at any time through the consultation process, by phone or in writing (email or letter).

6.1.4 Archaeological (Scientific) Values

Archaeological (scientific) values relate to whether the Project Area can contribute to our understanding of Aboriginal culture. Under the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*, archaeological values are to be considered within the below sub-categories:

- Representativeness,
- Rarity,
- Research potential, and
- Educational potential.

Significance is expressed as grades: low, moderate or high.

6.2 Aboriginal Cultural Values

The landscape contains intrinsic values as being part of Wonnarua County, and any artefacts within HN RP PAD01 will contain value as providing a tangible link to Aboriginal ancestors and to the landscape. No specific comments on cultural values explicitly linked to the Project Area were received during the consultation process.

6.3 Archaeological Values

One PAD HN-RP-PAD01 was identified, but subsurface investigations are required before its significance can be assessed.

7 Impact Assessment and Mitigation

This section assesses the potential impact of the proposed works in relation to Aboriginal heritage values in the Project Area and provides options for mitigating loss of Aboriginal cultural values.

Note that the impact assessment for site HN RP A01 is detailed in the *Aboriginal Cultural Heritage Assessment Report— Sewer Infrastructure, Radford Park, Branxton* (Heritage Now 2022).

7.1 Proposed Works

The Project Proposal is for the rezoning of land to R5 – Large Lot Rezoning.

Current timeframes are still being developed, but a rezoning application is currently being prepared and the subdivision DA would proceed shortly thereafter. The subdivision DA will determine the areas of subsurface impact (and potential impacts to Aboriginal cultural values will be addressed once the subdivision DA plans are available). This report only addresses the rezoning component of the project.

7.2 Impact Assessment and Mitigation

The Project RAPs are to who are to be kept up to date about project developments every 3-6 months. This report is to be updated for the purposes of future Development Application(s) (DA).

Any subsurface works within HN RP PAD01 (Figure 11) has the potential to impact Aboriginal archaeology. This area is to be avoided; avoidance of these areas is not feasible, then further archaeological investigation under the *Code of Practice for the Investigation of Aboriginal Objects in NSW* is to be undertaken before proposed works commence in the Project Area. The test pitting program would sample areas of the areas of HN RP PAD01 where development impact is being proposed.

If Aboriginal objects are recovered during investigations, or known archaeological sites will be impacted by the proposed works, then an AHIP will need to be submitted and supported by an ACHA report and Aboriginal consultation.

8 Conclusions and Recommendations

There is one surface artefact site (HN RP A01) in the Project Area, and one potential archaeological deposit (HN RP PAD01). The Aboriginal archaeological site HN RP A01 is being addressed within *Aboriginal Cultural Heritage Assessment Report— Sewer Infrastructure, Radford Park, Branxton* (Heritage Now 2022). HN RP A01 (AHIMS# 37-6-4187) is likely to contain low-moderate quantities of artefacts, as is located between larger streams and the Hunter River suggests it was likely used infrequently.

The Project Area can be rezoned and subdivided on the basis of this report as the nature of the sites and their significance does warrant further investigation at this stage.

However, the below recommendations are to be followed for subsequent DA(s):

Recommendation 1

The Project RAPs are to be kept up to date about project developments every 3-6 months so that this report can be updated for the purpose of the DA(s).

Recommendation 2

If the future development application footprint does *not* overlap with the potential archaeological deposit HN RP PAD01, then this ACHA report should be updated for the purposes of the DA.

Recommendation 3

If the future development application footprint *does* overlap with the potential archaeological deposit HN RP PAD01, then subsurface archaeological investigations under the *Code of Practice for the Investigation of Aboriginal Objects in NSW* is to be undertaken before proposed works commence in the Project Area. The test pitting program would sample areas of potential archaeological deposit HN RP PAD01 where development impact is being proposed. If Aboriginal objects are recovered during investigations, or known archaeological sites will be impacted by the proposed works, then an AHIP will need to be submitted and supported by an ACHA report and Aboriginal consultation.

9 References

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10 Plates



Plate 1. View northwest across crest making up SU1. Les (in orange) in background. (Heritage Now 2022)



Plate 2. Example of a conglomerate exposire in SU1. View north. (Heritage Now 2022)



Plate 3. View west across SU2. (Source: Heritage Now 2022)



Plate 4. View southeast of thick grass coverage on the west side of creek, within SU3. Tessa and Les shown near edge of forested creekline. (Source: Heritage Now 2022)



Plate 5. View southeast of young casuarina vegetation bordering the creek lines. (Source: Heritage Now 2022).



Plate 6. View southwest of slightly elevated area overlooking creek in north portion of Project Area. (Source: Heritage Now 2022)



Plate 7. View southwest of slightly elevated area overlooking creek in southern portion of Project Area. (Source: Heritage Now 2022)



Plate 8. View of creekbank in SU3, facing west. (Source: Heritage Now 2022)



Plate 9. View south along SU4, showing heavily grassed area and dam. (Source: Heritage Now 2022)



Plate 10. View east across the lower portion of SU4, showing greenhouse and farming equipment, landscape modification to create a road embankment, and example of exposure of subsoil. (Source: Heritage Now 2022)



Plate 11. View east across a portion of SU5, showing disturbed and eroded area around dam (detailed in inspection occurred with no Aboriginal artefacts being detected), with trees on rolling slopes visible in the background. (Source: Heritage Now 2022)



Plate 12. Southeast view of SU6, showing high Eucalyptus tree coverage and dams. (Source: Heritage Now 2022).

