

Aboriginal Objects Due Diligence Assessment Employment Land Rezoning – Technical Study - Silverdale Silverdale, NSW 2752

Prepared for Wollondilly Shire Council

Prepared by Niche Environment and Heritage | 8 August 2022



A leading independent specialist environmental and heritage consultancy

8 August 2022

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Dear Chandran,

Re: Employment Land Rezoning – Technical Study - Silverdale – Aboriginal Objects Due Diligence Assessment (Niche ref: #7244)

Based on this Aboriginal Objects Due Diligence Assessment (DD), the desktop assessment and the results of the site inspection identified high levels of disturbance and modification to the ground surface within most of the Activity Area. Previous clearance of vegetation and the use of land for residential and agricultural practices has lowered the potential for in situ archaeological remains in most of the Activity Area. However, areas within the Activity Area that have not been subjected to historical vegetation clearance and disturbance and are located within 200m of a watercourse have a higher potential for in situ archaeological in the Activity Area.

The site inspection of four properties and the visual inspection of one property did not identify any Aboriginal Objects within the Activity Area.

The Due Diligence Code states that where a DD has occurred and concluded that Aboriginal Objects occur or are likely to occur, further detailed investigation and impact assessment is required. If following this detailed investigation and impact assessment, it is determined that harm will occur to Aboriginal Objects, then an AHIP application is required.

It is recommended that:

- An Aboriginal Cultural Heritage Assessment (ACHA) be prepared by a suitably qualified archaeologist in accordance with the Guide to Investigating, assessing reporting on Aboriginal cultural heritage in NSW (NSW Office of Environment and Heritage [OEH], 2011) and the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010c). The ACHA would be required to support an application for an AHIP under s.90 of the National Parks and Wildlife Act 1974 should Aboriginal Objects and/or sites be identified.
- The proposed ACHA should document Aboriginal community consultation carried out in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010b).

Please do not hesitate to contact me on **0488 774 501** or via email: cfreeman@niche-eh.com should you have any questions or would like to clarify details of this assessment.

Yours sincerely



Chelsea Freeman
Heritage Consultant
Niche Environment and Heritage

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1. Introduction

1.1 The Proponent

Niche Environment and Heritage Pty Ltd (Niche) was commissioned by Wollondilly Shire Council to undertake an Aboriginal Objects Desktop Due Diligence Assessment for a preliminary Employment Land Rezoning Proposal for eleven (11) parcels of land in Silverdale NSW currently zoned as RU2 – Rural Landscape and covering a total area of approximately 231,833 m² (hereafter referred to as the ‘Activity Area’, Figure 1 and Figure 2).

1.2 The Activity Area

1.2.1 Location

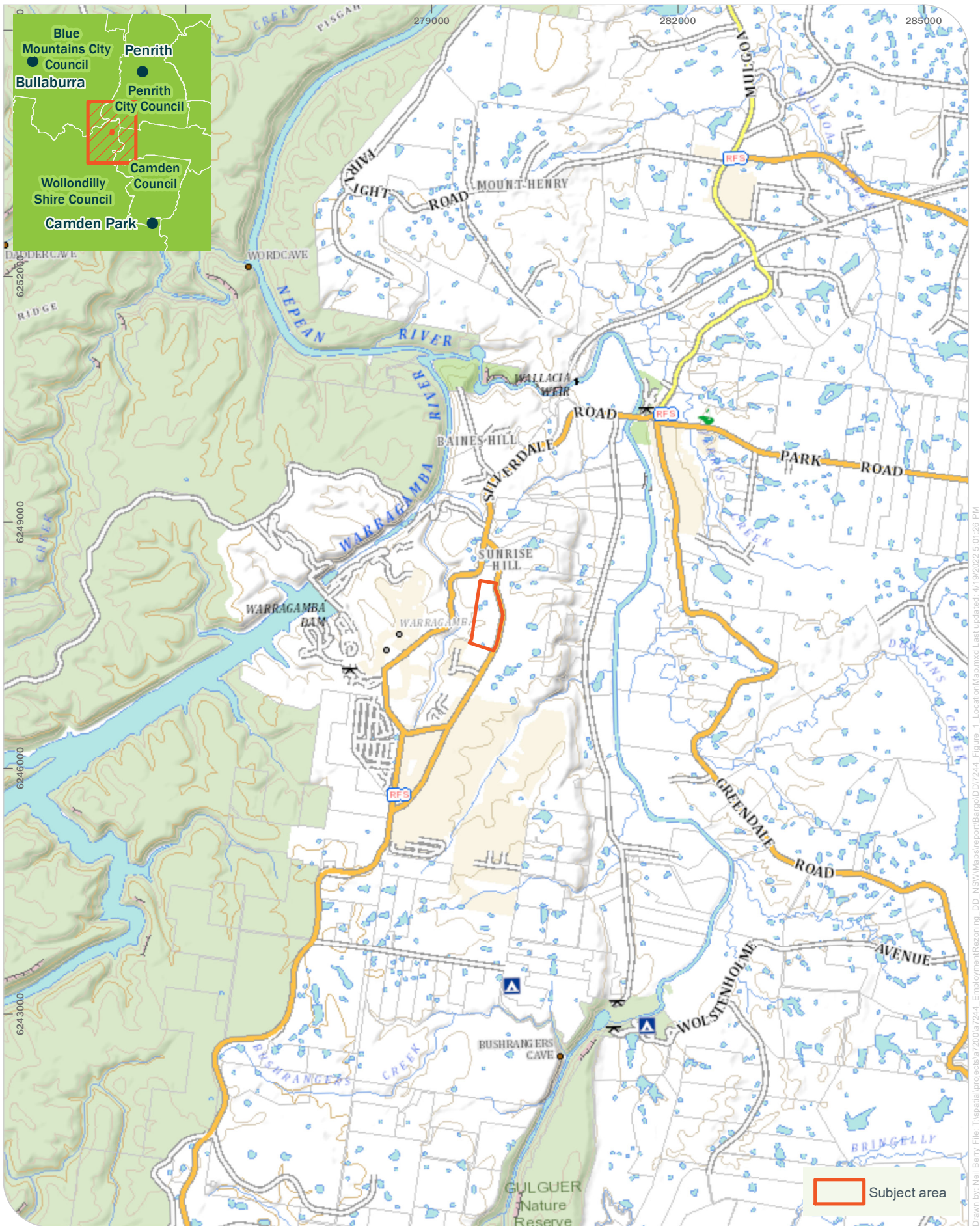
The Activity Area is located in Silverdale, NSW and comprises of eleven (11) parcels of land currently zoned as RU2 – Rural Landscape and covering a total area of approximately 231,833 m². An overview of the land parcels contained within the Activity Area are provided in Table 1 below. The Activity Area is situated within the Wollondilly Shire Council Local Government Area (LGA), within Camden County and within the boundaries of the Tharawal Local Aboriginal Land Council (LALC).

Table 1. Activity Area

Lot DP	Address	Area (m ²)	Current Zoning
Lot 4 DP 38325	2395 Silverdale Rd	20,115	RU2 – Rural Landscape
Lot 1 DP 742841	2387 Silverdale Rd and 2389 Silverdale Rd	16,471	RU2 – Rural Landscape
Lot 1 DP 162241	2385 Silverdale Rd	7,840	RU2 – Rural Landscape
Lot 6 DP 38325	2375 Silverdale Rd	28,652	RU2 – Rural Landscape
Lot 1 DP 124011	2365 Silverdale Rd	25,911	RU2 – Rural Landscape
Lot 8 DP 1208208	2355 Silverdale Rd	26,770	RU2 – Rural Landscape
Lot 9 DP 38325	2345 Silverdale Rd	26,385	RU2 – Rural Landscape
Lot 2 DP 866061	2339 Silverdale Rd	13,045	RU2 – Rural Landscape
Lot 1 DP 866061	2335 Silverdale Rd	12,948	RU2 – Rural Landscape
Lot 11 DP 38325	2325 Silverdale Rd	25,606	RU2 – Rural Landscape
Lot 12 DP 38325	2319 Silverdale Rd	28,090	RU2 – Rural Landscape
Total		231,833	RU2 – Rural Landscape

1.3 The proposed activity

Wollondilly Shire Council are undertaking preliminary Environmental Impact Technical Studies as a precursor to the preparation of the Employment Land Rezoning Proposal for the Wollondilly Shire Council. The proposed activity will involve the rezoning of eleven lots currently listed as RU2 – Rural Landscape, approximately 24 ha, of which 50% is identified as unconstrained. The Activity Area is proposed for redevelopment to allow for expansion of the existing business and new entrants in Silverdale.



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0 1
km
GDA 1994 MGA Zone 56

Niche PM: Chelsea Freeman
Niche Proj. #: 7244
Client: Wollondilly Shire Council

Location Map
Employment Land Rezoning - Silverdale

Figure 1



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1.4 Statutory controls

1.4.1 Aboriginal Objects Due Diligence Assessment

The *National Parks and Wildlife Act 1974* (NPW Act), administered by Heritage NSW of the Department of Premier and Cabinet (DPC), is the primary legislation for the protection of some aspects of Aboriginal cultural heritage in New South Wales (NSW). Part 6 of the NPW Act provides specific protection for Aboriginal Objects and declared Aboriginal Places by establishing offences of harm.

The NPW Act provides that a person who exercises due diligence in determining that their actions will not harm Aboriginal Objects has a defence against prosecution if they later unknowingly harm an object without an Aboriginal Heritage Impact Permit (AHIP).

Anyone proposing to carry out an activity that may harm an Aboriginal object or a declared Aboriginal place must investigate, assess, and report on the harm that may be caused by the activity the propose.

The *Due Diligence Code of Practice for the Protection of Aboriginal Objects* (DECCW, 2010) sets out a process for individuals and organisations to follow to determine whether an Aboriginal object will be harmed by an activity, whether further investigation is needed, and whether that harm requires an AHIP.

This report was undertaken in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW, 2010).

1.5 Objectives

The aim of the assessment was to assess whether Aboriginal Objects and/or Places are present or are likely to occur within or in close proximity to the Activity Area, where those places are, and if those Aboriginal Objects and/or places may be impacted by the proposed works. This will determine whether further investigation is required.

1.6 Assessment methodology

This Aboriginal Objects Desktop Due Diligence Assessment follows the process outlined in Plate 1.

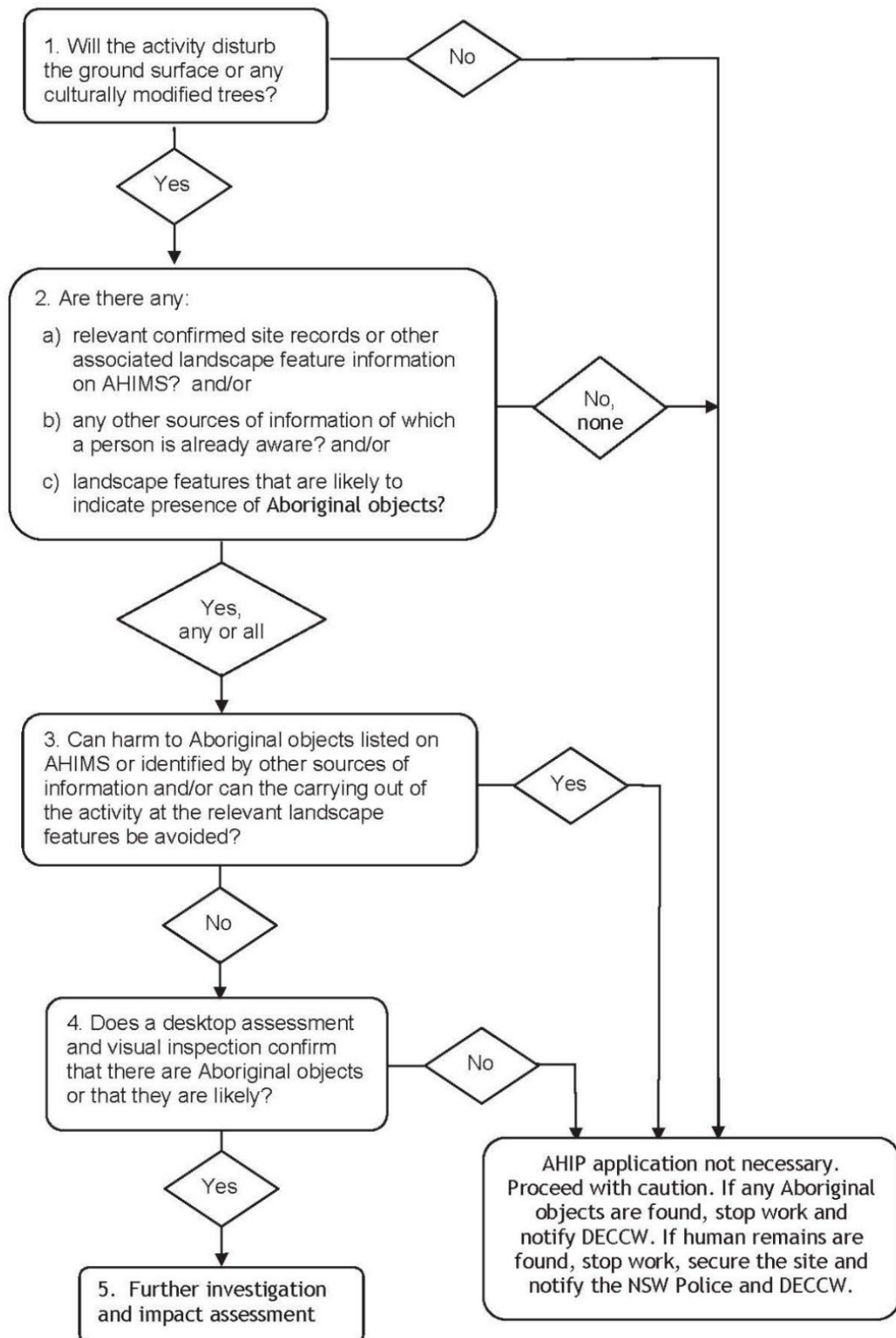


Plate 1: The due diligence assessment process

2. Environmental Context

2.1 Topography

The Activity Area is located within the Woronora Plateau, a physio-geographic region of the Sydney Basin. The plateau is an area of uplifted Hawkesbury sandstone which has been cut by deep creek gullies flowing north into the Georges River. The topography of the Activity Area is characterised by undulating to rolling low hills with slopes gradients between 10-25% with a local relief of 20 – 80m (DPIE, 2020). The landscape has broad convex crests, moderately inclined side slopes with wide benches, localised rock outcrop on low broken scarps.

2.2 Geology and soils

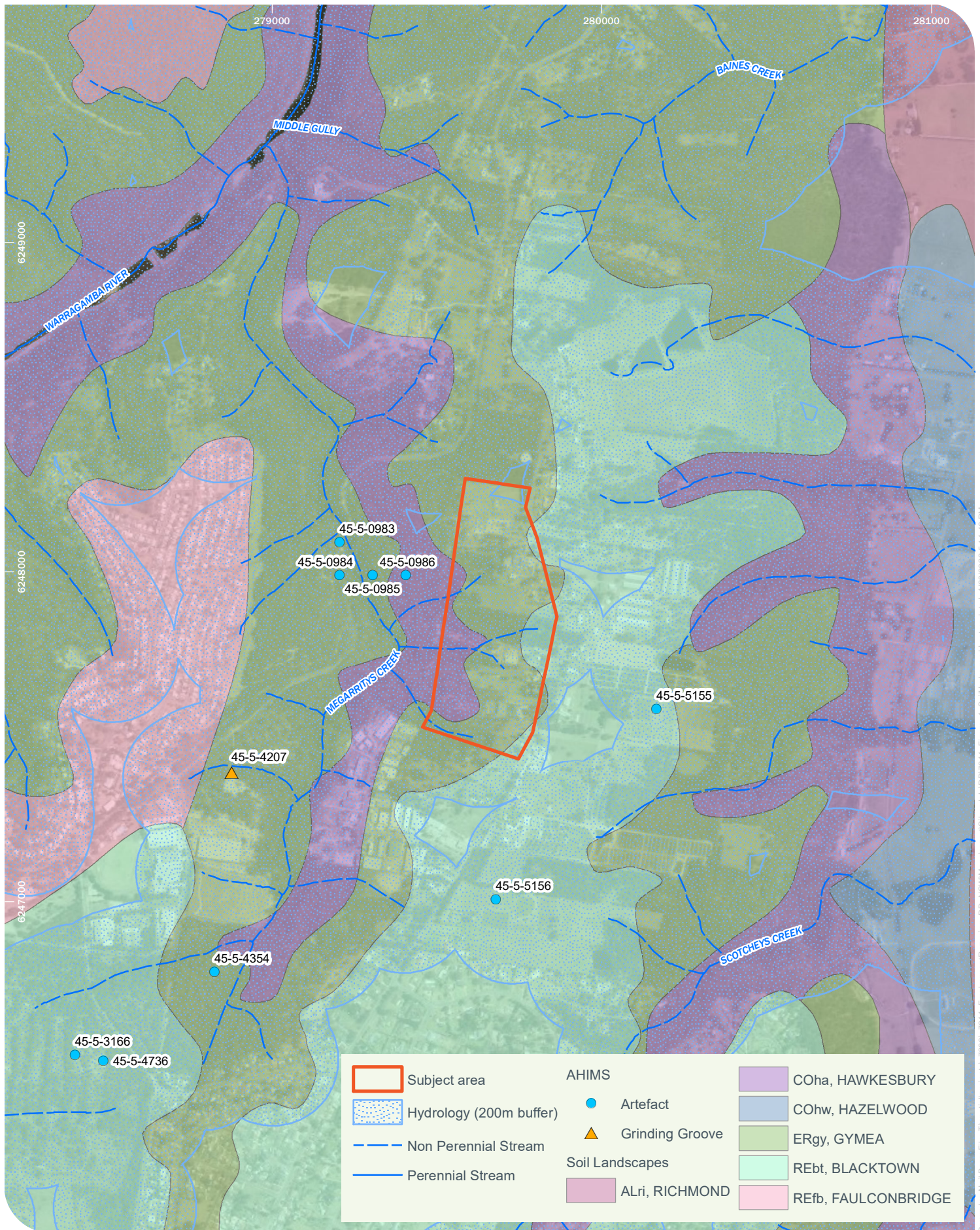
The Activity Area is largely characterised by three soil landscapes: the GyMEA erosional soil landscape, Hawkesbury colluvial soil landscape in the west, and Blacktown residual soil landscape in the east. The Activity Area is largely dominated by the GyMEA soil landscape which consists of undulating to rolling rises and low gills on Hawkesbury Sandstone. The underlying geology of the Activity Area is the Hawkesbury Sandstone formation which is a medium to coarse-grained quartz sandstone with minor shale and laminate lenses (DPIE, 2020) (Figure 3 on Page 8).

The dominant soil materials within the GyMEA soil landscape consist of shallow to moderately deep (30 – 100 cm) Yellow Earths and Earthy Sands on crests and insides of benches and shallow (<20 cm) Siliceous Sands on leading edges of benches. Localised Gleyed Podzolic soils and Yellow Podzolic soils are found on shale lenses, with shallow to moderately deep (<100 cm) Siliceous Sands and Leached Sands along drainage lines (DPIE, 2020). The topsoils (A horizon) consist of a loose consistency sandy loam which becomes lighter with depth and ranges from dull yellowish-brown to brown. Small inclusions of sandstone, organic materials, platy ironstone fragments, charcoal and roots are common. Subsoils consist of a yellowish-brown clayey sand with red and orange mottling occurring with depth (B horizon). Sandstone and ironstone fragments become more frequent and organic materials less apparent. Deeper soils consist of a yellowish sandy clay to yellowish brown clay (B or C horizon) and occurs over coarse sandstone or shale bedrock.

The eastern portion of the Activity Area is intersected by portions of the Blacktown soil landscape. The dominate soil materials consist of shallow to moderately deep (>100 cm) hardsetting mottled texture contrast soils. Red and brown Podzolic Soils occur on crests, grading to Yellow Podzolic Soils on lower slope and in drainage lines (DPIE, 2020). The topsoils (A horizon) consist of a friable brownish black loam to clay loam with the A2 horizon consisting of a brown clay loam to silty clay which is hardsetting. The lower B horizon consists of a brown light to medium clay with frequent red, yellow or grey mottling occurring within the soils and becomes more numerous with depth. The C horizon is made up of a plastic light grey silty clay to heavy clay which is a hardsetting basal clay with gravel-sized shale fragment inclusions.

The western extant of the Activity Area is intersected by the Hawkesbury soil landscape which runs long the Megarritys Creek line. This landscape typically occurs on steep, rugged Hawkesbury Sandstone slopes and ridges of the Hornsby Plateau in the north-east, the Blue Mountains Plateau in the west and Woronora Plateau in the south-east (DPIE, 2020). The soil profile consists of shallow (<50 cm), discontinuous Lithosols/Siliceous Sands associated with rock outcrops. Earthy Sands and Yellow Earths and locally deep sands on inside of benches and along joints and fractures. Yellow Podzolic soils and Red Podzolic soils are associated with shale lenses, and siliceous sands on narrow valley flats (DPIE, 2020). The topsoils are characterised by loose, coarse-grained quartz sands which varies in colour from brownish black to dull

yellowish brown. The subsoils consist of earthy yellowish-brown sandy clay loam, to pale strongly pedal light clays, derived from shale lenses within the Hawkesbury Sandstone.



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2.3 Vegetation

The Activity Area has largely been cleared of any native vegetation due to urban development. Any remnants of vegetation surrounding the Activity Area includes mostly dry sclerophyll woodland and open forest. Within this landscape, Common species include *Eucalyptus gummifera* (red bloodwood), *E. eximia* (yellow bloodwood), *E. haemastoma* (scribbly gum), *E. capitellata* (brown stringybark), *E. fibrosa* (broad-leaved ironbark), *E. agglomerata* (blue-leaved stringybark) and *Banksia serrata* (old man banksia). The dry sclerophyll understorey consists of shrubs from the families Epacridaceae, Myrtaceae, Fabaceae and Proteaceae, as well as *Acacia spp.* and *Casuarina spp.* (DPIE, 2020).

2.4 Hydrology

The closest water course is a first order non-perennial tributary (Strahler system) of Megarritys Creek located approximately 150 m west of the Activity Area (running north-south). Some smaller non-perennial drainage lines occur within the Activity Area which run into Megarritys Creek and into the major perennial Warragamba River, located approximately 1km north-west of the Activity Area. The Nepean River and associated non-perennial tributaries such as Baines Creek and Scotcheys Creek are located to the east of the Activity Area

2.5 Past land use and disturbance

The Activity Area is in a largely urban and industrial area within the suburb of Silverdale. The Activity Area has been historically cleared and disturbed by farming, landscaping, and urban development. Historical aerial imagery shows that areas associated with urban development have been completely cleared of native vegetation prior to the 1950 (Figure 4c). Some native vegetation remains along the western boundary of the Activity Area, however, has cleared and disturbed between 1986 to 2002 (Figure 4b and 4a). 2005 further clearing of the northern boundary of the Activity Area is evident (Figure 5a). The development of greater infrastructure in the Activity Area is evident from 1986 (Figure 5b), with development continuing in 2005 (Figure 4a).

2.6 Environmental Context Summary

In summary, the overall context of the Activity Area provides a picture of a landscape that has been subject to significant levels of historical disturbance relating to the clearing of native and introduced vegetation, farming, and associated infrastructure. This suggests that any potential archaeology within the Activity Area will largely be disturbed. However, areas revealing limited or no historical disturbance may contain higher levels of sub-surface potential due to the Blacktown and Gynea soil profiles of the Activity Area indicating relatively deep A1 Horizon. This together with close proximity to water has the potential to reveal areas of high archaeological sensitivity. The geology of the Activity Area primarily consists of shales and coarse-grained quartz sandstone, neither source is conducive to tool production. This may limit the archaeological potential of the Activity Area. If stone tools are evident, they may be of a different material and therefore brought in from elsewhere.



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3. Aboriginal Objects due diligence assessment

Is the proposed activity a low impact activity as defined by the Regulation?

No.

The activity is not a low impact activity as defined under section 80B of the National Parks and Wildlife Regulation 2009 ('the Regulation') because:

- It involves earthworks associated with rezoning of land for industrial or light industrial use.

Step 1 - Will the activity disturb the ground surface or any Aboriginal culturally modified (scarred) trees?

Yes.

The proposed activity involves earthworks and vegetation clearance associated with the demolition of existing buildings and structures, tree removal and levelling of the land. The proposed activity therefore has the potential to disturb Aboriginal Objects, if present. No trees hold signs of cultural modification within the area of the proposed works.

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

No.

Heritage Registers

AHIMS

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) was conducted on the 19 April 2022 (AHIMS Client Service ID#676125) for the following area: Latitude, Longitude from - 33.9001, 150.5858 and Latitude, Longitude to - 33.8759, 150.6476 (see Appendix 1) around the Activity Area. This allows for an assessment of the site features that can be expected based on those that are currently recorded in the wider local context.

A total of thirteen (13) Aboriginal cultural heritage sites were located within the AHIMS search zone, however no previously recorded Aboriginal cultural heritage sites exist within the Activity Area or adjacent (i.e., within 200 m) to the Activity Area (Figure 5). Table 2 outlines AHIMS sites that are located within 1 km of the Activity Area.

Table 2: AHIMS sites within 1 km of the Activity Area

AHIMS ID	Site Name	Site Features	Potential to be harmed
45-5-0986	PAD 4	Shelter with deposit, Artefact	Nil
45-5-0985	PAD 3	Shelter with deposit, Artefact	Nil
45-5-0984	PAD 2	Shelter with deposit, Artefact	Nil
45-5-0983	GPAD 1	Shelter with deposit, Artefact	Nil
45-5-5155	SD-IF-01	Artefact	Nil
45-5-5156	SD-IF-02	Artefact	Nil
45-5-4207	Production Ave Grinding Grooves 1	Grinding Groove	Nil
45-5-4354	MC-OS-01	Artefact	Nil

No previously registered Aboriginal cultural heritage sites would not be impacted by the proposed activity.

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

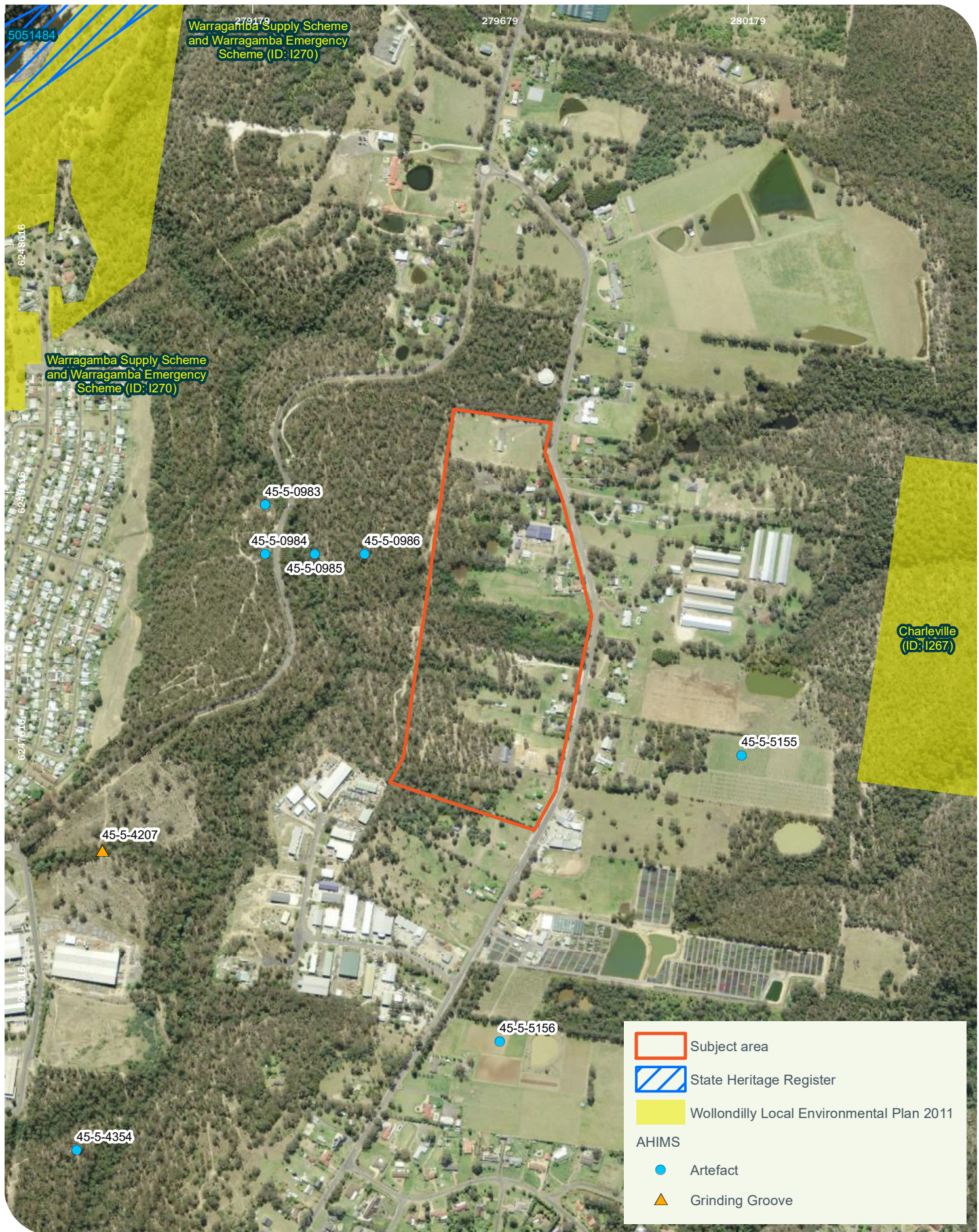
Other heritage registers

Searches of the Australian World Heritage Database, the Commonwealth Heritage List, National Heritage List, State Heritage Register, the Wollondilly Local Environmental Plan (LEP) (2014) and the Wollondilly Development Control Plan (DCP) (2016) were conducted on the 21 April 2022.