Appendix 1 Aboriginal Consultation

Contact	Organisation	Contacted by	Organisation	Method	Date	Comment/response
Agency Letter						
Sir or Madam	Native Title Services Corp	Joven Sanchez	Heritage Now	Email	04/11/2021	
Sir or Madam	Register of Aboriginal Owners	Joven Sanchez	Heritage Now	Email	04/11/2021	
Sir or Madam	National Native Title Tribunal	Joven Sanchez	Heritage Now	Email	04/11/2021	
Sir or Madam	Heritage NSW	Joven Sanchez	Heritage Now	Email	04/11/2021	
CEO	Mindaribba Local Aboriginal Land Council	Joven Sanchez	Heritage Now	Email	04/11/2021	
Sir or Madam	Cessnock City Council	Joven Sanchez	Heritage Now	Email	04/11/2021	
Sir or Madam	Singleton Council	Joven Sanchez	Heritage Now	Email	04/11/2021	
Sir or Madam	Hunter Local Land Services	Joven Sanchez	Heritage Now	Email	04/11/2021	
Agency Letter Response						
	Heritage Now		National Native Title Tribunal	Email	04/11/2021	Automated response - email received
	Heritage Now		Heritage NSW	Email	04/11/2021	Automated response - email received
	Heritage Now		Singleton Council	Email	04/11/2021	Automated response - email received
	Heritage Now		Cessnock City Council	Email	04/11/2021	Automated response - email received
Joven Sanchez	Heritage Now		Hunter Local Land Services	Email	05/11/2021	Doesn't have list of relevant Aboriginal Traditional Custodians in project area. Suggested contacting relevant LALC
	Heritage Now		National Native Title Tribunal	Email	05/11/2021	Fill out their attached form to complete search request
Joven Sanchez	Heritage Now	Jo Miller	Cessnock City Council	Email	15/11/2021	Sent Aboriginal and Torres Strait Islander stakeholder groups who may be interested
Lara Tooby	Heritage Now	Paul Houston	Heritage NSW	Email	16/11/2021	Sent RAPs list
Expressions of Interest Letters						
Carolyn Hickey	A1 Indigenous Services	Joven Sanchez	Heritage Now	Email	17/11/2021	Carolyn Hickey
Christine Paul	Aboriginal Native Title Consultants	Joven Sanchez	Heritage Now	Email	17/11/2021	Christine Paul
Ashley, Gregory, & Adam Sampson	AGA Services	Joven Sanchez	Heritage Now	Email	17/11/2021	Ashley, Gregory, & Adam Sampson

Contact	Organisation	Contacted by	Organisation	Method	Date	Comment/response
Alieria French	Alieria French Trading	Joven Sanchez	Heritage Now	Email	17/11/2021	Alieria French
Kerrie Brauer	Awabakal Traditional Owners Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	17/11/2021	Kerrie Brauer
Toni-Lee Scott	Bathurst Local Aboriginal Land Council	Joven Sanchez	Heritage Now	Email	17/11/2021	Toni-Lee Scott
Donna & George Sampson	Cacatua Culture Consultants	Joven Sanchez	Heritage Now	Email	17/11/2021	Donna & George Sampson
Marilyn Carroll-Johnson	Corroboree Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	17/11/2021	Marilyn Carroll-Johnson
Tracey Skene	Culturally Aware	Joven Sanchez	Heritage Now	Email	17/11/2021	Tracey Skene
Derrick Vale Snr	D F T V Enterprises	Joven Sanchez	Heritage Now	Email	17/11/2021	Derrick Vale Snr
Deslee Matthews	Deslee Talbott Consultants	Joven Sanchez	Heritage Now	Email	17/11/2021	Deslee Matthews
Paul Boyd & Lilly Carroll	Didge Ngunawal Clan	Joven Sanchez	Heritage Now	Email	17/11/2021	Paul Boyd & Lilly Carroll
Craig Horne & Debbie Dacey-Sullivan	Gidawaa Walang & Barkuma Neighbourhood Centre Inc.	Joven Sanchez	Heritage Now	Email	17/11/2021	Craig Horne & Debbie Dacey-Sullivan
Paulette Ryan	Hunter Traditional Owner	Joven Sanchez	Heritage Now	Email	17/11/2021	Paulette Ryan
Luke Hickey	Hunter Valley Cultural Surveying	Joven Sanchez	Heritage Now	Email	17/11/2021	Luke Hickey
Tania Matthews	Hunters & Collectors	Joven Sanchez	Heritage Now	Email	17/11/2021	Tania Matthews
Craig Archibald	Indigenous Learning	Joven Sanchez	Heritage Now	Email	17/11/2021	Craig Archibald
Les Atkinson	Jarban & Mugrebea	Joven Sanchez	Heritage Now	Email	17/11/2021	Les Atkinson
Norm Archibald	Jumbunna Traffic Management Group Pty Ltd	Joven Sanchez	Heritage Now	Email	17/11/2021	Norm Archibald
Dave Feeney	Karuah Local Aboriginal Land Council	Joven Sanchez	Heritage Now	Email	17/11/2021	Dave Feeney
Jill Green	Kauma Pondee Inc.	Joven Sanchez	Heritage Now	Email	17/11/2021	Jill Green

Contact	Organisation	Contacted by	Organisation	Method	Date	Comment/response
Arthur Fletcher	Kawul Pty Ltd trading as Wonn1 Sites	Joven Sanchez	Heritage Now	Email	17/11/2021	Arthur Fletcher
Sir/Ma'am	Kiray Putjung Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	17/11/2021	Sir/Ma'am
David Ahoy	Lower Hunter Aboriginal Incorporated	Joven Sanchez	Heritage Now	Email	17/11/2021	David Ahoy
Lea-Anne Ball	Lower Hunter Wonnarua Cultural Services	Joven Sanchez	Heritage Now	Email	17/11/2021	Lea-Anne Ball
Tracey White	Mayaroo	Joven Sanchez	Heritage Now	Email	17/11/2021	Tracey White
Nathan Moran	Metropolitan Local Aboriginal Land Council	Joven Sanchez	Heritage Now	Email	17/11/2021	Nathan Moran
Michael Green	Michael Green Cultural Heritage Consultant	Joven Sanchez	Heritage Now	Email	17/11/2021	Michael Green
Tara Dever	Mindaribba Local Aboriginal Land Council	Joven Sanchez	Heritage Now	Email	17/11/2021	Tara Dever
Ryan Johnson & Darleen Johnson-Carroll	Murra Bidgee Mullangari Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	17/11/2021	Ryan Johnson & Darleen Johnson-Carroll
Warren Schillings	Myland Cultural & Heritage Group	Joven Sanchez	Heritage Now	Email	17/11/2021	Warren Schillings
Colin Ahoy	Nunawanna Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	17/11/2021	Colin Ahoy
Rod Hickey	The Men's Shack Indigenous Corporations	Joven Sanchez	Heritage Now	Email	17/11/2021	Rod Hickey
Scott Franks	Tocomwall Pty Ltd	Joven Sanchez	Heritage Now	Email	17/11/2021	Scott Franks
Alan Paget	Ungooroo Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	17/11/2021	Alan Paget
Maree Waugh	Wallagan Cultural Services	Joven Sanchez	Heritage Now	Email	17/11/2021	Maree Waugh
Des Hickey	Wattaka Wonnarua CC Service	Joven Sanchez	Heritage Now	Email	17/11/2021	Des Hickey
Steven Hickey	Widescope Indigenous Group	Joven Sanchez	Heritage Now	Email	17/11/2021	Steven Hickey