The searches concluded that there are no recorded Aboriginal heritage items within, or directly adjacent to, the Activity Area. Heritage items of national, state and local significance that were identified to be associated with the Activity Area and/or surrounding region are summarised in Table 3 below and illustrated in Figure 5.

Table 3: Listed heritage items in proximity to the Activity Area

Heritage Register	Items in the Activity Area	Items within 1km to the Activity Area
Australian World Heritage Database	NA	NA
Commonwealth Heritage List	NA	NA
National Heritage Register	NA	NA
State Heritage Register	NA	<ul style="list-style-type: none"> Warragamba Emergency Scheme (01376)
Schedule 5 of Wollondilly LEP (2014)	NA	<ul style="list-style-type: none"> Chareville (ID:11267) Warragamba Supply Scheme and Warragamba Emergency Scheme (ID: 1270)
Wollondilly Development Control Plan (2016)	NA	<ul style="list-style-type: none"> Warragamba Conservation Area (C4)



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Step 2b - Are there any other sources of information of which a person is already aware?

Yes.

Previous heritage assessments within or relevant to the Activity Area

Most assessments previously conducted within the local area have been undertaken in relation to the construction and maintenance of Warragamba Dam in the vicinity to the Silverdale area. Previous heritage assessments undertaken in the surrounding areas of the Activity Area and within, can indicate the archaeological potential or significance within the area.

Table 4 below provides a summary of heritage assessments that have occurred within proximity to the Activity Area.

Table 4: Heritage assessments in proximity to the Activity Area

Author	Title	Description/Outcomes
Helen Brayshaw Heritage Consultants, 1999	Warragamba Dam Spillway – Archaeological Survey for Aboriginal Sites	<p>Helen Brayshaw Heritage Consultants were commissioned to complete an archaeological survey for Aboriginal sites for a spoil emplacement associated with the spillway construction at Warragamba Dam; located approximately 1 km from the current Activity Area.</p> <p>A field survey was conducted that did not identify any archaeological sites within the study area and therefore there were no heritage constraints on the development. No further archaeological investigation was recommended.</p>
Archaeological & Heritage Management Solutions (AHMS) Pty Ltd, 2005	Warragamba STP Effluence Discharge Pipeline, Warragamba, NSW – Aboriginal heritage Impact Assessment	<p>AHMS were commissioned by Priority Sewerage Program Alliance Team at Sydney Water to complete an Aboriginal Archaeological assessment for the effluent pipeline route at Warragamba, NSW; located approximately 1.3kms from the current Activity Area</p> <p>The archaeological survey of the pipeline route was carried out with representative of the Tharawal Local Aboriginal Land Council and the Gundungurra Tribal Council. The survey covered the whole study area and was conducted to identify any Aboriginal archaeological sites or Objects. The survey identified 1 isolated artefact and 3 open artefact scatters in Warragamba Park. Areas of high to moderate potential for Aboriginal sites were identified. Management strategies were recommended to conserve Aboriginal sites and Potential Archaeological Deposits. It was recommended the approved pipeline be reconsidered, a redesign of the route of the pipeline to avoid impact to Aboriginal sites and PAD and further archaeological investigation be undertaken.</p>
Helen Brayshaw, 1993	Notes of Warragamba Dam EIS – Spillway – Archaeological survey for Aboriginal Sites	<p>Archaeological surveys were carried out in 1992 and 1993 as part of the Warragamba EIS in consultation with the Tharawal Local Aboriginal Land Council. The assessment is located approximately 1km from the current Activity Area</p> <p>The survey focused on plateau and gullies on the left bank of Warragamba Dam as the areas were less disturbed. The survey did not identify evidence of Aboriginal occupation.</p>

Author	Title	Description/Outcomes
		The east side of the dam was identified to be extensively modified during dam construction. The western side, though less disturbed, showed evidence of bulldozing, surveyors cairns and vehicle tracks. The survey identified that on the basis of environmental and topographical features, it was unlikely that any significant sites were within the study area.

Previous Heritage Assessment Summary

Previous heritage assessments in and around the Silverdale area have focused on the construction of the Warragamba Dam and associated infrastructure. Previous heritage assessments by Brayshaw (1993 & 1999) focused on the construction of the Warragamba Dam Spillway. Site inspections were undertaken as part of both assessments, neither identifying any Aboriginal cultural heritage sites within the surveyed area. However, AHMS (2005) heritage assessment of the Warragamba Dam pipeline identified 4 previously unrecorded Aboriginal cultural heritage sites, identifying the area of survey to have moderate – high archaeological potential.

Step 2c - Are there landscape features that are likely to indicate the presence of Aboriginal Objects?

Yes.

The following landscape features listed in the Due Diligence Code signify high potential for the presence of Aboriginal Objects:

- Within 200 m of waters, or
- Located within a sand dune system, or
- Located on a ridge top, ridge line or headland, or
- Located within 200 m below or above a cliff face, or
- Within 20 m of or in a cave, rock shelter, or cave mouth and is on land that is not disturbed land.

In accordance with the Due Diligence Code of Practice, the Activity Area is located within 200 m of water, this therefore signifies a higher potential for Aboriginal Objects to occur.

Three first order and one second order non perennial streams are located within the Activity Area, running through Lot 6/DP38325, Lot 1/DP124011, Lot 8/DP1208208, Lot 9/DP38325 and Lot 12/DP38325 (Figure 3 on Page 8). The streams are tributaries of Megarritys Creek, a second order non perennial water course which feeds the Warragamba River. In accordance with the Due Diligence Code of Practice, there is a higher probability of Aboriginal Objects occurring within land that is within 200 m of water.

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

Under the legislation, land is considered disturbed “if it has been the subject of human activity that has changed the land’s surface, being changed that remain clear and visible” (DECCW 2010c: 7). Examples of activities that may disturb land include soil ploughing, vegetation clearing and the construction of buildings, structures, roads, tracks, and trails. The Activity Area has been found to be disturbed by prior activities such as vegetation clearing, earthworks, agricultural use, residential structures and the construction of roads and tracks. Accordingly, past disturbances, means that the likelihood of finding significant in situ surface and subsurface cultural deposits is reduced.

Step 3 – Can the harm or the activity be avoided?

No.

The rezoning activity cannot be avoided. While no AHIMS are recorded within the Activity Area, the desktop assessment indicates that the Activity Area contains landscape features that are likely to indicate the presence of Aboriginal Objects. To avoid harm, further investigation is required.

Step 4 - Does a desktop assessment and visual inspection confirm that there are Aboriginal Objects or that they are likely?

A site inspection was conducted by Chelsea Freeman (Heritage Consultant, Niche) and Sam Ward (Heritage Consultant, Niche) on 17 May and 18 May 2022. A total of 4 properties were inspected as part of the site inspections and an additional property was viewed from Silverdale Road (Figure 6). No Aboriginal cultural heritage sites were identified during the site inspections.

2319 Silverdale Rd

A desktop assessment has been undertaken of property 2319 Silverdale Rd, Silverdale, as access was not provided at the time of the site inspection. Property 2319 Silverdale Rd is located within 200 m of a water course and within the Blacktown, GyMEA and Hawkesbury Soil landscapes. Historical aerial imagery from 1955 (Figure 4c) shows the clearance of vegetation for agricultural use of the eastern half of the property. Clearance of vegetation the eastern half of the property for agricultural and residential use is evident in historical imagery from 1986 and 2002 (Figure 4a - Figure 4b). Historical imagery does not indicate disturbance for the western half of the property, therefore Aboriginal Objects are more likely to remain in-situ.

2325 Silverdale Rd

A site inspection of 2325 Silverdale Rd, Silverdale, was not conducted as access was not provided. However, permission to view the property from Silverdale Rd was granted by the property owner. Property 2325 form a street view was cleared of vegetation and landscaped for the construction of a residential infrastructure. A desktop review indicates the property is located within 200 m of a water course and within the Blacktown, GyMEA and Hawkesbury Soil landscapes. Historical imagery from 1955 (Figure 4c) shows the front of the property to be cleared of vegetation for agricultural use and the construction of infrastructure and a dam. Historical imagery from 1986 and 2002 (Figure 4a - Figure 4b) show the removal of the dam and infrastructure and the regrowth of vegetation in the front section of the property. The historical imagery indicated minimal disturbance to the rear of the property increasing the likelihood of Aboriginal Objects to remain in-situ on the property.

2335 Silverdale Rd

A desktop assessment has been undertaken of property 2335 Silverdale Rd, Silverdale, as access was not provided at the time of the site inspection. Property 2335 Silverdale Rd is located within 200 m of a water

course and within the GyMEA and Hawkesbury Soil landscapes. Historical aerial imagery from 1955 (Figure 4c) shows the clearance of vegetation for agricultural use across the majority property. Historical imagery from 1986 and 2002 (Figure 4a - Figure 4b) show the maintained vegetation clearance across the property and the construction of residential infrastructure. The constant use and maintenance of the property indicates the property has been disturbed, reducing the likelihood of Aboriginal Objects to remain in situ on the property.

2339 Silverdale Rd

A desktop assessment has been undertaken of property 2339 Silverdale Rd, Silverdale, as access was not provided at the time of the site inspection. Property 2339 Silverdale Rd is located within 200 m of a water course and within the Blacktown, GyMEA and Hawkesbury Soil landscapes. Historical aerial imagery from 1955 (Figure 4c) shows minimal clearance of vegetation at the property, however, clearance has occurred for the construction of a dam. Historical imagery from 1986 and 2002 (Figure 4a - Figure 4b) shows further clearance of vegetation and the construction of residential and agricultural infrastructure. The constant use and development of the property indicate the property has been disturbed, reducing the likelihood of Aboriginal Objects to remain in situ on the property.

2345 Silverdale Rd

A desktop assessment has been undertaken of property 2345 Silverdale Rd, Silverdale, as access was not provided at the time of the site inspection. Property 2345 Silverdale Rd is located within 200 m of a water course and within the Blacktown, GyMEA and Hawkesbury Soil landscapes. Historical aerial imagery from 1955 (Figure 4c) shows minimal clearance of vegetation at the property, however, clearance has occurred for the construction of two dams. Historical imagery from 1986 and 2002 (Figure 4a - Figure 4b) shows further clearance of vegetation and the construction of residential and agricultural infrastructure. The constant use and maintenance of the property indicates the property has been disturbed, reducing the likelihood of Aboriginal Objects to remain in situ on the property. However, the western boundary of the property does not show evidence of vegetation clearance in the historical imagery, therefore Aboriginal Objects are more likely to remain in-situ.

2355 Silverdale Rd

A desktop assessment has been undertaken of property 2355 Silverdale Rd, Silverdale, as access was not provided at the time of the site inspection. Property 2355 Silverdale Rd is located within 200 m of a water course and within the Blacktown, GyMEA and Hawkesbury Soil landscapes. Historical aerial imagery from 1955 (Figure 4c) shows minimal clearance of vegetation at the property, however, clearance has occurred for the construction of a dam. Historical imagery from 1986 (Figure 4b) shows a drastic clearance of vegetation to approximately 70% of the property and a reduction in the size of the Dam. Historical imagery from 2002 (Figure 4a) shows partial regrowth of the western portion of the property and the maintained clearance of the eastern portion of the property. The constant use and development of the property indicate the property has been disturbed, reducing the likelihood of Aboriginal Objects to remain in situ on the property.

2365 Silverdale Rd

A site inspection of 2365 Silverdale Rd, Silverdale, was conducted on 18 May 2022. The property consisted of a residential property with a large, grassed paddock behind the single standing residential structure (Plate 2). The rear paddock was cleared of approximately 80% of vegetation and had poor Ground Surface Visibility (GSV) due to the dense grass (Plate 4 - Plate 5). The western most boundary of the property has

poor GSV due to overgrown uncleared vegetation surrounding a waterlogged swamp area (Plate 3). No Aboriginal Objects were identified through the visual inspection.

2375 Silverdale Rd

A desktop assessment has been undertaken of property 2375 Silverdale Rd, Silverdale, as access was not provided at the time of the site inspection. Property 2375 Silverdale Rd is located within 200 m of a water course and within the Blacktown, GyMEA and Hawkesbury Soil landscapes. Historical aerial imagery from 1955 (Figure 4c) shows the clearance of vegetation for agricultural use across the majority property and the construction of a dam and residential infrastructure. Historical imagery from 1986 and 2002 (Figure 4a - Figure 4b) show further clearance of vegetation and the construction of agricultural infrastructure. The constant use and development of the property indicate the property has been disturbed, reducing the likelihood of Aboriginal Objects to remain in situ on the property.

2385 Silverdale Rd

A site inspection of 2385 Silverdale Rd, Silverdale, was conducted on 18 May 2022. The property consisted of a small residential property with a landscaped and manicure front lawn with high GSV (Plate 6 - Plate 7). The rear of the property consisted of small agricultural area, with moderate GSV and a dam and agricultural infrastructure (Plate 8 - Plate 9). The property has been highly disturbed through residential and agricultural use. During the site inspection the property owner note that property has previously been subjected to high intensity bush fires and rebuilding of infrastructure was required. The high level of disturbance to the property reduces the likelihood of Aboriginal Objects to remain in-situ on the property.

2387 Silverdale Rd

A site inspection of 2387 Silverdale Rd, Silverdale, was conducted on 17 May 2022. The property has been completely cleared for residential use of the property, with a few free-standing trees remaining on the property. The property has high GSV, approximately 90%, due to the extensive vegetation clearance in the property (Plate 10 - Plate 13). Extensive landscaping has occurred to level to property, allowing for the construction of residential infrastructure. Large heavy-duty fences and gates have been constructed around the property as part of the property owner's commercial business. No Aboriginal Objects were identified during the site inspection.