Contact	Organisation	Contacted by	Organisation	Method	Date	Comment/response
Laurie Perry	Wonnarua Nation Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	17/11/2021	Laurie Perry
Vicky Slater	Wurrumay	Joven Sanchez	Heritage Now	Email	17/11/2021	Vicky Slater
Kathleen Steward Kinchela	Yinarr Cultural Services	Joven Sanchez	Heritage Now	Email	17/11/2021	Kathleen Steward Kinchela
Steve Talbott	Individual	Joven Sanchez	Heritage Now	Email	17/11/2021	Steve Talbott
Robert Syron	Individual	Joven Sanchez	Heritage Now	Email	17/11/2021	Robert Syron
Expressions of Interest Responses						
		Tara Dever	Mindaribba Local Aboriginal Land Council			automatically registered
Joven Sanchez	Heritage Now	Paul Boyd & Lilly Carroll	Didge Ngunawal Clan	Email	17/11/2021	registers interest
Joven Sanchez	Heritage Now	Christine Paul	Aboriginal Native Title Consultants	Email	17/11/2021	registers interest
Joven Sanchez	Heritage Now	Confidential RAP 1	Confidential RAP 1	Email	17/11/2021	registers interest
Joven Sanchez	Heritage Now	Laurie Perry	Wonnarua Nation Aboriginal Corporation	Email	17/11/2021	email received; registered
Joven Sanchez	Heritage Now	Arthur Fletcher	Kawul Pty Ltd trading as Wonn1 Sites	Email	17/11/2021	email received
Joven Sanchez	Heritage Now	Tracey White	Mayaroo	Email	17/11/2021	PA is outside their area of interest
Lara Tooby	Heritage Now	Steven Hickey	Widescope Indigenous Group	Email	17/11/2021	registers interest
Joven Sanchez	Heritage Now	Kerrie Brauer	Awabakal Traditional Owners Aboriginal Corporation	Email	18/11/2021	not within their Awabakal Cultural Boundary
Joven Sanchez	Heritage Now	Ryan Johnson & Darleen Johnson- Carroll	Murra Bidgee Mullangari Aboriginal Corporation	Email	18/11/2021	registers interest
Joven Sanchez	Heritage Now	Confidential RAP 2	Confidential RAP 2	Email	18/11/2021	registers interest

Contact	Organisation	Contacted by	Organisation	Method	Date	Comment/response
Lara Tooby	Heritage Now	Confidential RAP 3	Confidential RAP 3	Email	19/11/2021	registers interest
Lara Tooby	Heritage Now	Arthur Fletcher	Kawul Pty Ltd trading as Wonn1 Sites	Email	21/11/2021	registers interest
Joven Sanchez	Heritage Now	Carolyn Hickey	A1 Indigenous Services	Email	24/11/2021	registers interest
Tessa Boer-Mah	Heritage Now	Danny Franks	Tocomwall Pty Ltd	Email	26/11/2021	registers interest
Lara Tooby	Heritage Now	Kathleen Steward Kinchela	Yinarr Cultural Services	Email	30/11/2021	registers interest
Methodology Letter sent						
Carolyn Hickey	A1 Indigenous Services	Joven Sanchez	Heritage Now	Email	03/12/2021	
Christine Paul	Aboriginal Native Title Consultants	Joven Sanchez	Heritage Now	Email	03/12/2021	
Confidential RAP 1	Confidential RAP 1	Joven Sanchez	Heritage Now	Email	03/12/2021	
Paul Boyd & Lilly Carroll	Didge Ngunawal Clan	Joven Sanchez	Heritage Now	Email	03/12/2021	
Arthur Fletcher	Kawul Pty Ltd trading as Wonn1 Sites	Joven Sanchez	Heritage Now	Email	03/12/2021	
Tara Dever	Mindaribba Local Aboriginal Land Council	Joven Sanchez	Heritage Now	Email	03/12/2021	
Ryan Johnson & Darleen Johnson-Carroll	Murra Bidgee Mullangari Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	03/12/2021	
Danny Franks	Tocomwall Pty Ltd	Joven Sanchez	Heritage Now	Email	03/12/2021	
Confidential RAP 2	Confidential RAP 2	Joven Sanchez	Heritage Now	Email	03/12/2021	
Steven Hickey	Widescope Indigenous Group	Joven Sanchez	Heritage Now	Email	03/12/2021	
Confidential RAP 3	Confidential RAP 3	Joven Sanchez	Heritage Now	Email	03/12/2021	
Laurie Perry	Wonnarua Nation Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	03/12/2021	

Contact	Organisation	Contacted by	Organisation	Method	Date	Comment/response
Kathleen Steward Kinchela	Yinarr Cultural Services	Joven Sanchez	Heritage Now	Email	03/12/2021	
Methodology Responses						
Joven Sanchez	Heritage Now	Laurie Perry	Wonnarua Nation Aboriginal Corporation	Email	04/12/2021	Email received
Joven Sanchez	Heritage Now	Paul Boyd & Lilly Carroll	Didge Ngunawal Clan	Email	09/12/2021	Agrees with methodology
Joven Sanchez	Heritage Now	Ryan Johnson	Murra Bidgee Mullangari Aboriginal Corporation	Email	20/12/2021	Endorses the recommendations made
Notification Letter						
Sir or Madam	Heritage NSW	Joven Sanchez	Heritage Now	Email	03/12/2021	
CEO	Mindaribba Local Aboriginal Land Council	Joven Sanchez	Heritage Now	Email	03/12/2021	
Draft Report Sent for Review (Mar 18)						
Carolyn Hickey	A1 Indigenous Services	Joven Sanchez	Heritage Now	Email	18/03/2022	
Christine Paul	Aboriginal Native Title Consultants	Joven Sanchez	Heritage Now	Email	18/03/2022	
Confidential RAP 1	Confidential RAP 1	Joven Sanchez	Heritage Now	Email	18/03/2022	
Paul Boyd & Lilly Carroll	Didge Ngunawal Clan	Joven Sanchez	Heritage Now	Email	18/03/2022	
Arthur Fletcher	Kawul Pty Ltd trading as Wonn1 Sites	Joven Sanchez	Heritage Now	Email	18/03/2022	
Tara Dever	Mindaribba Local Aboriginal Land Council	Joven Sanchez	Heritage Now	Email	18/03/2022	
Ryan Johnson & Darleen Johnson-Carroll	Murra Bidgee Mullangari Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	18/03/2022	
Danny Franks	Tocomwall Pty Ltd	Joven Sanchez	Heritage Now	Email	18/03/2022	
Confidential RAP 2	Confidential RAP 2	Joven Sanchez	Heritage Now	Email	18/03/2022	

Contact	Organisation	Contacted by	Organisation	Method	Date	Comment/response
Steven Hickey	Widescope Indigenous Group	Joven Sanchez	Heritage Now	Email	18/03/2022	
Confidential RAP 3	Confidential RAP 3	Joven Sanchez	Heritage Now	Email	18/03/2022	
Laurie Perry	Wonnarua Nation Aboriginal Corporation	Joven Sanchez	Heritage Now	Email	18/03/2022	
Kathleen Steward Kinchela	Yinarr Cultural Services	Joven Sanchez	Heritage Now	Email	18/03/2022	
Responses to Draft Report						
Joven Sanchez	Heritage Now	Confidential RAP 1	Confidential RAP 1	Email	29/03/2022	Agrees with the review

Appendix 2 AHIMS Search Results

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : HN351-A

Client Service ID : 634343

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
37-6-2746	Black Creek RTA6	GDA	56	342896	6385639	Open site	Destroyed	Artefact : 5		102402
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	3467	
37-6-1340	Black Creek RTA 3	AGD	56	342812	6385305	Open site	Valid	Artefact : 3		102402,102600
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	2102	
37-6-2227	Elderslie Road OC2	GDA	56	345388	6386531	Open site	Valid	Artefact : 10		102402
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
37-6-1603	Redhouse Creek 1	AGD	56	346462	6384549	Open site	Valid	Artefact : 34		102113
	<u>Contact</u> T Russell	<u>Recorders</u>						<u>Permits</u>	2562	
37-6-1833	North Greta Site 1	GDA	56	348915	6385510	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
37-6-0043	Greta;	AGD	56	349467	6385021	Open site	Valid	Grinding Groove : -	Axe Grinding Groove	102646
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
37-6-2826	Black Creek RTA 10 IF	GDA	56	342879	6385621	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	3654	
37-6-2750	Black Creek RTA10 IF	GDA	56	342879	6385621	Open site	Valid	Artefact : 1		102402
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	3467	
37-6-0685	Black Creek RTA 1 (Brayshaw - Black Creek)	AGD	56	343278	6385345	Open site	Valid	Artefact : 2	Open Camp Site	3169,102056,102135,102402,102646
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
37-6-2160	Branxton Rail 12	GDA	56	345091	6384829	Open site	Valid	Artefact : 1		102402
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	3658	
37-6-1966	ERB2 (Greta)	GDA	56	345678	6387349	Open site	Valid	Artefact : 1		101344
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
37-6-2230	Elderslie Rd 1	AGD	56	346173	6386945	Open site	Valid	Artefact : 1		101978
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	3987	
37-6-0996	AGL 1	AGD	56	346261	6385543	Open site	Valid	Artefact : -		4749,102113,102646
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
37-6-4008	10052 Murrays Rise	GDA	56	342868	6386605	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
37-6-2153	Branxton Rail 5	GDA	56	342891	6385397	Open site	Valid	Artefact : 1		102402
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>		
37-6-2824	Branxton Rail 17	GDA	56	343644	6385315	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>						<u>Permits</u>	3658	
37-6-2226	Elderslie Road OC1	GDA	56	345823	6386353	Open site	Valid	Artefact : 5		

Report generated by AHIMS Web Service on 28/10/2021 for Trishia Palconit for the following area at Lat, Long From : -32.66491, 151.317874 - Lat, Long To : -32.605475, 151.398751.

Number of Aboriginal sites and Aboriginal objects found is 54

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SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	<u>Contact</u>	<u>Recorders</u>	Mr.Paul Irish,Mr.Paul Irish,Mr.Joshua Connelly					<u>Permits</u>		
37-6-2748	Black Creek RTA8/PAD/PACHD	GDA	56	342355	6385642	Open site	Valid	Artefact : 3, Aboriginal Resource and Gathering : -, Potential Archaeological Deposit (PAD) : -		102402
	<u>Contact</u>	<u>Recorders</u>	Janice Wilson					<u>Permits</u>		
37-6-2825	Black Creek RTA 7 IF	GDA	56	342612	6385619	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users,Janice Wilson					<u>Permits</u>	3654	
37-6-2749	Black Creek RTA9	GDA	56	342612	6385619	Open site	Destroyed	Artefact : 2		102402
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users,Janice Wilson,Mr.Kirwan William					<u>Permits</u>	3467	
37-6-2745	Black Creek RTA5IF	GDA	56	342846	6385630	Open site	Destroyed	Artefact : 1		102402
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users,Janice Wilson,Mr.Kirwan William					<u>Permits</u>	3467	
37-6-2156	Branxton Rail 8	GDA	56	343398	6385115	Open site	Destroyed	Artefact : 1		102402,10446 4
	<u>Contact</u>	<u>Recorders</u>	South East Archaeology,RPS Australia East Pty Ltd - Hamilton,Mr.Ben Slack					<u>Permits</u>		
37-6-2157	Branxton Rail 9	GDA	56	344778	6385357	Open site	Valid	Artefact : 1		102402
	<u>Contact</u>	<u>Recorders</u>	South East Archaeology					<u>Permits</u>		
37-6-1965	ERB1 (Greta)	GDA	56	345507	6387126	Open site	Valid	Artefact : -		101344,10240 2
	<u>Contact</u>	<u>Recorders</u>	MCH - McCardle Cultural Heritage Pty Ltd					<u>Permits</u>		
37-6-1967	ERB3 (Greta)	GDA	56	345975	6386861	Open site	Valid	Artefact : 1		101344,10240 2
	<u>Contact</u>	<u>Recorders</u>	MCH - McCardle Cultural Heritage Pty Ltd					<u>Permits</u>		
37-6-2257	Branxton RW 22/A	GDA	56	346147	6385002	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Mr.Peter Kuskie					<u>Permits</u>		
37-6-1602	PAD 21, RTA	AGD	56	346711	6384511	Open site	Valid	Potential Archaeological Deposit (PAD) : -		102113
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users					<u>Permits</u>	2562	
37-6-2751	Black Creek RTA13	GDA	56	342584	6385645	Open site	Destroyed	Artefact : 1		102402
	<u>Contact</u>	<u>Recorders</u>	Umwelt (Australia) Pty Limited - Individual users,Janice Wilson,Mr.Kirwan William					<u>Permits</u>	3467	
37-6-2271	Elderslie Road PAD1	AGD	56	345300	6386300	Open site	Valid	Potential Archaeological Deposit (PAD) : -		102402
	<u>Contact</u>	<u>Recorders</u>	Mr.Paul Irish,Mr.Paul Irish					<u>Permits</u>		
37-6-3219	Huntlee 3	GDA	56	345535	6388351	Open site	Destroyed	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	RPS Australia East Pty Ltd - Hamilton,Ms.Laraine Nelson,Mr.Ben Slack					<u>Permits</u>		
37-6-2773	DA1	AGD	56	348250	6387500	Open site	Valid	Grinding Groove : 1		

Report generated by AHIMS Web Service on 28/10/2021 for Trishia Palconit for the following area at Lat, Long From : -32.66491, 151.317874 - Lat, Long To : -32.605475, 151.398751.