2395 Silverdale Rd

A site inspection of 2395 Silverdale Rd, Silverdale, was conducted on 18 May 2022. The property has been disturbed through residential use. The property consists of a small freestanding residential building with driveway, rear shed and associated infrastructure. The rear of the property has been cleared of vegetation, with high GSV, and small areas of exposure along the rear fence line (Plate 14 - Plate 19.) No Aboriginal Objects were identified during the site inspection.

Visual Inspection Summary

No Aboriginal cultural heritage sites were identified in the Activity Area through site inspection and desktop review. Throughout the Activity Area, significant disturbance is evident as a result of extensive vegetation clearing, landscaping and the construction of infrastructure associated with residential and agricultural use. However, desktop review of properties 2319 Silverdale Rd, 2325 Silverdale Rd and 2345 Silverdale Rd indicate minimal historical disturbance, therefore having a greater likelihood of in-situ Aboriginal Objects.



Plate 2. Cleared vegetation at property 2365 Silverdale Rd.



Plate 3. Waterlogged swamp area at rear of property 2365 Silverdale Rd.



Plate 4. Cleared vegetation at property 2365 Silverdale Rd.



Plate 5. Cleared vegetation at property 2365 Silverdale Rd.



Plate 6. Landscaped manicured front lawn of property 2385 Silverdale Rd.



Plate 7. Landscaped manicured front lawn of property 2385 Silverdale Rd.



Plate 8. Agricultural infrastructure at the rear of property 2385 Silverdale Rd.



Plate 9. Dam at rear of property 2385 Silverdale Rd.



Plate 10. Cleared vegetation and residential and commercial infrastructure at property 2387 Silverdale Rd.



Plate 11. Rear of property 2387 Silverdale Rd backing onto Sydney Water Warragamba Dam property.



Plate 12. Cleared vegetation and residential and commercial infrastructure at property 2387 Silverdale Rd.



Plate 13. Cleared vegetation and residential and commercial infrastructure at property 2387 Silverdale Rd.



Plate 14. Residential infrastructure and driveway of property 2395 Silverdale Rd.



Plate 15. Rear of property 2395 Silverdale Rd, cleared of vegetation.



Plate 16. Vegetation along boundary of 2395 Silverdale Rd..



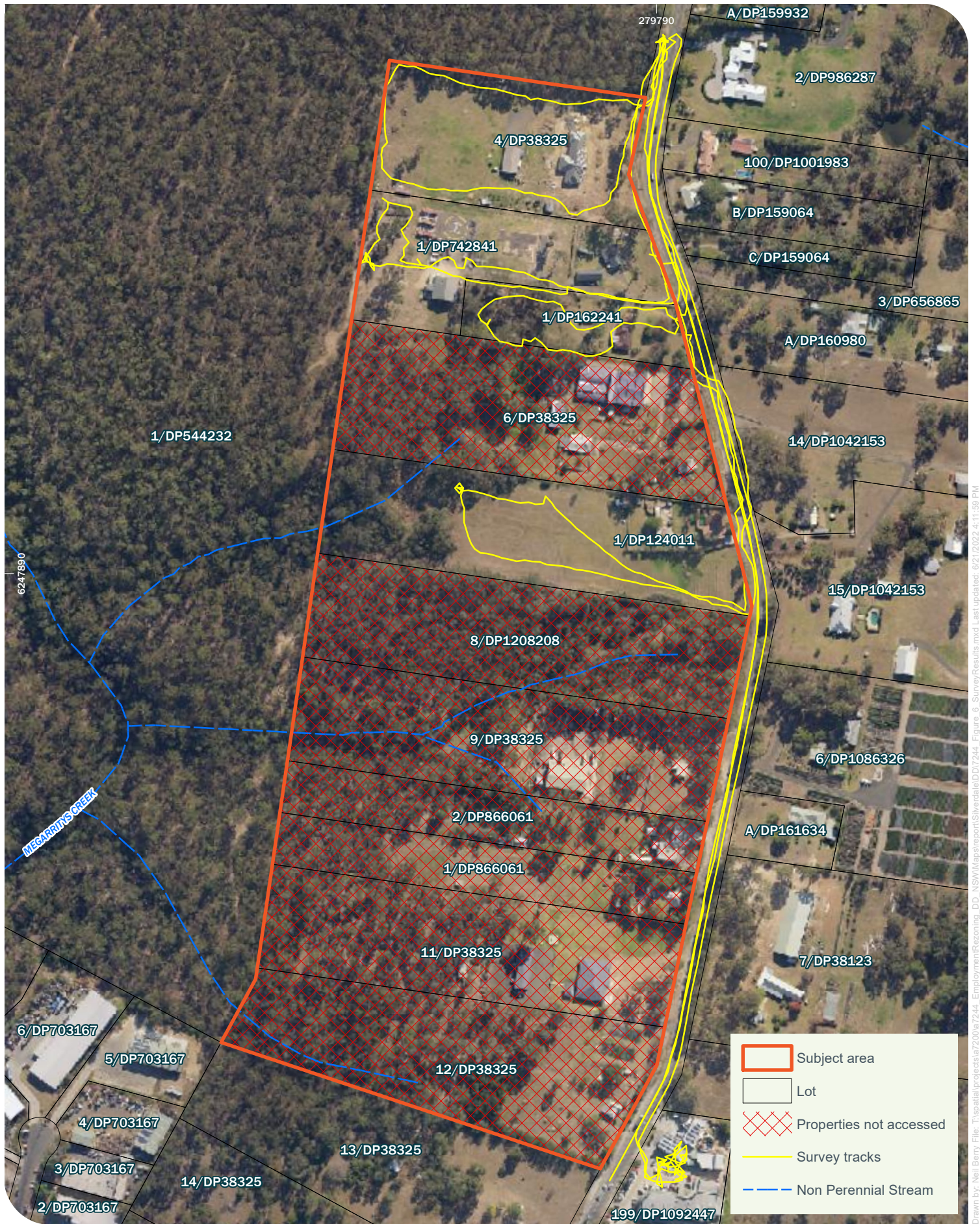
Plate 17. Property 2387 Silverdale Rd as viewed from 2395 Silverdale Rd.



Plate 18. Property 2395 Silverdale Rd cleared of vegetation.



Plate 19. Exposure near rear boundary fence line at property 2395 Silverdale Rd.



Drawn by: Neil Berry File: T:\spatial\projects\ar200\ar7244_EmploymentRezoning_DD_NSW\MapreportSilverdale\DD17244_Figure_6_SurveyResults.mxd Last updated: 6/21/2022 4:11:56 PM

Step 5 – Are further investigations and impact assessments needed?

Yes.

Based on the site inspection and desktop assessment of properties that were unable to be accessed, it is concluded that Aboriginal Objects are likely to occur in areas of the Activity Area. The Due Diligence code states that where a DD has occurred and concluded that Aboriginal Objects are likely to occur, further detailed investigation and impact assessment is required.

4. Conclusions and Recommendations

Wollondilly Shire Council has commissioned Niche to undertake the Due Diligence to assess:

- whether Aboriginal Objects and/or Places are present or are likely to occur within or in close proximity to the Activity Area,
- where those places are, and
- whether those Aboriginal Objects and/or places may be impacted by the rezoning and future development of the Activity Area.

The desktop assessment and the results of the site inspection identified high levels of disturbance and modification to the ground surface within most of the Activity Area. Previous clearance of vegetation and the use of land for residential and agricultural practices has lowered the potential for in situ archaeological remains in most of the Activity Area. However, areas within the Activity Area that have not been subjected to historical vegetation clearance have a higher potential for in situ archaeological remains in the Activity Area. These areas will require further investigation to determine their sub-surface archaeological potential.

The site inspection of four properties and the visual inspection of one property did not identify any Aboriginal Objects within the Activity Area.

The Due Diligence Code states that where a DD has occurred and concluded that Aboriginal Objects are likely to occur, further detailed investigation and impact assessment is required. If, following this detailed investigation and impact assessment, it is determined that harm will occur to Aboriginal Objects, then an AHIP application is required.

It is recommended that:

- An Aboriginal Cultural Heritage Assessment (ACHA) be prepared by a suitably qualified archaeologist in accordance with the Guide to Investigating, assessing reporting on Aboriginal cultural heritage in NSW (NSW Office of Environment and Heritage [OEH], 2011) and the Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (DECCW, 2010c). The ACHA would be required to support an application for an AHIP under s.90 of the National Parks and Wildlife Act 1974 should Aboriginal Objects and/or sites be identified.
- The proposed ACHA should document Aboriginal community consultation carried out in accordance with the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010b).

5. References

Archaeological & Heritage Management Solutions (AHMS) Pty Ltd, 2005. Warragamba STP Effluence Discharge Pipeline, Warragamba, NSW – Aboriginal heritage Impact Assessment. Report prepared on behalf of Priority Sewerage Program Sydney Water.

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

Department of Environment, Climate Change and Water NSW [DECCW] 2010b. Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales. Department of Environment, Climate Change and Water NSW.

Department of Planning 2022a Soil Landscape Report for Blacktown - eSPADE version 2.1 NSW Department of Planning, Industry and Environment, Sydney. Accessed May 2022

<https://www.environment.nsw.gov.au/eSpade2WebApp>

Department of Planning 2022b Soil Landscape Report for Gympie - eSPADE version 2.1 NSW Department of Planning, Industry and Environment, Sydney. Accessed May 2022

<https://www.environment.nsw.gov.au/eSpade2WebApp>

Department of Planning 2022c Soil Landscape Report for Hawkesbury - eSPADE version 2.1 NSW Department of Planning, Industry and Environment, Sydney. Accessed May 2022

<https://www.environment.nsw.gov.au/eSpade2WebApp>

Helen Brayshaw, 1993. Notes of Warragamba Dam EIS – Spillway – Archaeological survey for Aboriginal Sites. Report prepared for Water Board through Mitchell McCotter & Associates Pt Ltd

Helen Brayshaw Heritage Consultants, 1999. Warragamba Dam Spillway – Archaeological Survey for Aboriginal Sites. Report prepared for Abigroup Constructions Pty Ltd.

Appendix 1 – AHIMS extensive search



AHIMS Web Services (AWS) Extensive search - Site list report

Your Ref/PO Number : 7244 Silverdale

Client Service ID : 676125

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status **	SiteFeatures	SiteTypes	Reports
45-5-0638	Folley Creek	AGD	56	277900	6247500	Closed site	Valid	Art (Pigment or Engraved) : -	Shelter with Art	
	<u>Contact</u>	<u>Recorders</u>	T Young							
45-5-0983	GPAD 1;	AGD	56	279100	6247900	Closed site	Valid	Artefact : -	Shelter with Deposit	
	<u>Contact</u>	<u>Recorders</u>	Iain Stuart							
45-5-5156	SD-IF-02	GDA	56	279678	6247006	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Kayandel Archaeological Services, Miss Meg Walker							
45-5-0984	PAD 2;	AGD	56	279100	6247800	Closed site	Valid	Artefact : -	Shelter with Deposit	
	<u>Contact</u>	<u>Recorders</u>	Iain Stuart							
45-5-4735	MC-OS-02	GDA	56	278147	6246490	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Kayandel Archaeological Services							
45-5-3166	SAF-1	AGD	56	278297	6246344	Open site	Valid	Artefact : 5		
	<u>Contact</u>	<u>Recorders</u>	Stedinger Associates							
45-5-0985	PAD 3;	AGD	56	279200	6247800	Closed site	Valid	Artefact : -	Shelter with Deposit	
	<u>Contact</u>	<u>Recorders</u>	Iain Stuart							
45-5-3098	Greendale Road 1	AGD	56	281900	6248820	Open site	Valid	Modified Tree (Carved or Scarred) : 1		
	<u>Contact</u>	<u>Recorders</u>	Emma Lees							
45-5-4207	Production Ave Grinding Grooves 1	GDA	56	278876	6247392	Open site	Valid	Grinding Groove : 1		
	<u>Contact</u>	<u>Recorders</u>	Mary Dallas Consulting Archaeologists (MDCA)							
45-5-0986	PAD 4;	AGD	56	279300	6247800	Closed site	Valid	Artefact : -	Shelter with Deposit	
	<u>Contact</u>	<u>Recorders</u>	Iain Stuart							
45-5-5155	SD-IF-01	GDA	56	280166	6247584	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Kayandel Archaeological Services, Miss Meg Walker							
45-5-4736	MC-OS-03	GDA	56	278488	6246516	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Kayandel Archaeological Services							
45-5-4354	MC-OS-01	GDA	56	278824	6246786	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Kayandel Archaeological Services							

** 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


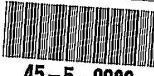
Report generated by AHIMS Web Service on 19/04/2022 for Chelsea Freeman for the following area at Lat, Long From : -33.9001, 150.5858 - Lat, Long To : -33.8759, 150.6476. Number of Aboriginal sites and Aboriginal objects found is 13

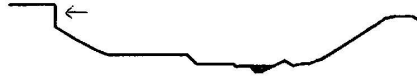
This information is not guaranteed to be free from error omission. Heritage NSW and its employees disclaim liability for any act done or omission made on the information and consequences of such acts or omission.

Page 1 of 1

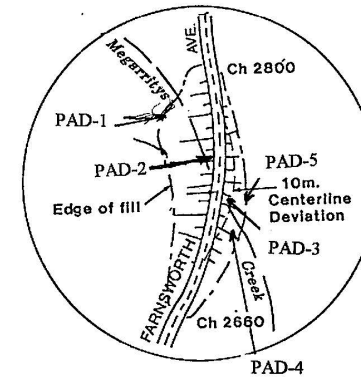
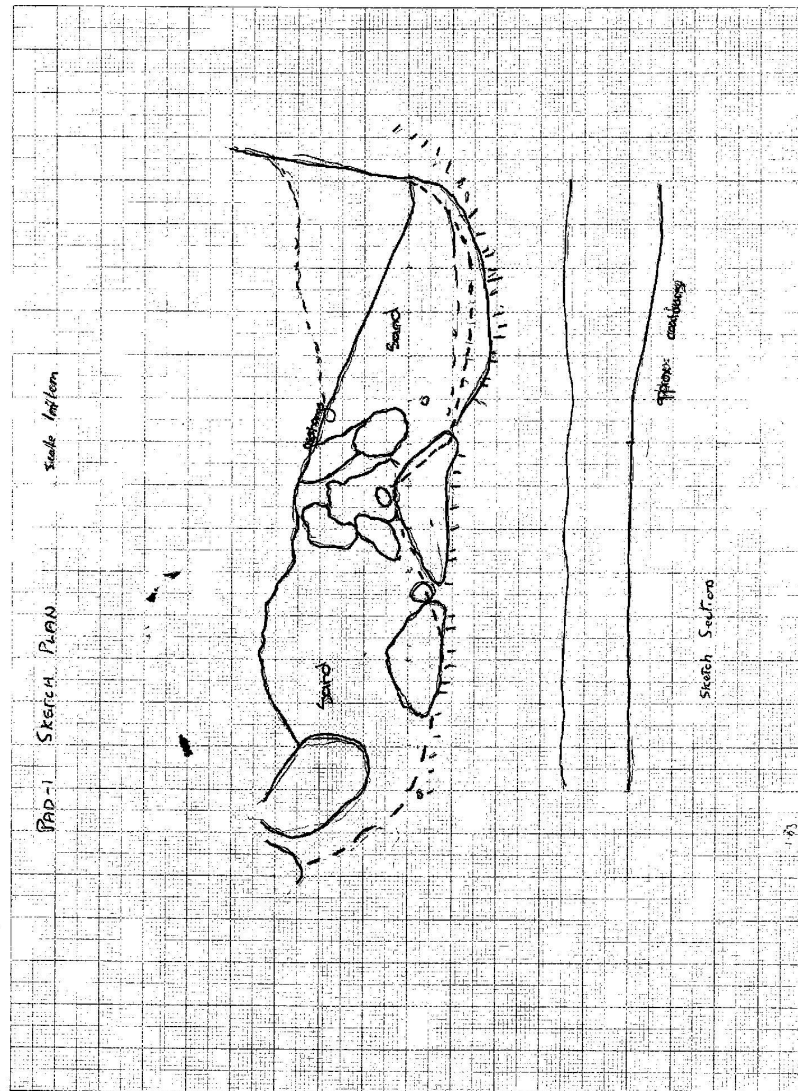
Appendix 2 – Site Cards

[] New recording [] Additional Info

 National Parks and Wildlife Service Box 1987, Hurstville NSW 2220. Tel: (02) 585 6444 Standard Site Recording Form Revised 12/92 Revised 12/92		 45-5-0983
1:250,000 map sheet: SYDNEY NPWS Code: 4.51		HEAD OFFICE USE ONLY: NPWS Site no: 44-5-983 Site types: SHELTER & Deposit
AMG Grid reference: 250K 27910 mE 250K 624790 mN Full reference - please include leading digits Scale of map used for grid reference: [x] 25K, 50K (preferred) [] 100K [] 250K Please use largest scale available 1:25K, 50K, 100K map name: WARRAGAMBA		Accessioned by: [Signature] Date: 3 MAR 95 Data entered by: [Signature] Date: 3 MAR 95 Owner/Manager: CROWN LAND Address:
Site name: PAD-1 Locality/property name: MEGARITYS CREEK NPWS District: Region:		
Reason for investigation: Archaeological Survey of Proposed Road Widening		
Portion no: 310 Parish: WARRAGAMBA COUNTY OF CAMDEN		Photos taken? YES How many attached? NONE
How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff) (Draw diagram on separate sheet.) Follow track on west side of Farnworth Ave. Site is an easy scramble down a gully (see plan)		
Other sites in locality? YES Site Types include: OPEN SITES Are sites in NPWS Register? YES PAD		
Have artefacts been removed from site? NO When? Deposited where?		
Is site important to local Aborigines? YES Give contact(s) name(s) + address(es) GLENDAL CHALKER, THARAWAL LALC P.O. BOX 20 BURYTON NSW		
Contacted for this recording? YES (Attach additional information separately) If not, why not?		
Verbal/written reference sources (including full title of accompanying report) C-3070 NPWS Report Catalogue # An Archaeological Survey of Warragamba Dam, Proposed Hawke Road		
Checklist: surface visibility, damage/disturbance/ threat to site	Condition of site: Unknown	
Recommendations for management & protection (attach separate sheet if necessary): TEST PIT To DETERMINE IF IT IS A "REAL" SITE NOT A PAD		
Site recorded by: IAN STUART Date: 26 SEPTEMBER 1994 Address/institution: HLA - ENVIRONMENTAL SCIENCES		

SITE POSITION & ENVIRONMENT		OFFICE USE ONLY: NPWS site no:
1. Land form a. beach/hill slope/ridge top, etc: Under overhang d. mark on diagram provided or on your own sketch the position of the site:		b. site aspect: SE c. slope: e. Describe briefly: Overhang of Hawkesberry Sandstone
		
1. Local rock type: Hawkesberry Sandstone g. Land use/effect: Crown Land		
2. Distance from drinking water: 10 m Source: Megaritis Creek		
3. Resource Zone associated with site (estuarine, riverine, forest etc): open forest, closed forest in gully		
4. Vegetation: Open forest		
5. Edible plants noted:		
6. Faunal resources (include shellfish):		
7. Other exploitable resources (river pebbles, ochre, etc):		
Site type: PAD	DESCRIPTION OF SITE & CONTENTS. Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents. This site is a potential archaeological deposit being a shelter with some ochre bediment deposited in it	
CHECKLIST TO HELP: length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock. DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types. ART: area of surface decorated, motifs, colours, wet, dry pigment, technique of engraving, no. of figures, sizes, patination. BURIALS: number & condition of bone, position, age, sex, associated artefacts. TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth. QUARRIES: rock type, debris, recognisable artefacts, percentage quarried. OTHER SITES EG. structures (fish traps, stone arrangements, bora rings, mia mias), mythological sites, rock holes, engraved groove channels, contact sites (missions messacres cemeteries) as appropriate		
Attach sketches etc, eg. plan & section of shelter, show relation between site contents, indicate north, show scale. Attach annotated photos (stereo where useful) showing scale, particularly for art sites.		

1mm Squares



ENVIROSCIENCES PTY LIMITED

Detail of Megarritys Creek
showing locations of PADs

Figure 7

Date: January 1995

Project No.: U-71

[] New recording [] Additional Info



National Parks and Wildlife Service

Box 1967, Hurstville NSW 2220. Tel: (02) 585 6444
Standard Site Recording Form ~~March 2000~~ Revised 12/92



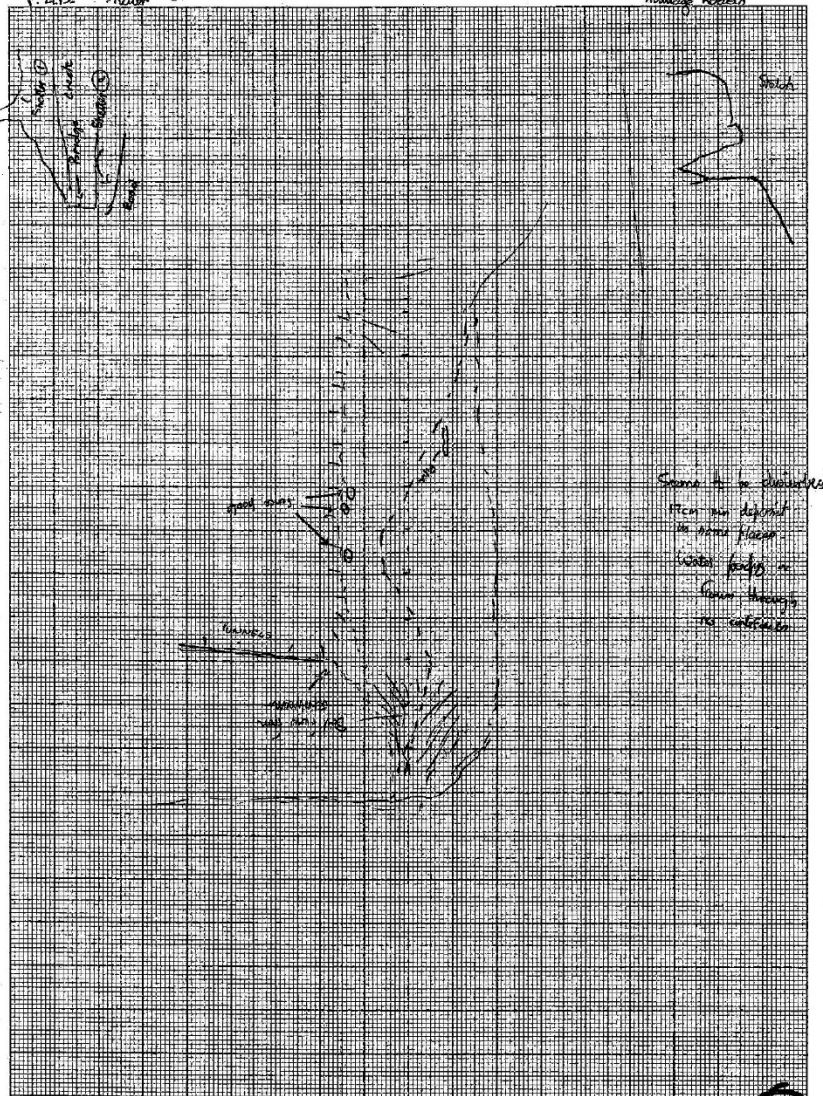
1:250,000 map sheet: <u>SYDNEY</u>		NPWS Code <u>4.5</u>
AMG Grid reference Full reference - please include leading digits <u>27910</u> mE <u>624780</u> mN		HEAD OFFICE USE ONLY: NPWS Site no: <u>45-5-984</u>
Scale of map used for grid reference Please use largest scale available [X] 25K, 50K (preferred) [] 100K [] 250K		Site types: <u>Shelter & Deposit</u>
1:25K, 50K, 100K map name: <u>WARRAGAMBA</u>		Accessioned by: <u>RL</u> Date: <u>5 MAR 95</u>
Site name: <u>PAD - 2</u> Locality/property name: <u>MEGARITYS CREEP</u>		Owner/Manager: <u>CROWN LAND</u>
NPWS District: Region:		Address:
Reason for investigation <u>Archaeological Survey for proposed road widening</u>		
Portion no: <u>310</u> Parish: <u>Perinth</u> County of <u>Camden</u>		Photos taken? <u>YES</u> How many attached? <u>NONE</u>
How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff. (Draw diagram on separate sheet.) <u>either abseil off Farnsworth Ave or climb down to creek on the south side and climb up on north side</u>		
Other sites in locality? <u>YES</u> Site Types include: <u>PAD's</u> Are sites in NPWS Register? <u>YES</u> <u>Open Sites</u>		
Have artefacts been removed from site? <u>NO</u> When? <u>Deposited where?</u> By whom?		
Is site important to local Aborigines? <u>YES</u> Give contact(s) name(s) + address(es) <u>Glenda Chalker, Thuralwal LALC P.O. Box 20 Buxton</u>		
Contacted for this recording? <u>YES</u> (Attach additional information separately) If not, why not?		
Verbal/written reference sources (including full title of accompanying report) <u>An Archaeological Survey of Warragamba Dam Proposed Heritage Roads C-3070</u>		NPWS Report Catalogue #
Checklist: surface visibility, damage/disturbance/ threat to site	Condition of site: <u>Unknown</u>	
Recommendations for management & protection (attach separate sheet if necessary): <u>TEST PIT TO VERIFY WHETHER IT IS AN ARCHAEOLOGICAL SITE</u>		
Site recorded by: <u>IAN STUART</u> Date: <u>26 SEPTEMBER 1994</u>		
Address/institution: <u>HLA - ENVIROSCIENCES</u>		

SITE POSITION & ENVIRONMENT		OFFICE USE ONLY: NPWS site no:
1. Land form a. beach/hill slope/ridge top, etc: <u>SHELTER</u>		b. site aspect: <u>WEST</u> c. slope:
d. mark on diagram provided or on your own sketch the position of the site: <u>Farnsworth Ave</u> <u>Site</u>		e. Describe briefly: <u>PAD in shelter under steep cliff with an easy scramble down 10m to water</u>
2. Local rock type: <u>Hammerberry Sandstone</u>		g. Land use/effect: <u>CROWN LAND</u>
3. Distance from drinking water: <u>10m</u>		Source: <u>Megaritjo Creek</u>
4. Resource Zone associated with site (estuarine, riverine, forest etc): <u>forest</u>		
5. Vegetation: <u>Open forest</u>		
6. Edible plants noted:		
7. Faunal resources (include shellfish):		
8. Other exploitable resources (river pebbles, ochre, etc):		
Site type: <u>PAD</u>	DESCRIPTION OF SITE & CONTENTS. Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents. <u>Site is a PAD in a shelter adjacent to Megaritjo Creek and Farnsworth Ave</u>	
CHECKLIST TO HELP: length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock. DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types. ART: area of surface decorated, motifs, colours, wet, dry pigment, technique of engraving, no. of figures, sizes, patination. BURIALS: number & condition of bone, position, age, sex, associated artefacts. TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth. QUARRIES: rock type, debris, recognisable artefacts, percentage quarried. OTHER SITES EG. structures (fish traps, stone arrangements, bora rings, mia mias), mythological sites, rock holes, engraved groove channels, contact sites (missions mass graves cemeteries) as appropriate		
Attach sketches etc, eg. plan & section of shelter, show relation between site contents, indicate north, show scale. Attach annotated photos (stereo where useful) showing scale, particularly for art sites.		