Number of Aboriginal sites and Aboriginal objects found is 54

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SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
	Contact	Recorders						Permits		
37-6-2151	Branxton Rail 3	GDA	56	342352	6385118	Open site	Valid	Artefact : 1		102402
	Contact	Recorders						Permits	3654	
37-6-2771	RPS Standen Lane	GDA	56	342438	6385266	Open site	Valid	Artefact : 1		
	Contact	Recorders						Permits		
37-6-2752	Black Creek RTA21/PAD/PACHD	GDA	56	342664	6385716	Open site	Valid	Potential Archaeological Deposit (PAD) : 1		102402
	Contact	Recorders						Permits	3467	
37-6-2827	Black Creek RTA 11 IF	GDA	56	342898	6385613	Open site	Valid	Artefact : 1		
	Contact	Recorders						Permits	3654	
37-6-1339	Black Creek RTA2 incorporating previously recorded PAD 20 (NPWS Site # 37-6-1371)	GDA	56	343205	6385649	Open site	Partially Destroyed	Artefact : 50		101116,10211 3,102600
	Contact	Recorders						Permits	2096,2562,3467	
37-6-1315	Anvil Creek RTA 13 IF	AGD	56	344320	6384836	Open site	Valid	Artefact : 1		102402,10260 0,104464
	Contact	Recorders						Permits	2102	
37-6-2159	Branxton Rail 11	GDA	56	344754	6384933	Open site	Valid	Artefact : 1		102402
	Contact	Recorders						Permits		
37-6-3657	Huntlee 16	GDA	56	346180	6388574	Open site	Valid	Artefact : -		
	Contact	Recorders						Permits		
37-6-2770	Branxton WWTW 8/A	GDA	56	346289	6384967	Open site	Valid	Artefact : 13		
	Contact	Recorders						Permits		
37-6-2747	Black Creek RTA7 IF	GDA	56	342612	6385619	Open site	Valid	Artefact : 1		102402
	Contact	Recorders						Permits	3467	
37-6-2155	Branxton Rail 7	GDA	56	342738	6385081	Open site	Valid	Artefact : 1		102402
	Contact	Recorders						Permits		
37-6-2744	Black Creek RTA4 (Incorporating #37-6-2752 Black Creek RTA21/PAD/PACHD)-	GDA	56	342767	6385630	Open site	Destroyed	Artefact : 1		102402
	Contact	Recorders						Permits	3467	
37-6-2152	Branxton Rail 4	GDA	56	342834	6385505	Open site	Valid	Artefact : 1		102402
	Contact	Recorders						Permits		
37-6-1371	PAD20 Black Creek	AGD	56	343052	6385455	Open site	Valid	Potential Archaeological Deposit (PAD) : 1, Artefact : -		102402,10260 0
	Contact	Recorders						Permits	2096,2562	
37-6-2158	Branxton Rail 10	GDA	56	344673	6384966	Open site	Valid	Artefact : 1		102402
	Contact	Recorders						Permits	3658	

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AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : HN351-A

Client Service ID : 634343

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
37-6-2161	Branxton Rail 13	GDA	56	345344	6384668	Open site	Valid	Artefact : 1		102402
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
37-6-2270	Elderslie Road IF1	AGD	56	345560	6386684	Open site	Valid	Artefact : 1		102402
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
37-6-2258	Branxton WWTW 2/A	GDA	56	346627	6385197	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u> 3362							
37-6-3871	Black Creek RTA13	GDA	56	342584	6385645	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
37-6-2154	Branxton Rail 6	GDA	56	342778	6385156	Open site	Valid	Artefact : 1		102402
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
37-6-3870	Black Creek RTA12	GDA	56	343107	6385682	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
37-6-2823	Branxton Rail 18	GDA	56	343644	6385315	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u> 3654							
37-6-1720	Red House Creek 1b/PAD	GDA	56	346452	6385184	Open site	Not a Site	Potential Archaeological Deposit (PAD) :-		100451,10054 3,102113
	<u>Contact</u> Searle	<u>Recorders</u>	<u>Permits</u> Doctor.Jodie Benton							

** Site Status

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

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

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

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

Report generated by AHIMS Web Service on 28/10/2021 for Trishia Palconit for the following area at Lat, Long From : -32.66491, 151.317874 - Lat, Long To : -32.605475, 151.398751.

Number of Aboriginal sites and Aboriginal objects found is 54

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Appendix 3 Site Cards

Aboriginal Site Recording Form

AHIMS Registrar
PO Box 1967, Hurstville 2220 NSW

AHIMS site ID: 37-6-4187

Date recorded: 25-02-2022

Site Location Information

Site name: HN-RP-A01

Easting: 345647

Northing: 6388537

Coordinates must be in GDA (MGA)

Horizontal Accuracy (m):

5

Zone: 56

Location method:

Non-Differential GPS

Recorder Information

(The person responsible for the completion and submission of this form)

Title

Surname

First name

Ms.

Tooby

Lara

Organisation: Heritage Now

Address: 105/13a Blackall Street

Phone: 0416094225

E-mail: lara@heritagenow.com.au

Site Context Information

Land Form
Pattern:

Undulating Plain

Land Use:

Farming Low Intensity

Land Form
Unit:

Slope

Vegetation:

Cleared

Distance to
Water (m):

40

Primary
Report:

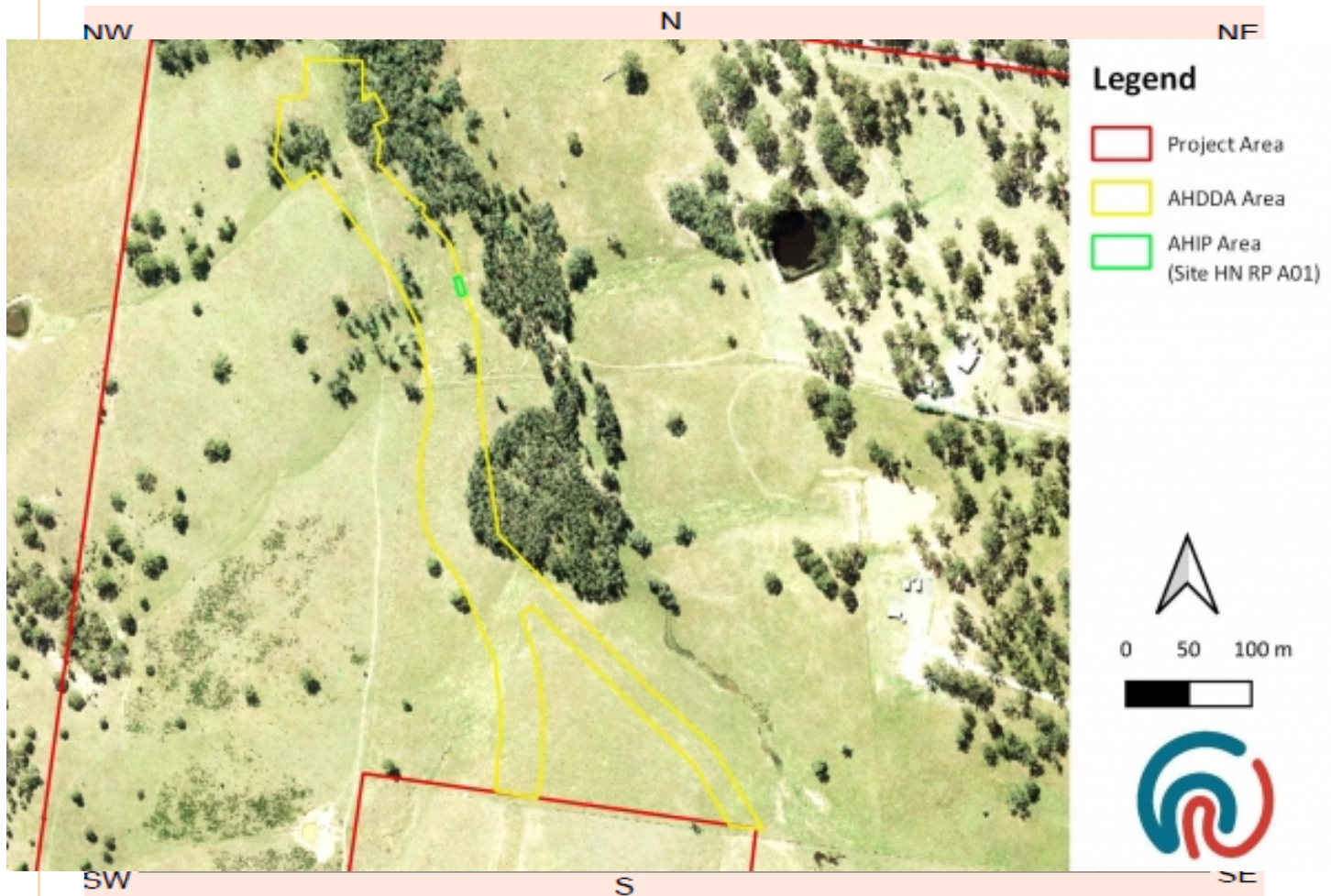
Heritage Now ACHA - Water & Sewer Infrastructure, Radford Park

How to get
to the site:

Permission must be obtained from landholder.

Other site
information:

Site location map



Site contents information

open/closed site:

Site condition:

Features:

Features:	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
1. <input type="text" value="Artefact"/>	<input type="text" value="2"/>	<input type="text" value="15"/>	<input type="text" value="5"/>

Description:

AHIP extent map covers artefact area + buffer. Artefacts include a pink silcrete flake, and yellow IMT broken flake (see report for dimensions)

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Features:

Features:	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
2. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Description:

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>

Description:

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
-----------------	---------------	------------	--------------

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
4.	<input type="text"/>	<input type="text"/>	<input type="text"/>

Description:

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
-----------------	---------------	------------	--------------

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
----------------------	----------------------	----------------------	----------------------

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
5.	<input type="text"/>	<input type="text"/>	<input type="text"/>

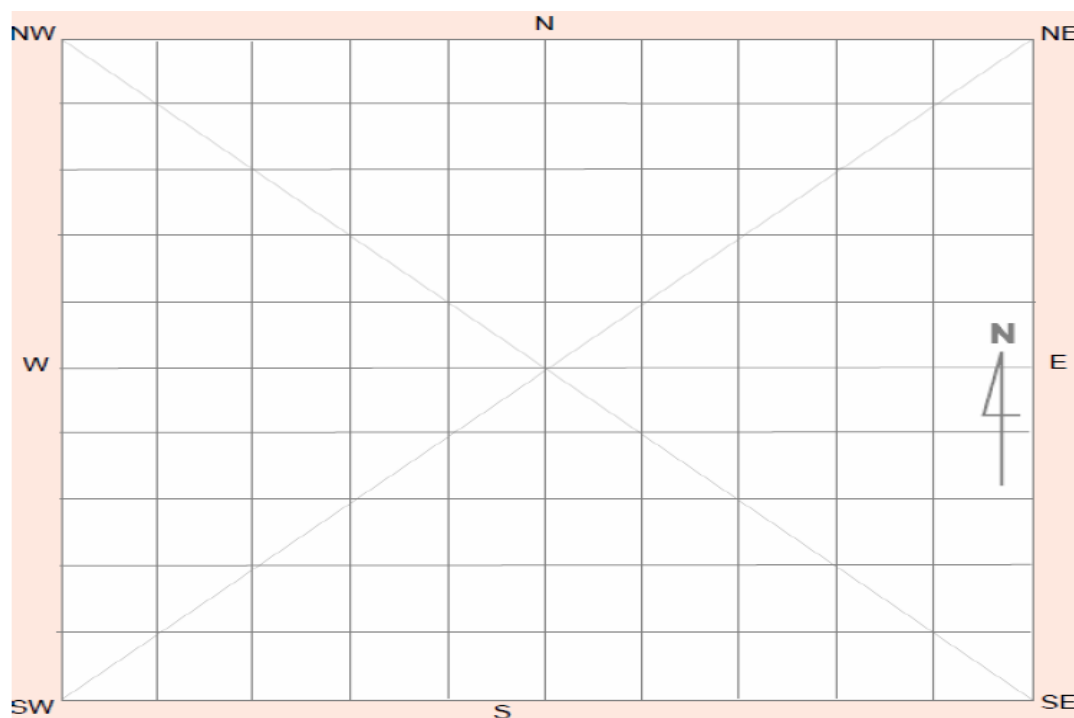
Description:

Scarred Trees

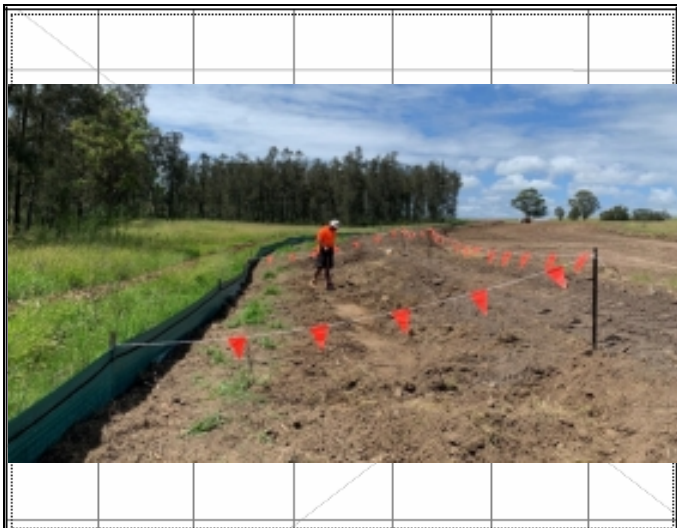
Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
-----------------	---------------	------------	--------------

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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Other Site Info:

Site plan

Site photographs



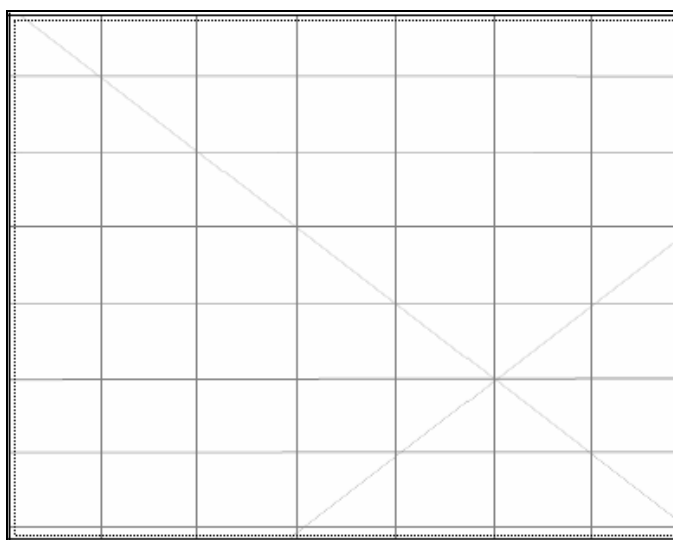
Description: Area cordoned off, view south east.



Description: Silcrete artefact (ventral surface)



Description: IMT artefact (ventral surface)



Description:

Site restrictions

Do you want to
Restrict this site?: ☐

Restriction type: Gender ☐ General ☐ Location ☐

Why is this site restricted?:

Further information contact

Title Surname First name

Organisation:

Address:

Phone: E-mail:

Aboriginal Site Recording Form

AHIMS Registrar
PO Box 1967, Hurstville 2220 NSW

AHIMS site ID: 37-6-4193

Date recorded: 26-03-2022

Site Location Information

Site name: HN RP PAD01

Easting: 345753 Northing: 6388356 Coordinates must be in GDA (MGA)

Horizontal Accuracy (m): 2

Zone: 56 Location method: Non-Differential GPS

Recorder Information

(The person responsible for the completion and submission of this form)

Title Surname First name
Ms. Tooby Lara

Organisation: Heritage Now

Address: 105/13a Blackall Street

Phone: 0416094225 E-mail: lara@heritagenow.com.au

Site Context Information

Land Form Pattern: Undulating Plain Land Use: Farming Low Intensity

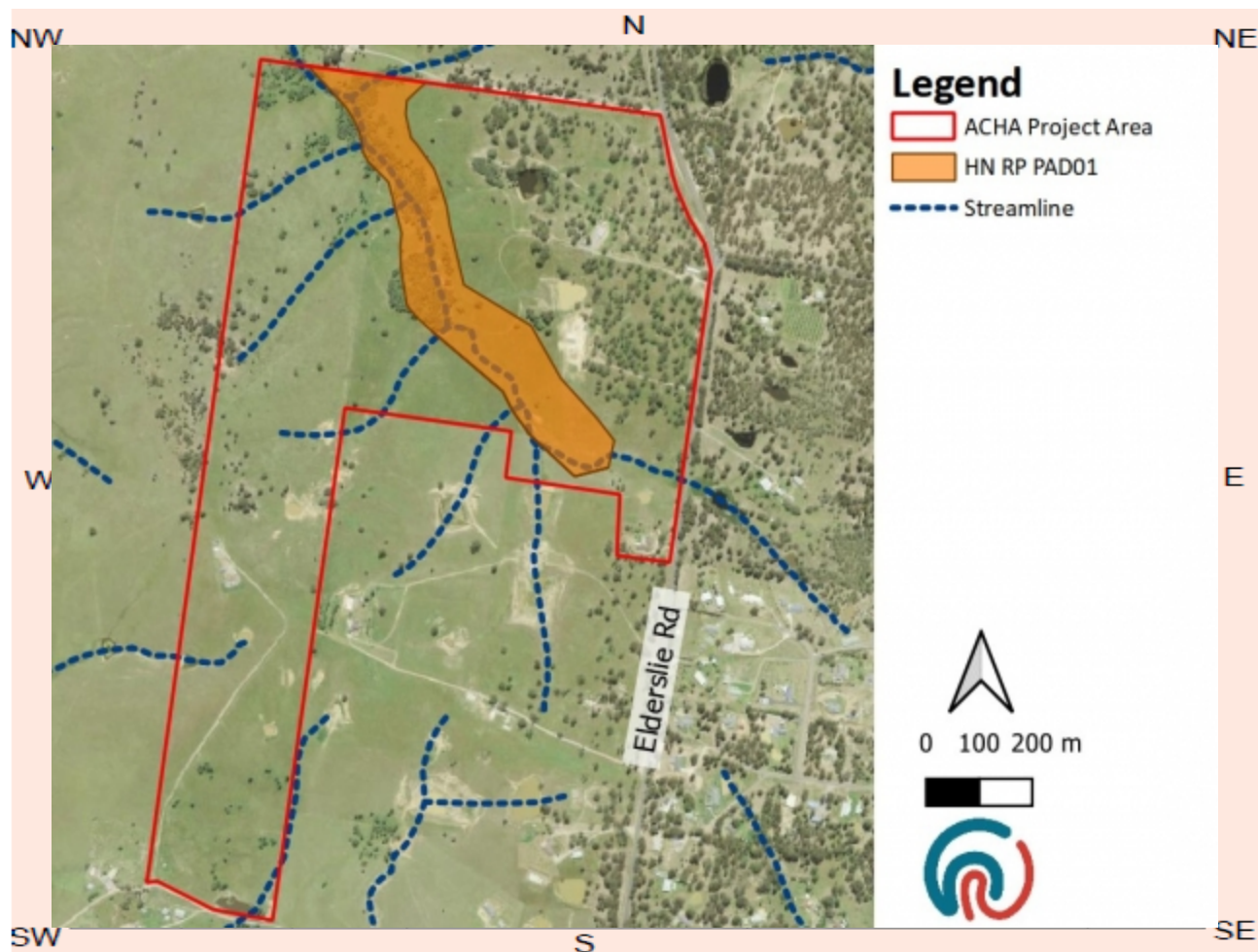
Land Form Unit: Stream Bank Vegetation: Scrub

Distance to Water (m): 2 Primary Report: Heritage Now 2022, Radford Park, Branxton ACHA

How to get to the site: Currently private property; contact land holder.