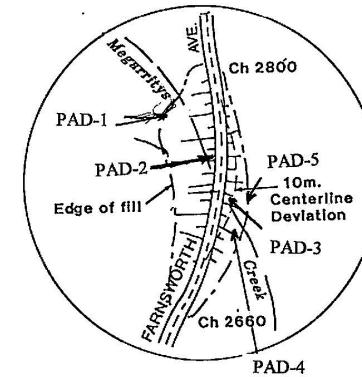
45-5-984 1mm Squares

PAD Station 2

Warragamba Dam
Hawkesbury River



45-5-984



ENVIROSCIENCES PTY LIMITED

Detail of Megarritys Creek
showing locations of PADs

Figure 7

Date: January 1995

Project No.: U-71

[] New recording [] Additional Info



National Parks and Wildlife Service

Box 1967, Hurstville NSW 2220. Tel: (02) 585 6444
Standard Site Recording Form ~~Revised 12/92~~ Revised 12/92

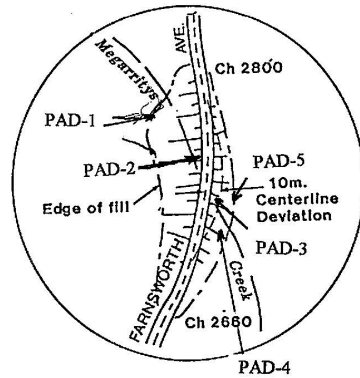



45-5-0985

1:250,000 map sheet: _____		NPWS Code
<p>AMG Grid reference</p> <p>Full reference - please include leading digits</p> <p>Scale of map used for grid reference</p> <p>Please use largest scale available</p> <p>1:25K, 50K, 100K map name: <u>WARWAGAMBA</u></p>		<p>HEAD OFFICE USE ONLY:</p> <p>NPWS Site no: <u>45-5-985</u></p> <p>Site types: <u>Shelter & Deposit</u></p> <p>Accessioned by: _____ Date: _____</p> <p>Data entered by: <u>JS</u> Date: <u>3 MAR 95</u></p> <p>Owner/Manager: <u>CROWN LAND</u></p> <p>Address: _____</p>
Site name: <u>PAD-3</u>	Locality/property name: <u>MEGARITYS CREEK</u>	
NPWS District: _____	Region: _____	
Reason for investigation		
<u>Archaeological Survey for proposed road widening</u>		
Portion no: <u>1 (?)</u>	Parish: <u>WARWAGAMBA, COUNTRY OF CAMPDEN</u>	
	Photos taken? <u>YES</u> <u>NO</u>	
	How many attached? _____	
How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff. (Draw diagram on separate sheet.)		
<u>Best approach is from the west side of Farnworth Ave, North of Creek and scramble down</u>		
Other sites in locality? <u>YES</u>	Site Types include: <u>OPEN SITES</u>	
Are sites in NPWS Register? <u>YES</u>	<u>PAD'S</u>	
Have artefacts been removed from site? <u>N/D</u>	When? _____	
By whom? _____	Deposited where? _____	
Is site important to local Aborigines? <u>YES</u>	Give contact(s) name(s) + address(es) <u>Glenda Chalker, Tharawal LALC P.O. Box 20 BUXTOW</u>	
Contacted for this recording? <u>YES</u>	(Attach additional information separately) If not, why not? _____	
Verbal/written reference sources (including full title of accompanying report)		
<u>An archaeological survey of proposed haulage roads, Warwagamba Wallacia, Luddenham</u>		
Checklist: surface visibility, damage/disturbance/threat to site	Condition of site: <u>Unknown</u>	
Recommendations for management & protection (attach separate sheet if necessary):		
<u>Test pit to establish nature of archaeological deposit</u>		
Site recorded by: <u>JAIN STUART</u>	Date: <u>26 September 1994</u>	
Address/institution: <u>HLA ENVIRONMENTAL SCIENCES</u>		

SITE POSITION & ENVIRONMENT		OFFICE USE ONLY: NPWS site no:
1. Land form a. beach/hill slope/ridge top, etc: <u>Shelter</u>		b. site aspect: <u>South</u> c. slope: _____
d. mark on diagram provided or on your own sketch the position of the site:		e. Describe briefly:
		<u>Overhang and platform running parallel to Megaritys Creek</u>
1. Local rock type: <u>Hawkesbury Sandstone</u>		g. Land use/effect: <u>Crown Land - dumping</u>
2. Distance from drinking water: <u>Megaritys Creek</u>		Source: <u>10 m</u>
3. Resource Zone associated with site (estuarine, riverine, forest etc):		<u>Open forest</u>
4. Vegetation: <u>Open forest</u>		
5. Edible plants noted:		
6. Faunal resources (include shellfish):		
7. Other exploitable resources (river pebbles, ochre, etc):		
Site type: <u>PAD</u>	DESCRIPTION OF SITE & CONTENTS.	
	Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents.	
	<p>This site is a series of deposits in a shelter running roughly parallel to Megaritys creek. The shelter is mainly sandstone but there are nodular deposits which may contain archaeological relics.</p> <p>Deposits</p> <p>Creek</p>	
<p>CHECKLIST TO HELP:</p> <p>length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock.</p> <p>DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types.</p> <p>ART: area of surface decorated, motifs, colours, wet, dry pigment, technique of engraving, no. of figures, sizes, patination.</p> <p>BURIALS: number & condition of bone, position, age, sex, associated artefacts.</p> <p>TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth.</p> <p>QUARRIES: rock type, debris, recognisable artefacts, percentage quarried.</p> <p>OTHER SITES EG. structures (fish traps, stone arrangements, bone rings, mia mias), mythological sites, rock holes, engraved groove channels, contact sites (missions massacres cemeteries) as appropriate.</p>		
Attach sketches etc, eg. plan & section of shelter, show relation between site contents, indicate north, show scale. Attach annotated photos (stereo where useful) showing scale, particularly for art sites.		

45-5-985



 ENVIROSCIENCES PTY LIMITED	
Detail of Megarritys Creek showing locations of PADs	Figure 7
Date: January 1995	Project No.: U-71

[] New recording [] Additional Info



National Parks and Wildlife Service

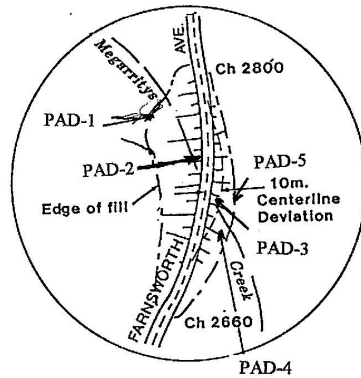
Box 1967, Hurstville NSW 2220. Tel: (02) 585 6444
Standard Site Recording Form ~~Revised 12/92~~ Revised 12/92

45-5-0986

1:250,000 map sheet: _____		NPWS Code: _____	
AMG Grid reference: <u>27930</u> mE <u>624780</u> mN		HEAD OFFICE USE ONLY: NPWS Site no: <u>45-5-986</u>	
Scale of map used for grid reference: <input checked="" type="checkbox"/> 25K, 50K (preferred) <input type="checkbox"/> 100K <input type="checkbox"/> 250K		Site types: <u>Shelter & Art</u>	
1:25K, 50K, 100K map name: <u>WARRAGAMBA</u>		Accessioned by: _____ Date: _____	
Site name: <u>PAD-4</u> Locality/property name: <u>MEGARITYS CREEK</u>		Data entered by: <u>ML</u> Date: <u>3 MAR 95</u>	
NPWS District: _____ Region: _____		Owner/Manager: <u>CROWN LAND</u>	
Reason for investigation: <u>Archaeological Survey for proposed road widening</u>			
Portion no: <u>1</u>		Photos taken? <u>No</u>	
Parish: <u>Warragamba County of Camden</u>		How many attached? <u>None</u>	
How to get to the site (refer to permanent features, give best approach to site eg. from above, below, along cliff. (Draw diagram on separate sheet.) <u>Best approach is from east side of Farnworth Ave, north of Megaritys Creek</u> <u>scramble down to the creek. Site is to south and slightly upstream</u>			
Other sites in locality? <u>YES</u>		Site Types include: <u>OPEN SITES</u>	
Are sites in NPWS Register? <u>YES</u>		<u>PADS</u>	
Have artefacts been removed from site? <u>NO</u>		When? <u>When?</u>	
By whom? <u>NO</u>		Deposited where? <u>NO</u>	
Is site important to local Aborigines? <u>YES</u>		Give contact(s) name(s) + address(es) <u>Glenda Chalker, Tharawal LALC P.O. Box 20 Buxton</u>	
Contacted for this recording? <u>YES</u>		(Attach additional information separately) If not, why not?	
Verbal/written reference sources (including full title of accompanying report)		NPWS Report Catalogue #	
<u>An archaeological Survey of Warragamba Dam proposed haulage roads</u>			
Checklist: surface visibility, damage/disturbance/ threat to site	Condition of site: <u>Unknown</u>		
Recommendations for management & protection (attach separate sheet if necessary): <u>Tent pit to establish nature of archaeological deposit</u>			
Site recorded by: <u>John Spry</u>		Date: <u>26/09/94</u>	
Address/institution: <u>HLA ENVIROSCIENCES</u>			

SITE POSITION & ENVIRONMENT		OFFICE USE ONLY: NPWS site no: _____
1. Land form a. beach/hill slope/ridge top, etc: <u>shelter</u>		b. site aspect: <u>north</u> c. slope: _____
d. mark on diagram provided or on your own sketch the position of the site:		e. Describe briefly: <u>Overhang under cliffy outcrop adjacent to creek</u>
1. Local rock type: <u>Hawkesbury Sandstone</u>	g. Land use/effect: _____	
2. Distance from drinking water: <u>10 m</u>	Source: <u>Megaritys Creek</u>	
3. Resource Zone associated with site (estuarine, riverine, forest etc): <u>Forest</u>		
4. Vegetation: <u>Open forest</u>		
5. Edible plants noted: _____		
6. Faunal resources (include shellfish): _____		
7. Other exploitable resources (river pebbles, ochre, etc): _____		
Site type: <u>PAD</u>	DESCRIPTION OF SITE & CONTENTS. Note state of preservation of site & contents. Do NOT dig, disturb, damage site or contents.	
CHECKLIST TO HELP: length, width, depth, height of site, shelter, deposit, structure, element eg. tree scar, grooves in rock. DEPOSIT: colour, texture, estimated depth, stratigraphy, contents-shell, bone, stone, charcoal, density & distribution of these, stone types, artefact types. ART: area of surface decorated, motifs, colours, wet, dry pigment, technique of engraving, no. of figures, sizes, patination. BURIALS: number & condition of bone, position, age, sex, associated artefacts. TREES: number, alive, dead, likely age, scar shape, position, size, patterns, axe marks, regrowth. QUARRIES: rock type, debris, recognisable artefacts, percentage quarried. OTHER SITES EG. structures (fish traps, stone arrangements, bora rings, mia mias), mythological sites, rock holes, engraved groove channels, contact sites (missions messacres cemeteries) as appropriate	The site is a long overhang on the south side of Megaritys Creek. Site is full of sediment mostly I suspect transported by flood waters. The creek is full of old car bodies. <u>Sketch section (not to scale)</u>	
Attach sketches etc, eg. plan & section of shelter, show relation between site contents, indicate north, show scale. Attach annotated photos (stereo where useful) showing scale, particularly for art sites.		

45-5-986




 ENVIROSCIENCES PTY LIMITED	
Detail of Megarritys Creek showing locations of PADs	
Date: January 1995	Project No.: U-71

Figure 7



Aboriginal Site Recording Form

AHIMS Registrar
PO Box 1967, Hurstville NSW 2220



Office Use Only

Site Number 4 5 1 5 4 2 0 7

Date received / / Date entered into system / / Date catalogued / /

Entered by (I.D.)

Information Access

☐ Gender/male ☐ Gender/female ☐ Location restriction ☐ General restriction ☐ No access

For Further Information Contact:

☐ Nominated Trustee

Title Surname First Name Initials
Organisation
Address
Phone number Fax

☐ Knowledge Holder

Title Surname First Name Initials
Organisation
Address
Phone number Fax

Aboriginal Heritage Unit or Cultural Heritage Division Contacts

Geographic Location

Site Name Production Ave Grinding Grooves 1

Easting 2 7 8 8 7 6 Northing 6 2 4 7 3 9 2 AGD/GDA GDA

Mapsheet Warragamba

Zone 56 Location Method Non-Differential GPS

Other Registration

Primary Recorder

Title Surname First Name Initials
Organisation M D C A
Address P O B o x A 2 8 1 A r n c l i f f e 2 2 0 5
Phone number 0 2 9 8 1 8 3 2 8 7 Fax 0 2 8 5 2 0 2 0 0 6
Date recorded 12/04/2012

Office Use Only

Client on system

Client on system

Client on system

NPWS Aboriginal Site Recording Form - Site Information

page 2

OPEN/CLOSE SITE Open Site

Site Context

Landform

☐ Mountainous
☐ Plain
☐ Rolling hills
☐ Steep hills
☐ Undulating plain

Landform Unit

☐ Beach
☐ Coastal rock platform
☐ Dune
☐ Intertidal flat
☐ Lagoon
☐ Tidal Creek

☐ Tidal Flat
☐ Cliff
☐ Crest
☐ Flat
☐ Lower slope
☐ Mid slope

☐ Upper slope
☐ Plain
☐ Ridge
☐ Tor
☐ Valley flat
☐ Levy

☐ Stream bank
☒ Stream channel
☐ Swamp
☐ Terrace
☐ Terrace flat

Slope

☐ degrees

Vegetation

☐ Closed forest
☐ Grasslands
☐ Isolated clumps of trees
☐ Open forest
☒ Open woodland
☐ Scrub
☐ Woodland
☐ Cleared
☐ Revegetated
☐ N/A

Land use

☐ Conservation
☐ Established urban
☐ Farming-intensive
☐ Farming-low intensity
☐ Forestry
☐ Industrial
☐ Mining
☐ Pastoral/grazing
☐ Recreation
☐ Semi-rural
☐ Service corridor
☐ Transport corridor
☒ Urban expansion
☐ N/A

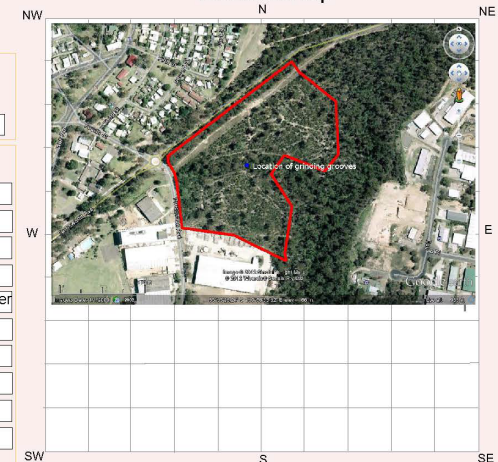
Water

Distance to permanent water source 1200 metres
Distance to temporary water source 0 metres
Name of nearest permanent water source Megarritys
Name of nearest temporary water Unnamed

Directions for Relocation

Access via informal vehicle tracks on the southern side of Farnsworth Ave. Follow vehicle track bisecting the centre of property heading S from transmission line access track until it meets creek bed. Site is located in creek bed approx 3m downstream (E) of track on sandstone platform. Grinding grooves are located adjacent to 2 small rock pools.

Site Location Map



Current Land Tenure

☐ Public National Park / other Government Dept.
☒ Private

Primary report I.D. (I.D. Office Use only)

MCCA 2012, RE: PRELIMINARY DUE DILIGENCE
ABORIGINAL HERITAGE ASSESSMENT FOR
LOT 42 DP 838567, LOT 2 DP 560174 AND LOT 100
DP 1071321, PRODUCTION AND FARNSWORTH
AVENUE WARRAGAMBA (Report to Proust & Gardner
Consulting Pty Ltd)



Aboriginal Site Recording Form

AHIMS Registrar
PO Box 1967, Hurstville NSW 2220



Office Use Only	
Site Number	4 5 5 4 3 5 4
Date received	/ /
Date entered into system	/ /
Date catalogued	/ /
Entered by (I.D.)	
Information Access	
<input type="checkbox"/> Gender/male <input type="checkbox"/> Gender/female <input type="checkbox"/> Location restriction <input type="checkbox"/> General restriction <input type="checkbox"/> No access	
For Further Information Contact:	
<input type="checkbox"/> Nominated Trustee	
Title	Surname First Name Initials
Organisation	
Address	
Phone number	Fax
<input type="checkbox"/> Knowledge Holder	
Title	Surname First Name Initials
Organisation	
Address	
Phone number	Fax
Aboriginal Heritage Unit or Cultural Heritage Division Contacts	
Geographic Location	
Site Name	M C - O S - 0 1
Easting	2 7 8 8 2 4 Northing 6 2 4 6 7 8 6 AGD/GDA GDA
Mapsheet	W a r r a g a m b a 9 0 3 0 - 3 S
Zone	56 Location Method Non-Differential GPS
Other Registration	
Primary Recorder	
Title	Surname First Name Initials
Organisation	K A Y A N D E L A R C H S E R V I C E S
Address	2 0 3 / 1 C E N T E N N I A L D R C A M P B E L L
Phone number	4 6 2 7 8 6 2 2 Fax 4 6 2 7 8 6 3 3
Date recorded	28/2/2013

NPWS Aboriginal Site Recording Form - Site Information

page 2

OPEN/CLOSE SITE **Open Site**

Site Context

Landform

- ☐ Mountainous
☐ Plain
☐ Rolling hills
☐ Steep hills
☒ Undulating plain

Slope

☐ degrees

Landform Unit

- ☐ Beach
☐ Coastal rock platform
☐ Dune
☐ Intertidal flat
☐ Lagoon
☐ Tidal Creek

- ☐ Tidal Flat
☐ Cliff
☐ Crest
☐ Flat
☐ Lower slope
☐ Mid slope
☐ Upper slope
☐ Plain
☐ Ridge
☐ Tor
☐ Valley flat
☐ Levy

- ☐ Stream bank
☐ Stream channel
☐ Swamp
☐ Terrace
☒ Terrace flat

Vegetation

- ☐ Closed forest
☐ Grasslands
☐ Isolated clumps of trees
☐ Open forest
☒ Open woodland
☐ Scrub
☐ Woodland
☐ Cleared
☐ Revegetated
☐ N/A

Land use

- ☐ Conservation
☐ Established urban
☐ Farming-intensive
☐ Farming-low intensity
☐ Forestry
☐ Industrial
☐ Mining
☐ Pastoral/grazing
☒ Recreation
☐ Semi-rural
☒ Service corridor
☐ Transport corridor
☐ Urban expansion
☐ Residential

Water

- Distance to permanent water source
Distance to temporary water source
Name of nearest permanent water source
Name of nearest temporary water

55 metres
82 metres

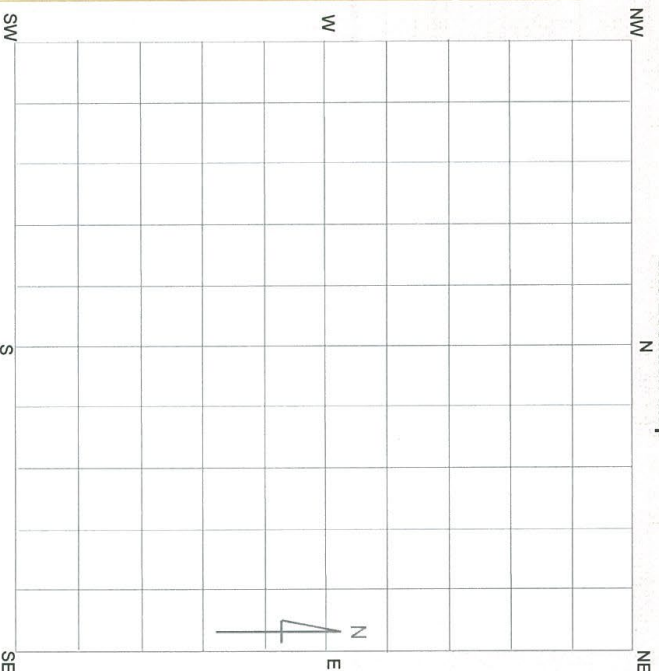
Megarritlys Creek

Unnamed tributary

Directions for Relocation

Turn right off Silverdale Rd, onto Warradale Rd, follow the road for 569m. On the right is a cadastral road between Lot 4 DP 261728 and Lot B DP 340914. Continue along the cadastral road for 293m, where a track will appear heading northeast into Lot 5 DP 261728. Follow this track for 131m, MC-OS-01 is located 27m south.

Site Location Map



Current Land Tenure

- ☐ Public
☒ Private
National Park / other Government Dept.
TJ & RF Fordham Pty Ltd

Primary report

I.D.

(I.D. Office Use only)

NPWS Aboriginal Site Recording Form - Site Information

page 3

General Site Information

Closed Site

- Shelter/Cave Formation ☐
- Boulder ☐
- Wind erosion ☐
- Water erosion ☐
- Rock collapse ☐

Rock Surface Condition

- Boulder ☐
- Sandstone platform ☐
- Silica gloss ☐
- Tessellated ☐
- Weathered ☐
- Other platform ☐

Open Site

Site Orientation

- N-S ☐
- NE-SW ☒
- E-W ☐
- SE-NW ☐
- N/A ☐

Features

- ☐ 1. Aboriginal Ceremony & Dreaming
- ☐ 2. Aboriginal Resource & Gathering
- ☐ 3. Art
- ☒ 4. Artefact
- ☐ 5. Burial
- ☐ 6. Ceremonial Ring
- ☐ 7. Conflict
- ☐ 8. Earth Mound
- ☐ 9. Fish Trap
- ☐ 10. Grinding Groove
- ☐ 11. Habitation Structure
- ☐ 12. Hearth
- ☐ 13. Non Human Bone & Organic Material
- ☐ 14. Ochre quarry
- ☐ 15. Potential Archaeological Deposit
- ☐ 16. Stone Quarry
- ☐ 17. Shell
- ☐ 18. Stone Arrangement
- ☐ 19. Modified Tree
- ☐ 20. Water Hole

Condition of Ceiling

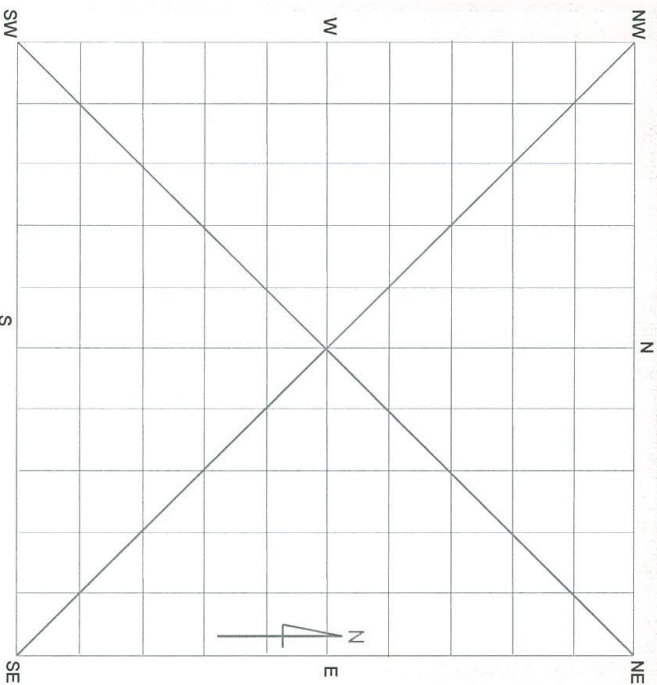
- Boulder ☐
- Sandstone platform ☐
- Silica gloss ☐
- Tessellated ☐
- Weathered ☐
- Other platform ☐

Shelter Aspect

- North ☐
- North East ☐
- East ☐
- South East ☐
- South ☐
- South West ☐
- West ☐
- North West ☐

Site Plan

Indicate scale, boundaries of site, features



Site Dimensions

Closed Site Dimensions (m)

- Internal length
- Internal width
- Shelter height
- Shelter floor area

Open Site Dimensions (m)

- Total length of visible site
- Average width of visible site
- Estimated area of visible site
- Length of assessed site area

Aboriginal Community Interpretation and Management Recommendations

[illegible]

Preliminary Site Assessment

Site Cultural & Scientific Analysis and Preliminary Management Recommendations

[illegible]

This section should only be filled in by the Endorsees

Endorsed by: ☐ Knowledge Holder ☐ Nominated Trustee ☐ Native Title Holder ☐ Community Consensus

Title

Surname

First Name

Initials

[illegible]

Organisation

[illegible]

Address

[illegible]

Phone number

[illegible]

Fax

[illegible]

Attachments (No.)

Comments

<input checked="" type="checkbox"/>	A4 location map	
<input type="checkbox"/>	BMW photographs	
<input checked="" type="checkbox"/>	Colour photographs	
<input type="checkbox"/>	Slides	
<input type="checkbox"/>	Aerial photographs	
<input type="checkbox"/>	Site plans, drawings	
<input type="checkbox"/>	Recording tables	
<input type="checkbox"/>	Other	
<input type="checkbox"/>	Feature inserts-No.	

NPWS FEATURE RECORDING TABLE - ARTEFACT

page 2

Stone Artefact

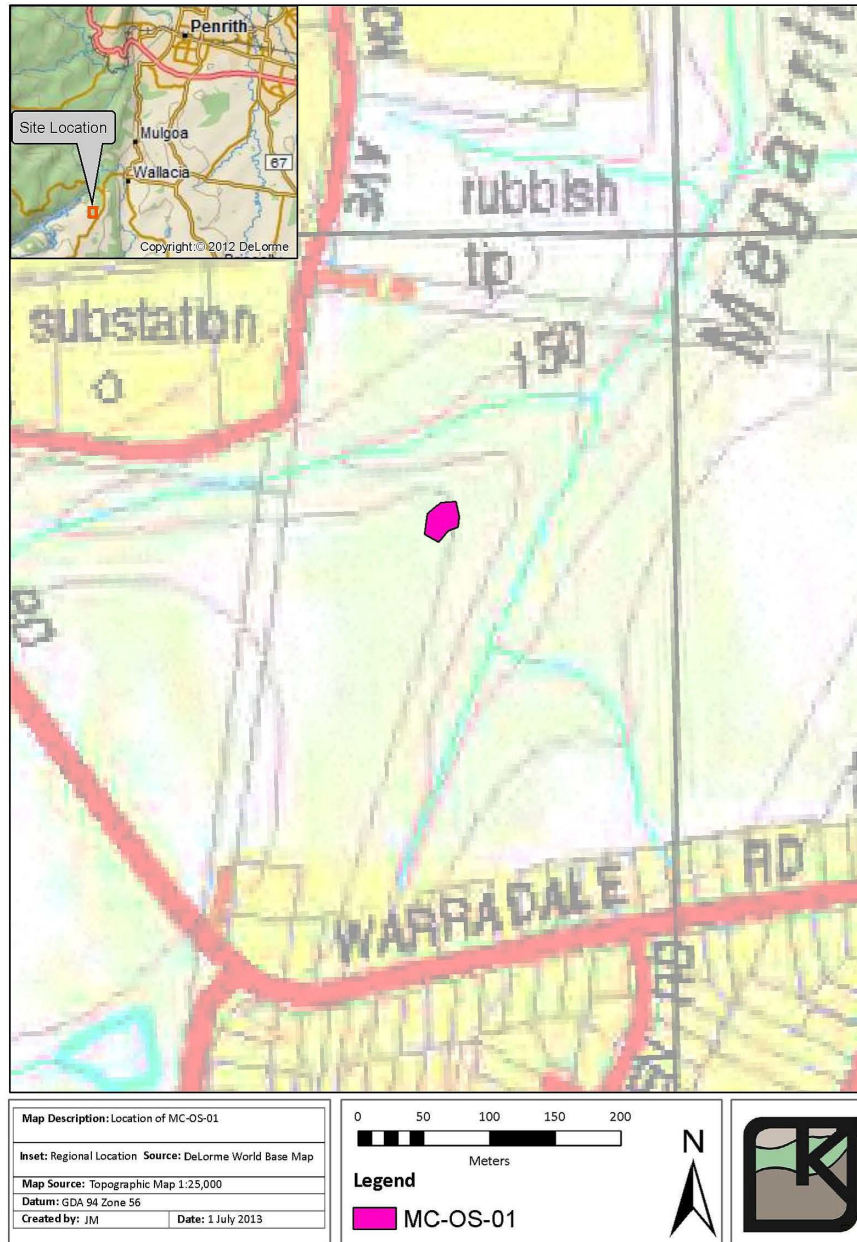
Instance No.	Recording Date	Artefact Material	Artefact Type	Platform Surface	Platform Type	Termination	Cross Section	Length (mm)	Width (mm)	Thickness (mm)
1	28/2/2013	Fine Grained Flake	Indeterminate	Focal	Feather	High/Strong	31	23	9	
2	28/2/2013	Fine Grained Flaked Piece	Indeterminate	Indeterminate	-	Low/Weak	18	8	2	
3	28/2/2013	Fine Grained Proximal Fragn	Indeterminate	Focal	-	Low/Weak	20	21	9	
4	28/2/2013	Fine Grained Blade	Indeterminate	Focal	-	High/Weak	21	9	3	

Other Artefact Type

Instance No.	Recording Date	Artefact Material	Artefact Type	Description	Length (mm)	Width (mm)	Thickness (mm)
--------------	----------------	-------------------	---------------	-------------	-------------	------------	----------------

Material	Artefact Description	Platform Surface	Termination
Basalt	Clear glass	Adze	Flake tool
Ceramic	Ceramic	Anvil	Flaked piece
Chert	Ceramic	Axe	Hammerstone
Fine grained siliceous	Porcelain	Backed blade	Manuport
Granite	Tin can	Blade	Milling slab
Quartz	Wire	Core	Mortar
Quartzite	Nail	Core tool	Muller
Sandstone	Button	Cyclon	Nuclear tool
Silcrete	Shell	Distal fragment	Piri
Green glass	Bone	Eloura	Proximal fragment
Amber glass	Wood	Flake	Tula
Amethyst glass	Resin		Other diagnostic type
			Modified
			Unworked

Comments:



MC-OS-01 PHOTO



136
Ventral surface



140
Ventral surface



144
Ventral surface



146
Ventral surface



138
Dorsal surface



141
Dorsal surface



143
Dorsal surface





147
Dorsal surface

MC-OS-01 PHOTO



149

Figure 1: MC-OS-01 General view looking northeast

 Aboriginal Site Recording Form 		Office of Environment & Heritage
AHIMS Registrar PO Box 1967, Hurstville NSW 2220		
Office Use Only		
Site Number <input type="text"/>		
Date received <input type="text"/> Date entered into system <input type="text"/> Date catalogued <input type="text"/>		
Entered by (I.D.) <input type="text"/>		
Information Access		
<input type="checkbox"/> Gender/male <input type="checkbox"/> Gender/female <input type="checkbox"/> Location restriction <input type="checkbox"/> General restriction <input type="checkbox"/> No access		
For Further Information Contact:		
<input type="checkbox"/> Nominated Trustee		
Title	Surname	First Name Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation <input type="text"/>		
Address <input type="text"/>		
Phone number <input type="text"/> Fax <input type="text"/>		
<input type="checkbox"/> Knowledge Holder		
Title	Surname	First Name Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation <input type="text"/>		
Address <input type="text"/>		
Phone number <input type="text"/> Fax <input type="text"/>		
Aboriginal Heritage Unit or Cultural Heritage Division Contacts		
<input type="text"/>		
Geographic Location		
Site Name <input type="text"/>		
Easting	Northing	AGD/GDA <input type="text"/>
<input type="text"/>	<input type="text"/>	
Mapsheet <input type="text"/>		
Zone	Location Method <input type="text"/>	
<input type="text"/>	Non-Differential GPS	
Other Registration <input type="text"/>		
Primary Recorder		
Title	Surname	First Name Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation <input type="text"/>		
Address <input type="text"/>		
Phone number <input type="text"/> Fax <input type="text"/>		
Date recorded <input type="text"/>		
Client on system <input type="checkbox"/>		

NPWS Aboriginal Site Recording Form - Site Information

page 3

General Site Information

Closed Site

Shelter/Cave Formation
☐ Boulder
☐ Wind erosion
☐ Water erosion
☐ Rock collapse

Rock Surface Condition
☐ Boulder
☐ Sandstone platform
☐ Silica gloss
☐ Tessellated
☐ Weathered
☐ Other platform

Condition of Ceiling

☐ Boulder
☐ Sandstone platform
☐ Silica gloss
☐ Tessellated
☐ Weathered
☐ Other platform

Shelter Aspect

☐ North
☐ North East
☐ East
☐ South East
☐ South
☐ South West
☐ West
☐ North West

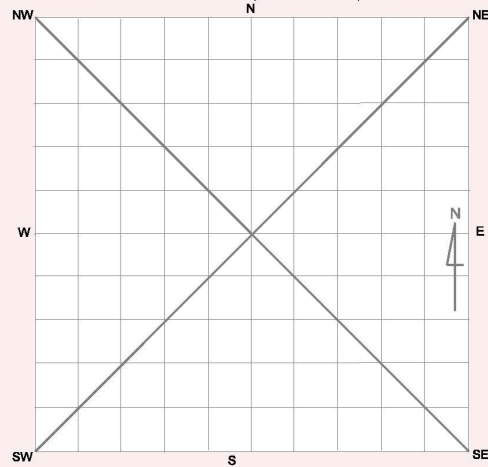
Open Site

Site Orientation
☐ N-S
☐ NE-SW
☐ E-W
☐ SE-NW
☒ N/A

Features

- ☐ 1. Aboriginal Ceremony & Dreaming
☐ 2. Aboriginal Resource & Gathering
☐ 3. Art
☒ 4. Artefact
☐ 5. Burial
☐ 6. Ceremonial Ring
☐ 7. Conflict
☐ 8. Earth Mound
☐ 9. Fish Trap
☐ 10. Grinding Groove
☐ 11. Habitation Structure
☐ 12. Hearth
☐ 13. Non Human Bone & Organic Material
☐ 14. Ochre quarry
☐ 15. Potential Archaeological Deposit
☐ 16. Stone Quarry
☐ 17. Shell
☐ 18. Stone Arrangement
☐ 19. Modified Tree
☐ 20. Water Hole

Site Plan Indicate scale, boundaries of site, features



Site Dimensions

Closed Site Dimensions (m)

Internal length
 Internal width
 Shelter height
 Shelter floor area

Open Site Dimensions (m)

Total length of visible site
 Average width of visible site
 Estimated area of visible site
 Length of assessed site area

NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement *page 4*

Aboriginal Community Interpretation and Management Recommendations

Preliminary Site Assessment

Site Cultural & Scientific Analysis and Preliminary Management Recommendations

SD-IF-01 is located on a surface within the un-vegetated portion of the date palm and fig tree plantation.

SD-IF-01 has been identified within an area of moderate to high ground disturbance, and due to its location and the fact that it was not identified previously by Biosis, it is considered highly likely that the artefact became exposed as a result of the practices associated with the fig tree and date palm plantation

This section should only be filled in by the Endorsees

Endorsed by: ☐ Knowledge Holder ☐ Nominated Trustee ☐ Native Title Holder ☐ Community Consensus

Title	Surname	First Name	Initials
Organisation			
Address			
Phone number		Fax	

Attachments (No.)	Comments
<input checked="" type="checkbox"/> A4 location map	
<input type="checkbox"/> B/W photographs	
<input type="checkbox"/> Colour photographs	
<input type="checkbox"/> Slides	
<input type="checkbox"/> Aerial photographs	
<input type="checkbox"/> Site plans, drawings	
<input type="checkbox"/> Recording tables	
<input type="checkbox"/> Other	
<input type="checkbox"/> Feature inserts-No. <input type="checkbox"/>	

NPWS FEATURE RECORDING FORM - ARTEFACT page 1

Site I.D. Site Name

First recorded date Importance

No. of instances

Recorded by

Yes No

Stone artefacts only

Artefacts collected

Permit issued

Percentage of Non-stone Artefacts to Percentage of Stone Artefacts

0-9% 10-19% 20-29% 30-39% 40-49% 50-59% 60-69% 70-79% 80-89% 90-100%

Feature Context & Condition

Scatter No. Easting Northing

Density (Artefact count per square metre) **Dimensions** Length (m) Width (m) Depth (m)

Yes No

In situ

Stratified

Feature Condition **General Condition** **Recommended Action**

☐ Very good ☐ Weathered ☐ Boardwalk ☐ Revegetation

☐ Good ☐ Vehicle damage ☐ Fencing ☐ Signage

☒ Poor ☐ Surface water wash ☐ Closure to public ☐ Soil erosion control

☐ Fire damage ☐ Continued inspection ☐ Track closure/re-routing

☐ Erosion ☐ Fire hazard reduction ☐ Additional recording

☐ Stock damage ☐ Expert assessment

☐ Exposed archaeological material ☐ Meeting with land manager

Feature Plan (Indicate scale, location of instances)

Feature Environment (Complete when feature environment differs to site environment, use attributes from cover card, p. 2)

Land form

Land form unit

Slope

Vegetation

Land use



Water

Distance to permanent water source metres

Distance to temporary water source metres

Name of nearest permanent water source

Name of nearest temporary water

 Aboriginal Site Recording Form 		Office of Environment & Heritage
AHIMS Registrar PO Box 1967, Hurstville NSW 2220		
Office Use Only		
Site Number <input type="text"/>		
Date received <input type="text"/> Date entered into system <input type="text"/> Date catalogued <input type="text"/>		
Entered by (I.D.) <input type="text"/>		
Information Access		
<input type="checkbox"/> Gender/male <input type="checkbox"/> Gender/female <input type="checkbox"/> Location restriction <input type="checkbox"/> General restriction <input type="checkbox"/> No access		
For Further Information Contact:		
<input type="checkbox"/> Nominated Trustee		
Title	Surname	First Name Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation <input type="text"/>		
Address <input type="text"/>		
Phone number <input type="text"/> Fax <input type="text"/>		
<input type="checkbox"/> Knowledge Holder		
Title	Surname	First Name Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation <input type="text"/>		
Address <input type="text"/>		
Phone number <input type="text"/> Fax <input type="text"/>		
Aboriginal Heritage Unit or Cultural Heritage Division Contacts		
<input type="text"/>		
Geographic Location		
Site Name <input type="text"/>		
Easting	Northing	AGD/GDA
<input type="text"/>	<input type="text"/>	<input type="text"/>
Mapsheet <input type="text"/>		
Zone	Location Method	
<input type="text"/>	<input type="text"/>	
Other Registration <input type="text"/>		
Primary Recorder		
Title	Surname	First Name Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation <input type="text"/>		
Address <input type="text"/>		
Phone number <input type="text"/> Fax <input type="text"/>		
Date recorded <input type="text"/>		
Office Use Only		
Client on system <input type="checkbox"/>		
Client on system <input type="checkbox"/>		

NPWS Aboriginal Site Recording Form - Site Information

page 3

General Site Information

Closed Site

Shelter/Cave Formation
☐ Boulder
☐ Wind erosion
☐ Water erosion
☐ Rock collapse

Rock Surface Condition
☐ Boulder
☐ Sandstone platform
☐ Silica gloss
☐ Tessellated
☐ Weathered
☐ Other platform

Condition of Ceiling

☐ Boulder
☐ Sandstone platform
☐ Silica gloss
☐ Tessellated
☐ Weathered
☐ Other platform

Shelter Aspect

☐ North
☐ North East
☐ East
☐ South East
☐ South
☐ South West
☐ West
☐ North West

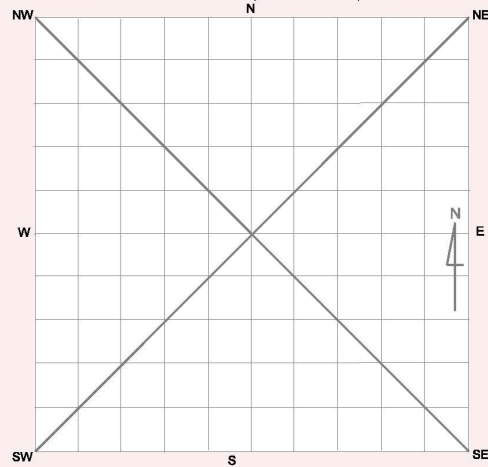
Open Site

Site Orientation
☐ N-S
☐ NE-SW
☐ E-W
☐ SE-NW
☒ N/A

Features

- ☐ 1. Aboriginal Ceremony & Dreaming
- ☐ 2. Aboriginal Resource & Gathering
- ☐ 3. Art
- ☒ 4. Artefact
- ☐ 5. Burial
- ☐ 6. Ceremonial Ring
- ☐ 7. Conflict
- ☐ 8. Earth Mound
- ☐ 9. Fish Trap
- ☐ 10. Grinding Groove
- ☐ 11. Habitation Structure
- ☐ 12. Hearth
- ☐ 13. Non Human Bone & Organic Material
- ☐ 14. Ochre quarry
- ☐ 15. Potential Archaeological Deposit
- ☐ 16. Stone Quarry
- ☐ 17. Shell
- ☐ 18. Stone Arrangement
- ☐ 19. Modified Tree
- ☐ 20. Water Hole

Site Plan Indicate scale, boundaries of site, features



Site Dimensions

Closed Site Dimensions (m)

Internal length
 Internal width
 Shelter height
 Shelter floor area

Open Site Dimensions (m)

Total length of visible site
 Average width of visible site
 Estimated area of visible site
 Length of assessed site area

NPWS Aboriginal Site Recording Form - Site Interpretation and Community Statement *page 4*

Aboriginal Community Interpretation and Management Recommendations

Preliminary Site Assessment

Site Cultural & Scientific Analysis and Preliminary Management Recommendations

SD-IF-02 has been identified within an area of low to moderate ground disturbance, and due to its location and the fact that it was not identified previously by Biosis, it is considered highly likely that the artefact became exposed as a result of the land clearance for pastoral and land access practices.

KAS proposes that a test excavation program be undertaken in accordance with the Code of Practice (DECCW, 2010a) be undertaken as part of the mitigation strategy. Due to identification of SD-IF-02 within an area of low to moderate ground disturbance, there is the potential for unknown Aboriginal stone artefacts to be present.

This section should only be filled in by the Endorsees

Endorsed by: ☐ Knowledge Holder ☐ Nominated Trustee ☐ Native Title Holder ☐ Community Consensus

Title	Surname	First Name	Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation <input type="text"/>			
Address <input type="text"/>			
Phone number <input type="text"/>		Fax <input type="text"/>	

Attachments (No.)

- ☒ A4 location map
- ☐ B/W photographs
- ☐ Colour photographs
- ☐ Slides
- ☐ Aerial photographs
- ☐ Site plans, drawings
- ☐ Recording tables
- ☐ Other
- ☐ Feature inserts-No.

Comments

NPWS FEATURE RECORDING FORM - ARTEFACT										page 1
Site I.D.	SD-IF-02		Site Name							
First recorded date	24/09/18		Importance	Contributes to primary site importa						
No. of instances	1									
Recorded by	MRW									
	Yes No									
Stone artefacts only	Yes									
Artefacts collected	Yes									
Permit issued	No									
			Percentage of Non-stone Artefacts to Percentage of Stone Artefacts 0-9% 10-19% 20-29% 30-39% 40-49% 50-59% 60-69% 70-79% 80-89% 90-100%							
			0-9%							

Feature Context & Condition

Scatter No. 1

Density 1 (Artefact count per square metre)

Dimensions

Length (m) 1 Width (m) 1 Depth (m)

Easting 2 7 9 6 7 8

Northing 6 2 4 7 0 0 6

Yes No

In situ No

Stratified No

Feature Condition	General Condition	Recommended Action
<input type="checkbox"/> Very good	<input type="checkbox"/> Weathered	<input type="checkbox"/> Boardwalk
<input type="checkbox"/> Good	<input type="checkbox"/> Vehicle damage	<input type="checkbox"/> Fencing
<input checked="" type="checkbox"/> Poor	<input type="checkbox"/> Surface water wash	<input type="checkbox"/> Closure to public
	<input type="checkbox"/> Fire damage	<input type="checkbox"/> Continued inspection
	<input type="checkbox"/> Erosion	<input type="checkbox"/> Fire hazard reduction
	<input type="checkbox"/> Stock damage	<input type="checkbox"/> Expert assessment
	<input type="checkbox"/> Exposed archaeological material	<input type="checkbox"/> Meeting with land manager
		<input type="checkbox"/> Revegetation
		<input type="checkbox"/> Signage
		<input type="checkbox"/> Soil erosion control
		<input type="checkbox"/> Track closure/re-routing
		<input type="checkbox"/> Additional recording

Feature Plan

(Indicate scale, location of instances)

Feature Environment

(Complete when feature environment differs to site environment, use attributes from cover card, p. 2)

Land form

Land form unit

Slope

Vegetation

Land use

Water

Distance to permanent water source metres

Distance to temporary water source metres

Name of nearest permanent water source Scotchys Creek

Name of nearest temporary water source

Contact Us

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

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PO Box 2443 North Parramatta
NSW 1750 Australia

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

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



Our services

Ecology and biodiversity

Terrestrial
Freshwater
Marine and coastal
Research and monitoring
Wildlife Schools and training

Heritage management

Aboriginal heritage
Historical heritage
Conservation management
Community consultation
Archaeological, built and landscape values

Environmental management and approvals

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

Environmental offsetting

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