Other site information: Refer to ACHA for full assessment. It was recommended this area be avoided by proposed subdivision, but if not avoidance is not feasible, then test excavations should occur in the area in accordance with the Code of Practice.

Site location map



Site contents information

open/closed site:

Site condition:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
1. <input type="text" value="Potential Archaeological Deposit"/>	<input type="text"/>	<input type="text" value="900"/>	<input type="text" value="120"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Description:

A PAD along a creekline running southeast through a proposed subdivision area (ACHA Project Area), was assessed as a PAD due to relatively lower levels of disturbance (then the rest of the Project Area), its association with freshwater stream, and other landscape features.

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)	Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
2. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Description:

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>

Description:

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
4.	<input type="text"/>	<input type="text"/>	<input type="text"/>

Description:

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Features:

	Number of features	Length of feature(s) extent (m)	Width of feature (s) extent (m)
5.	<input type="text"/>	<input type="text"/>	<input type="text"/>

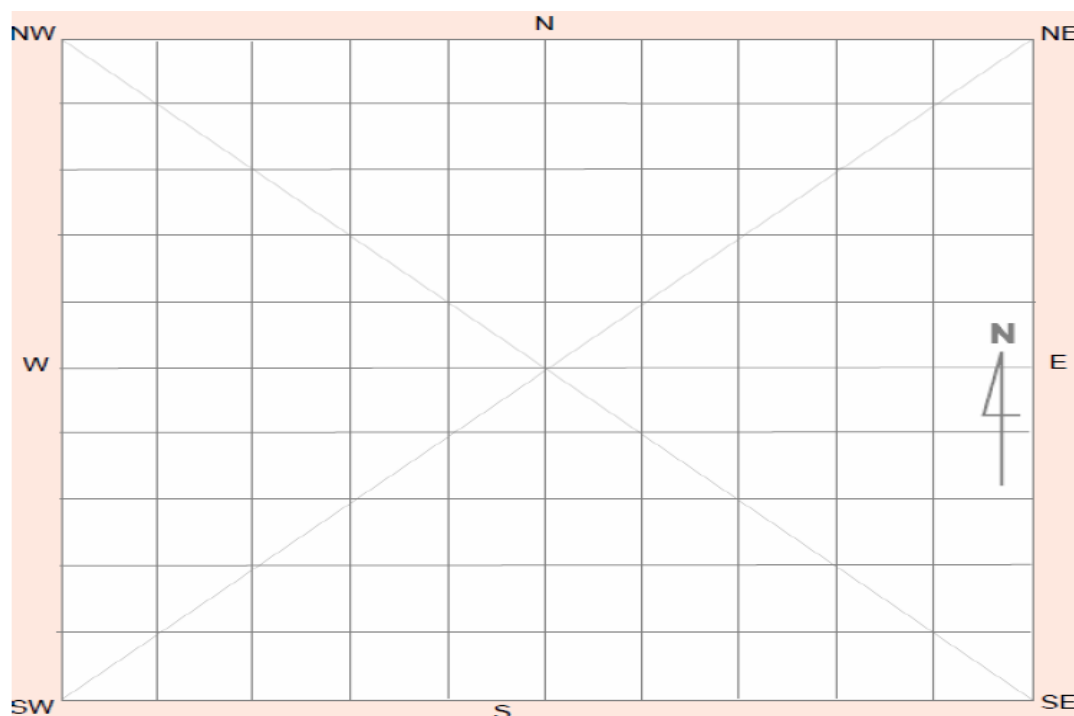
Description:

Scarred Trees

Scar Depth (cm)	Regrowth (cm)	Scar shape	Tree Species
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Other Site Info:

Refer to ACHA for full assessment. It was recommended this area be avoided by proposed subdivision, but if not avoidance is not feasible, then test excavations should occur in the area in accordance with the Code of Practice.

Site plan

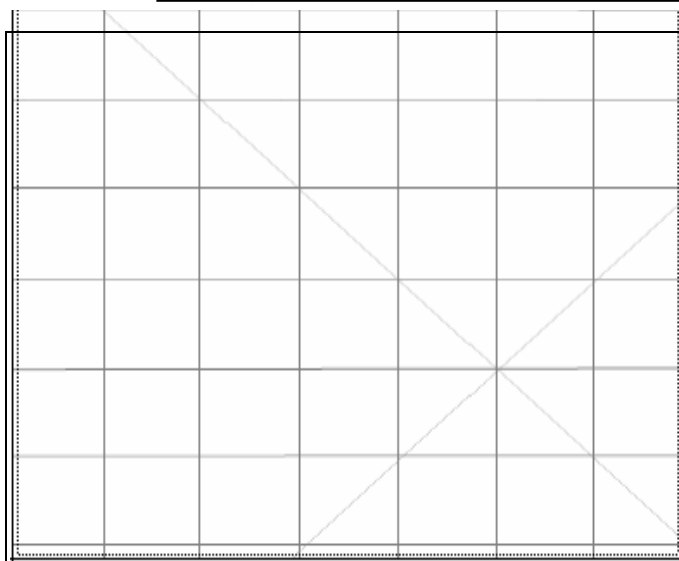
Site photographs



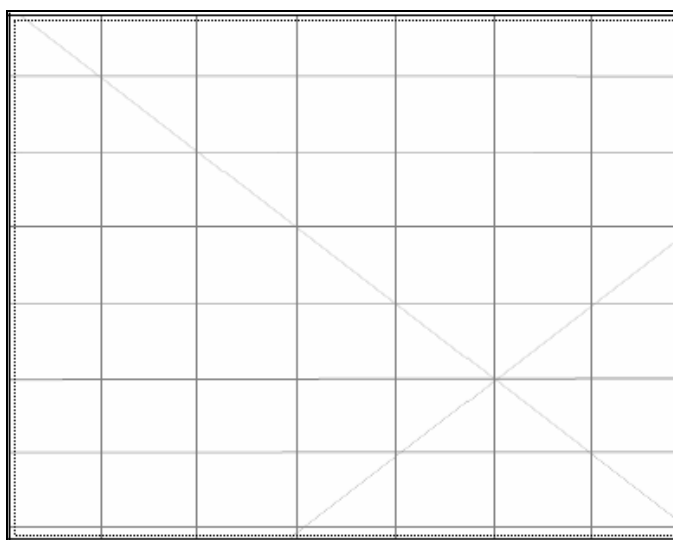
Description: Southern portion of PAD area: slightly elevated area overlooking creek. View southwest.



Description: Northern portion of PAD area overlooking creek: slightly elevated overlooking creek. View southwest.



Description:



Description:

Site restrictions

Do you want to Restrict this site?: ☐

Restriction type: Gender ☐ General ☐ Location ☐

Why is this site restricted?:

Further information contact

Title Surname First name
Organisation:
Address:
Phone: E-mail:

