

75 Warnervale Road

Aboriginal Heritage Due Diligence Assessment



Prepared by: RPS AUSTRALIA EAST PTY LTD
Level 13, 255 Pitt Street
Sydney, NSW 2000
Australia

T: +61 2 9248 9800
E: lucy.irwin@rpsgroup.com.au

Author: Lucy Irwin
Reviewed: Aly Howard
Approved: Aly Howard
No.: PR140375
Version: 2.2
Date: August 2019

Prepared for: BILLARD LEECE PARTNERSHIP
Michael Cashell
Senior Architect & Project Director

T: +61 2 8096 4066
E: michaelc@blp.com.au
W: <http://www.blp.com.au/>

Document Status

Version	Purpose of Document	Approved by	Reviewed by	Review Date
1.0	Draft Copy	Aly Howard	Aly Howard	2/7/2018
2.0	Client Copy based on above review	N/A	N/A	N/A
2.1	Final Copy – No changes	N/A	N/A	N/A
2.2	Updated final copy re design change	N/A	N/A	2/08/2019

Approval for issue

Name	Signature	Date
Aly Howard		2/08/2019

This report was prepared by [RPS Australia East Pty Ltd ('RPS')] within the terms of its engagement and in direct response to a scope of services. This report is strictly limited to the purpose and the facts and matters stated in it and does not apply directly or indirectly and must not be used for any other application, purpose, use or matter. In preparing the report, RPS may have relied upon information provided to it at the time by other parties. RPS accepts no responsibility as to the accuracy or completeness of information provided by those parties at the time of preparing the report. The report does not take into account any changes in information that may have occurred since the publication of the report. If the information relied upon is subsequently determined to be false, inaccurate or incomplete then it is possible that the observations and conclusions expressed in the report may have changed. RPS does not warrant the contents of this report and shall not assume any responsibility or liability for loss whatsoever to any third party caused by, related to or arising out of any use or reliance on the report howsoever. No part of this report, its attachments or appendices may be reproduced by any process without the written consent of RPS. All enquiries should be directed to RPS.

Executive Summary

RPS was engaged by Billard Leece Partnership to prepare an Aboriginal Heritage Due Diligence Assessment. The purpose of a due diligence assessment is to demonstrate that reasonable and practicable measures have been taken to prevent harm to an Aboriginal object or place and has been undertaken in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (2010) ("Due Diligence Code"). This report has been issued in support of a State Significant Development (SSD) application for the proposed new Warnervale Public School.

This due diligence assessment has been prepared for 75 Warnervale Road, Warnervale (The Project Area) Lot 71 of Deposited Plan (DP) 7091. The Project Area has an area of approximately 45,828 square metres and an overall dimension of approximately 325 metres by 144 metres. The Project Area is located within Warnervale in the Central Coast Council Government Area (LGA) and within the Darkinjung Local Aboriginal Land Council (Darkinjung LALC) boundary.

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken on 7 June 2018 which identified 25 sites within the searched area. There was one AHIMS site located within the Project Area, #45-3-3420 'OWP ISO 17'.

A visual inspection of the Project Area was undertaken on 20th June 2018 by RPS Heritage Manager Aly Howard and RPS Heritage Consultant Lucy Irwin. The location of AHIMS site #45-3-3420 was located and inspected, the isolated stone artefact which was originally recorded was unable to be located. The project area appeared to have been subject to a moderate amount of disturbance. No previously unrecorded Aboriginal objects or areas of archaeological potential were identified within the Project Area. In a majority of the Project Area, the A1 horizon appeared to have been removed, likely removing any potential archaeological deposits that may have existed. Therefore, the archaeological potential of the area is assessed to be nil to low.

Based on the findings of this assessment and in consideration of the relevant legislation and guidelines the following recommendations are proposed

Recommendation 1

The proposed works within the Project Area will impact on Aboriginal object OWP ISO 17 (#45-33420). Under the statutory requirements outlined in both the *Wyong Shire Development Control Plan 2013 Location Specific Development Provisions - Warnervale South* and the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, now OEH, 2010) an Aboriginal Cultural Heritage Assessment Report (ACHAR) and Aboriginal Cultural Heritage Management Plan (ACHMP) should be conducted for the site prior to the commencement of the proposed works.

Recommendation 2

RPS recommends that all relevant personnel, contractors and subcontractors undergo an Aboriginal cultural heritage induction. The induction would outline the legal obligations for Aboriginal cultural heritage under the *National Parks and Wildlife Act 1974* and *Heritage Act 1977*.

Recommendation 3

RPS recommends the due diligence report is kept so that it can be presented, if needed, as a defence from prosecution under Section 86 of the *National Parks and Wildlife Act 1974*.

Recommendation 4

If unrecorded Aboriginal objects are identified during the proposal, all activities within that area must cease and the area cordoned off. OEH must be notified by ringing the Enviroline on 131 555 so that it can be adequately assessed and managed.

Recommendation 5

In the event that human remains are identified, all activity within that area must cease immediately and the area cordoned off. The proponent must contact the local NSW Police, who will make an initial assessment as to whether the remains are archaeological. If the remains are determined to be Aboriginal, OEH must be notified on Enviroline on 131 555. An OEH officer will determine if the remains are Aboriginal or not. If the remains are identified as Aboriginal, a management plan must be developed in consultation with the Aboriginal community.

Contents

EXECUTIVE SUMMARY	III
Recommendation 1	iii
Recommendation 2	iii
Recommendation 3	iii
Recommendation 4	iv
Recommendation 5	iv
1 INTRODUCTION	7
1.1 Project Area	7
1.2 Proposed Activity	7
1.3 Methodology	8
1.4 Limitations	8
1.5 Authorship and Acknowledgements	8
2 LEGISLATIVE CONTEXT	11
2.1 <i>National Parks and Wildlife Act 1974</i>	11
Notification of Aboriginal objects	11
2.2 <i>National Parks and Wildlife Regulation 2009</i>	12
Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW, now OEH, 2010)	12
2.3 <i>Environmental Planning & Assessment Act 1979 (EP&A Act)</i>	13
Wyong Local Environmental Plan 2013	13
Wyong Shire Development Control Plan 2013	13
3 ENVIRONMENTAL CONTEXT	14
3.1 Geology and Soils	14
3.2 Topography and Hydrology	15
3.3 Flora and Fauna	15
3.4 Synthesis of Environmental Context	15
4 HERITAGE CONTEXT	17
4.1 Aboriginal Heritage Information Management System (AHIMS)	17
OWP ISO 17 (AHIMS #45-3-3420)	17
4.2 Previous Archaeological Studies	17
4.3 Synthesis of Heritage Context	20
5 VISUAL INSPECTION AND FIELD RESULTS	23
6 DISCUSSION	26
7 CONCLUSION AND RECOMMENDATIONS	27
Recommendation 1	27
Recommendation 2	27
Recommendation 3	27

Recommendation 4.....	27
Recommendation 5.....	27
REFERENCES	28

Tables

Table 1	Gorokan Soil Landscape (Murphy 1993:63-4)	14
Table 2	Extensive Search Results	17

Figures

Figure 1	Project Area.....	9
Figure 2	Development Footprint.....	10
Figure 3	15-41 Warnervale Study Area outlined in purple (Extent Heritage Advisors 2018) with 75 Warnervale Project Area outlined in red (the current Project Area).....	20
Figure 4	AHIMS	21
Figure 5	Location of AHIMS site #45-3-3420 'OWP ISO 17'.....	22

Plates

Plate 1	Basketball court with landscape modification, facing south (RPS 2018)	24
Plate 2	Showing landscape modification to south of basketball court, facing east (RPS 2018)	24
Plate 3	Showing vegetation clearance behind structures, facing west (RPS 2018)	24
Plate 4	Large access track south of existing structures, facing south (RPS 2018)	24
Plate 5	Evidence of clay exposures, facing south (RPS 2018)	24
Plate 6	Dense scrub to east of property, facing east (RPS 2018)	24
Plate 7	Small areas of exposure along track, facing south (RPS 2018)	25
Plate 8	Immature eucalypts along drainage line, facing north (RPS 2018)	25
Plate 9	Location of AHIMS site #45-3-3420 facing north, scale 1 metre (RPS 2018)	25
Plate 10	Location of AHIMS site #45-3-3420 Scale 1.4 metres (RPS 2018).....	25

Appendices

Appendix A	AHIMS Search
------------	--------------

1 Introduction

RPS has been engaged by Billard Leece Partnership to prepare an Aboriginal Heritage Due Diligence Assessment. The purpose of a due diligence assessment is to demonstrate that reasonable and practicable measures have been taken to prevent harm to an Aboriginal object or place and has been undertaken in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (2010) ("Due Diligence Code"). This report will be issued in support of a State Significant Development (SSD) application for the proposed new Warnervale Public School.

This report outlines the relevant environmental and archaeological context, landforms, landscape features, disturbances, legislative context and the nature of the proposed activity. This information has been considered in formulating the recommendations.

1.1 Project Area

This due diligence assessment has been prepared for 75 Warnervale Road, Warnervale (The Project Area) Lot 71 of Deposited Plan (DP) 7091. The Project Area has an area of approximately 45,828 square metres and an overall dimension of approximately 325 metres by 144 metres.

The Project Area is located within Warnervale in the Central Coast Council Government Area (LGA) and within the Darkinjung Local Aboriginal Land Council (Darkinjung LALC) boundary. Figure 1 shows the location and nature of the project area.

1.2 Proposed Activity

The proposed activity includes the construction of a new school on the site, with the following structures and amenities (see Figure 2);

- New Core 35 Hall
- New Core 21 Administration & Staff Building
- New Core 21 OOSH
- New Core 21 Canteen
- New Core 21 Library
- New Core 21 (2x) Special Programs
- New Teaching Spaces 20 (Includes 2 Special Education Teaching Spaces)
- New Core 21 Student Amenities
- New Core 21 COLA
- Staff Carpark 21 Spaces
- Visitor 5 Spaces
- Accessible 2 Spaces
- Related Road Works & Drop off/pick up Zone
- New Games Court

1.3 Methodology

This Aboriginal heritage due diligence assessment has been undertaken in accordance with the NSW Office of Environment and Heritage (OEH) *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW [now OEH] 2010) (Due Diligence Code); the NSW OEH *Code of Practice for the Investigation of Aboriginal Objects in New South Wales* (the Code) (DECCW 2010) and the *Australia ICOMOS Burra Charter* (ICOMOS 2013).

1.4 Limitations

This report considers only the Aboriginal heritage values of the Project Area. It does not provide an assessment of the non-Aboriginal (historical) heritage values of the Project Area.

1.5 Authorship and Acknowledgements

This report was prepared by Lucy Irwin (RPS Heritage Consultant). The report was reviewed by Aly Howard (RPS Heritage Manager – Sydney)

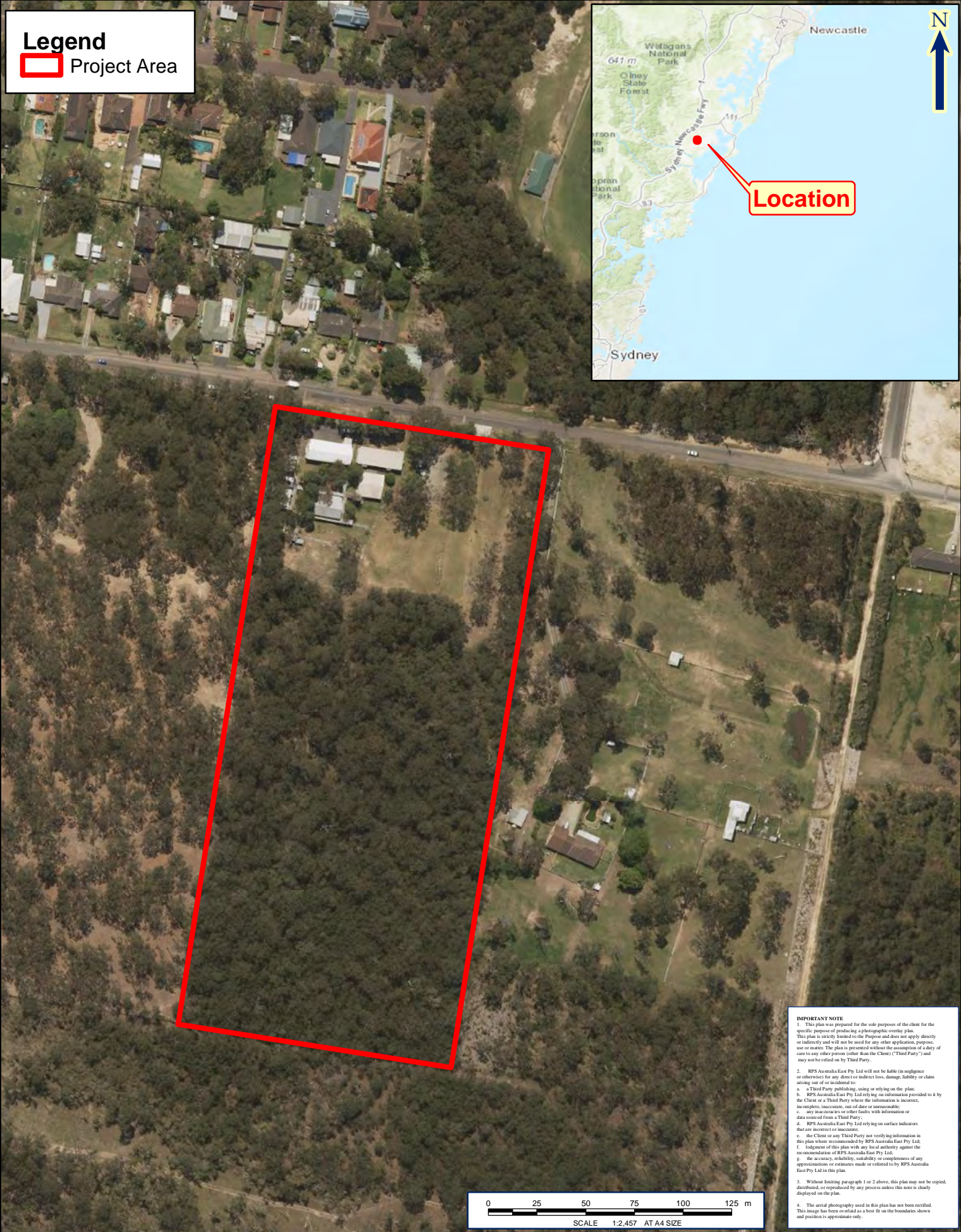


FIGURE 1: PROJECT AREA

LOCATION:	DATUM: GDA94
WARNERVALE	PROJECTION: MGA Zone 56
JOB NO.: PR140375	Data Sources:
PURPOSE: HERITAGE	RPS, AHIMS
Technician: Lucy Irwin	Land and Property 2015
Date: 13/06/2018	

2 Legislative context

The following overview of the legal framework is provided solely for information purposes for the client, it should not be interpreted as legal advice. RPS will not be liable for any actions taken by any person, body or group as a result of this general overview and recommend that specific legal advice be obtained from a qualified legal practitioner prior to any action being taken as a result of the summary below.

Although there are a number of Acts protecting and managing cultural heritage in New South Wales, the primary ones which apply to this report include:

- National Parks & Wildlife Act 1974
- National Parks & Wildlife Regulation 2009

In brief, the *National Parks & Wildlife Act 1974* protects Aboriginal heritage (places, sites and objects) within NSW; the *National Parks and Wildlife Regulation 2009* provides a framework for undertaking activities and exercising due diligence.

2.1 *National Parks and Wildlife Act 1974*

The *National Parks & Wildlife Act 1974* (NPW Act) protects Aboriginal heritage (places, sites and objects) within NSW. Protection of Aboriginal heritage is outlined in s86 of the Act, as follows:

- “A person must not harm or desecrate an object that the person knows is an Aboriginal object” s86(1),
- “A person must not harm an Aboriginal object” s86(2)
- “A person must not harm or desecrate an Aboriginal place” s86(4).

Penalties apply for harming an Aboriginal object or place. The penalty for knowingly harming an Aboriginal object (s86[1]) and/or an Aboriginal place (s86[4]) is up to \$550,000 for an individual and/or imprisonment for 2 years; and in the case of a corporation the penalty is up to \$1.1 million. The penalty for a strict liability offence (s86[2]) is up to \$110,000 for an individual and \$200,000 for a corporation.

Harm under the NPW Act is defined as any act that; destroys defaces or damages the object, moves the object from the land on which it has been situated, causes or permits the object to be harmed. However, it is a defence from prosecution if the proponent can demonstrate 1) that harm was authorised under an Aboriginal Heritage Impact Permit (AHIP) (and the permit was properly followed), or 2) that the proponent exercised due diligence in respect to Aboriginal heritage.

The ‘due diligence’ defence (s87(2)), states that if a person or company has exercised due diligence to ascertain that no Aboriginal object was likely to be harmed as a result of the activities proposed for the Project Area (subject area of the proposed activity); then liability from prosecution under the NPW Act will be removed or mitigated if it later transpires that an Aboriginal object was harmed.

Notification of Aboriginal objects

Under section 89A of the NPW Act Aboriginal objects (and sites) must be reported to the Director-General (now Chief Executive) of OEH within a reasonable time (unless it has previously been recorded and submitted to AHIMS). Penalties of \$11,000 for an individual and \$22,000 for a corporation may apply for each object not reported.

2.2 National Parks and Wildlife Regulation 2009

The *National Parks and Wildlife Regulation 2009* (“NPW Regulation”) provides a framework for undertaking activities and exercising due diligence in respect to Aboriginal heritage. The NPW Regulation 2009 outlines the recognised due diligence codes of practice which are relevant to this report. It also outlines procedures for AHIP applications and Aboriginal Cultural Heritage Consultation Requirements (ACHCRs); amongst other regulatory processes.

Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (DECCW, now OEH, 2010)

This report has been written to meet the Due Diligence Code. Under the s80A *National Parks & Wildlife Regulation 2009* (“NPW Regulation”) a number of due diligence codes are recognised.

The Due Diligence Code sets out a minimum benchmark for acceptable due diligence investigations to be followed. The purpose of the code is set out reasonable and practical steps in order to:

1. identify whether or not Aboriginal objects (and places) are, or are likely to be, present in an area
2. determine whether or not their activities are likely to harm Aboriginal objects (if present)
3. determine whether an AHIP application is required. (DECCW 2010:2)

Investigations under the code include the following:

- A search of the Aboriginal Heritage Information Management System (AHIMS) database to identify if there are previously recorded Aboriginal objects or places in the Project Area,
- Identification of landscape features including, land within 200m of water, dune systems, ridgetops, headlands, land immediately above or below cliff faces and/or rock shelters/caves,
- Desktop assessment including a review of previous archaeological and heritage studies and any other relevant material,
- Visual inspection of the Project Area to identify if there are Aboriginal objects present, and
- Assessment as to whether an AHIP is required.

This report has complied with the requirements of the code listed above. Other requirements under the code are outlined below.

Aboriginal consultation is not required for an investigation under the due diligence code (DECCW 2010:3). However, if the due diligence investigation shows that the activities proposed for the area are likely to harm objects or likely objects within the landscape, then an Aboriginal Heritage Impact Permit will be required with full consultation.

A record of the due diligence procedure followed must be kept to ensure it can be used as a defence from prosecution (DECCW 2010:15).

Following a due diligence assessment (where an AHIP application was not required), an activity may proceed with caution. If any Aboriginal objects are identified during the activity, then works should cease in that area and OEH notified (DECCW 2010:13). The due diligence defence does not authorise continuing harm.

2.3 *Environmental Planning & Assessment Act 1979 (EP&A Act)*

The EP&A Act is administered by the Department of Planning and Infrastructure and provides planning controls and requirements for environmental assessment in the development approval process. 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 process 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 1979 and the NPW Act.

The Project Area is within the Central Coast Council LGA and is governed by the Wyong Local Environmental Plan (WLEP), the Wyong Shire Development Control Plan (DCP).

Wyong Local Environmental Plan 2013

The Wyong Local Environmental Plan (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 at that place. Council must inform the local Aboriginal community about the application.

Wyong Shire Development Control Plan 2013

Chapter 3.7 of the Wyong Shire Development Control Plan (DCP) 2013 provides 'general heritage principles, objectives and controls relating to development on or in the vicinity of heritage items and Heritage Conservation Areas identified in the WLEP 2013' (Wyong DCP 3.7). In relation to Aboriginal heritage, the DCP provides the following;

- [...] 'The NSW Heritage Act 1977 and the Environmental Planning and Assessment Act, 1979 provide the legislative framework for heritage management in New South Wales'(Wyong DCP 1.2.1).
- [...] 'any known Aboriginal sites, places and relics in the Shire are identified in the Aboriginal Heritage Information Management System (AHIMS) Register and are administered under the National Parks and Wildlife Act 1974; works affecting such sites must be referred to the National Parks and Wildlife Service'(Wyong DCP 1.2.1).

Location Specific Development Provisions – Warnervale South

There are several location specific development provisions for the Warnervale South Precinct, including provisions for Aboriginal heritage (Section 2.13). The following provision applies to the Project Area;

- b. No development is to be undertaken or approved in the vicinity of identified sites before a Cultural Heritage Management Plan has been prepared by a suitably qualified person.

Note: Consultation of the AHIMS does not assume other cultural or archaeological evidence does not occur within the Project Area and does not relieve the applicant of the need to undertake appropriate additional investigations and studies where required.

3 Environmental context

The purpose of reviewing the relevant environmental information is to assist in identifying whether Aboriginal objects or places are present within the Project Area. The environmental context forms part of the desktop assessment required under the Due Diligence Code (DECCW 2010:12-13).

3.1 Geology and Soils

The Sydney Basin is a large geological feature that stretches from Batemans Bay in the south, to Newcastle in the north and inland to Lithgow (Clark and Jones 1991). The formation of the basin began between 250 and 300 million years ago when river deltas gradually replaced the ocean which had extended inland to Lithgow. The oldest Permian layers of the Sydney Basin consist of marine, alluvial and deltaic deposits that include shales and mudstone overlain by coal measures. By the Triassic period, the basin consisted of a large coastal plain, with deposits from this period divided into three main groups: the Narrabeen, Hawkesbury Sandstone and Wianamatta Groups (Clark and Jones 1991).

The underlying geology of the Project Area is the Tuggerah Formation of the Narrabeen Group (Gosford-Lake Macquarie 1:100 000). This geological formation comprises grey to green-grey laminite, red-brown claystone and siltstone interbedded with fine to medium grained green-grey sandstone.

The dominant soil landscape represented within the Project Area is the Gorokan soil landscape (Murphy 1993:62). This erosional landscape consists of moderately deep soloths, yellow podzolic soils on ridges and crests with soloths, yellow podzolic soils and grey-brown podzolic soils on slopes. Drainage lines are usually characterised by grey podzolic soils (Murphy 1993:62).

Table 1 Gorokan Soil Landscape (Murphy 1993:63-4)

Soil	Dominant Materials
gk1	Loose dark brown loamy sand. Dark brown loamy sand to sandy loam with single-grained structure and sandy fabric. It occurs as topsoil (A1 horizon). This material is often water repellent. Peds, when present, are weakly developed sub-angular blocky, 5–20 mm, with a rough porous ped fabric. Surface condition is friable to loose. Colour is commonly dark brown (10YR 3/3) but can range from brownish black (10YR 2/3) to dull yellowish brown (10YR 4/3). The pH ranges from strongly acid (pH 5.0) to moderately acid (pH 5.0–5.5). Charcoal and ironstone rock fragments are common. Roots are common.
gk2	Yellowish brown hardsetting clayey sand. Dull yellowish brown clayey sand with massive structure and earthy fabric. This material usually occurs as shallow subsoil (A2 horizon). This material is hardsetting when dry. Texture is usually clayey sand but can range from loamy sand to fine sandy clay loam. Colour ranges from dull yellowish brown (10YR 4/3) to dull yellow orange (10YR 6/3). This material often shows bleached colours when dry (10YR 7/2, 10YR 7/3). Pale yellow or orange mottles are often present and follow root channels. pH is usually moderately acid (pH 5.0) but can range to slightly acid (pH 6.0). Ironstone rock fragments are common. Charcoal fragments are few and roots are common.
gk3	Yellowish brown strongly pedal clay. Yellowish brown light to medium clay with strong angular blocky structure and rough ped fabric. It occurs as subsoil (B horizon). Texture is commonly a medium clay but can range from light clay to heavy clay. Peds range in size from 20–50 mm. Brown clay ped coatings (cutans) are distinctive and common. Colour is commonly yellowish brown (10YR 5/6, 10YR 5/8) or a bright yellowish brown (10YR 6/6, 10YR 6/8). Mottles may be present and often increase with depth. The pH ranges from strongly acid (pH 4.0) to moderately acid (pH 5.5). Few ironstone or sandstone rock fragments are present. Charcoal fragments are absent and roots are few.

Soil	Dominant Materials
gk4	Light grey massive clay. Light grey light medium to medium clay with massive structure and dense earthy fabric. It occurs as deep subsoil (B/C horizon) above sandstone bedrock. Occasionally a weak large prismatic structure (peds 20–100 mm) with rough ped surfaces is present. Colour is commonly light grey (10YR 7/1, 10YR 8/1, 10YR 8/2) but can range to dull yellow orange (10YR 6/3). Red yellow or orange mottles are often present. The pH is usually moderately acid (pH 5.0) but can range from strongly acid (pH 4.0) to slightly acid (pH 6.0). Rock fragments and roots are few and charcoal fragments are absent.

3.2 Topography and Hydrology

The topography of the area is of low hills and rises with local relief below 30 metres and slope gradients below 15 percent. Broad crests and ridges exist with long, gently inclined slopes and broad drainage lines. Rock outcrop is absent (Murphy 1993:62).

The regional area is bordered by Budgewoi Lake, approximately 5.5 kilometres the east, and the coastline of the Pacific Ocean. No creeks or drainage lines are located within the Project Area. The nearest creeks are Wallarah Creek (approximately five kilometres to the north east) and the Wyong River (approximately four kilometres to the south). Two modified drainage lines that flow to Porters Creek are also located approximately 650 metres to the west and south of the Project Area (Extent 2018:20). The low-lying aspect of the surrounding region indicates the area is likely subject to inundation. In addition, the areas to the west south and east of the Project Area are known to have been swampland that has now been drained (Extent 2018:20).

Both Wyong River and Wallarah Creek feed into Budgewoi Lake and would likely provide plentiful food resources. The watercourses immediately surrounding the Project Area would have supported a number of food and other resources. Fresh water streams are likely to have been accessed further west around the catchment areas, rock holes and terraces near ridge tops associated with the southern reaches of the Watagan mountains.

3.3 Flora and Fauna

Prior to European settlement, the dominant vegetation landscape within the Project Area would have been that of the Coastal Floodplain Wetlands (Keith 2007:226). This vegetation community was ideally suited for agricultural development upon European settlement and was extensively drained and cleared. The vegetation community present in the vicinity of the Project Area can therefore only be reconstructed from available evidence.

It is likely that trees within this vegetation community included species such as Sydney blue gum, mountain blue gum, cabbage gum, forest red gum and broad-leaved apple. The vegetation community likely had a dense understory of sedges, nettles and vines along the edge of rivers, with this understory becoming sparser the further away it was from the rivers edge. White cedar, cabbage palm and Morton bay figs are also species that may have been prevalent within this vegetation community. Wetland areas likely supported a 'mosaic' of forests, woodlands and 'reedlands.' Shrubs in this community were likely to have been the swamp paperbark and cheese tree, and several species of herbs may have grown in and around this vegetation community including lesser joyweed, scurvy weed, white root, slender knotweed and angled lobelia.

3.4 Synthesis of Environmental Context

The Project Area is located within what would have been a resource rich zone prior to European occupation. The watercourses of Budgewoi Lake and the Pacific Ocean would have provided food resources, with fresh water available from the western and southern reaches of the Watagan Mountains and from the surrounding swampland. Flora and fauna would have been exploited as reliable food sources, whilst the tall gums and dense understorey would have provided materials for tool production. The majority of exposed sandstone



outcropping in the wider region is associated with the Tuggerah and Narrabeen Formations, though siltstone can be sourced from the local geology. Sources of lithic materials for manufacture of tools may also have included cobbles collected from creek and river beds.

4 Heritage context

4.1 Aboriginal Heritage Information Management System (AHIMS)

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) was undertaken on 7th June 2018. An extensive search area which is wider than the Project Area is generally used in order to provide archaeological context for the local region. The search parameters were as follows:

Datum: GDA MGA Zone 56

Eastings: 353736 - 358303

Northings: 6317904 - 6321831

Number of Aboriginal Objects: 25

The extensive search identified 25 registered Aboriginal sites within the searched area. One Aboriginal site is located within the Project Area (an isolated stone artefact site). The AHIMS extensive search results are summarised in Table 2 and Figures 4 and 5 on the following pages.

Table 2 Extensive Search Results

Site Type	Frequency	Percentage
Artefact (Isolated Find)	14	56
Artefact Scatter	10	40
Potential Archaeological Deposit (PAD) with Artefact	1	4
Total	25	100

OWP ISO 17 (AHIMS #45-3-3420)

AHIMS site #45-3-3420 'OWP ISO 17' is located within the Project Area. The site was recorded as a single isolated artefact located within the worn exposure of the playground of Old Warnervale Public School (GDA 56J E.0356182 N6320002 +/- 6 metres). The object was registered as being located 200 metres from an ephemeral flood plain, in an area of 95 percent visibility. The artefact was identified as a metasedimentary flake measuring 13 x 16 x 2 millimetres with a faceted platform measuring 3 x 1 millimetre, with a feather termination and 45 percent cortex.

The Aboriginal object was identified and registered during the course of '*The Archaeological Investigation for Sites of Indigenous Cultural Significance in Precinct 7A Warnervale, Central Coast NSW*', details of which are further outlined in Section 4.2 below.

4.2 Previous Archaeological Studies

A number of archaeological surveys and reports have been produced for the region surrounding the Project Area. A review of previous local archaeological assessments is used to inform the potential for site type and site location.

Kuskie, P and Webster, V (2003) Aboriginal heritage assessment and survey, Watanobbi to Warnervale, NSW

An assessment of an arterial road linking Watanobbi and Warnervale was undertaken in 2003. The study area was divided into 35 survey areas and inspected. The landscape had been disturbed or modified from vegetation clearance, pasture grazing, roads and fences. The landforms varied across the study area from moderate to steep elevation to gently undulating plains. The study area for this assessment was located between 600 metres for 2.5 kilometres west and south-west of the Project Area.

The survey resulted in the identification of two Aboriginal objects, an artefact scatter and an isolated artefact in association with low-to-mid elevations above ephemeral creek lines. The archaeological inspection identified low to moderate levels of ground disturbance resulting in low archaeological potential.

Appleton, J (2004) Aboriginal heritage assessment for Landcom, Warnervale Town Centre, NSW

An Aboriginal heritage assessment was undertaken for proposed sewerage infrastructure at Warnervale Town Centre. The study area was bounded to the south by Sparks Road, east by Hiawatha Road, north by Hakone Road, and west by the Main Northern Railway. The study area was located approximately 1.5 kilometres north-east of the Project Area.

The study area was located across a landscape of low undulating slopes and wide drainage lines. Several ephemeral drainage lines extended across the study area. The report noted high levels of disturbance including extensive vegetation clearance for residential and industrial development, roads, bridges and associated infrastructure.

No Aboriginal objects were identified. The report concluded that the erosion across the landscape particularly near drainage lines caused by vegetation clearance, and the identified disturbances relating to residential and industrial development has resulted in a very low potential for Aboriginal objects and places to be present.

Archaeological Surveys and Reports (2009) Archaeological Investigations for Indigenous Sites, Precinct 7A, Warnervale

Wyong Shire Council engaged Archaeological Surveys and Reports to undertake an Indigenous sites investigation as part of a strategy for developing land use at Precinct 7A between Warnervale and Hamlyn Terrace on the Central Coast. The study area was located north of the Wadalba neighbourhood centre, bounded by Warnervale Aerodrome to west, Sparks Road to the north and the Pacific Highway to the south. To the north-east and south-east respectively, the site was bounded by Warnervale and Minnesota Roads. The study area for this assessment encompassed the Project Area.

Eighteen sites containing stone artefactual material were recorded during the investigation. Three other sites previously recorded in the survey area by other investigators were unable to be relocated. Site Recording Forms for each of the 18 new sites were lodged with DECCW to list them on the AHIMS Sites Register. These sites were identified during the AHIMS search for this current RPS (2018) due diligence report. Their location illustrates the relationship between Aboriginal objects and places and elevations in close proximity to watercourses.

RPS Harpers Somers O'Sullivan (2009) Aboriginal and European cultural heritage assessment, Somersby Falls Road, Somersby, NSW

RPS Harpers Somers O'Sullivan (RPS HSO) was commissioned by Hunter Land to undertake a cultural heritage survey and assessment for a proposed rezoning of a parcel of land at Somersby, NSW. The study area was located on the Somersby Plateau seven kilometres north west of Gosford, NSW and approximately 21 kilometres south-west of the Project Area.

The locality is comprised of gently undulating to rolling rises on deeply weathered Hawkesbury sandstone plateau with similar flora resources as the Woongarra area, such as silvertop ash, eucalypts and geebung

shrubs. The study area was located in a rurally zoned property which was partially cleared for stock grazing and was bordered by native bushland.

The report concluded that much of the study area had been cleared and extensive past land use would have greatly impacted upon any evidence of past Aboriginal occupation. No sites were identified within the immediate study area. The report concluded that the area had low potential for Aboriginal objects to occur in areas covered by vegetation and dense ground cover.

RPS Harpers Somers O'Sullivan (2009) Cultural heritage survey and assessment for Ramsgate Estate, Wyee Point, NSW

RPS HSO was commissioned by Lake Macquarie City Council (LMCC) to assess the potential Aboriginal and European cultural heritage of an area known as Ramsgate Estate, Wyee Point in the LMCC Local Government Area (LGA) to support a Stage 1 Local Environment Study (LES). The study area was located in close proximity to a lake and the Pacific Ocean coastline, approximately 14 kilometres north east of the Project Area. An unnamed creek also extended across the study area.

A shell midden site was recorded close to the shoreline of Lake Macquarie, but no other Aboriginal objects were located across the study area. The report concluded that the lack of fresh water available in the immediate study area indicated a low potential for stone artefacts.

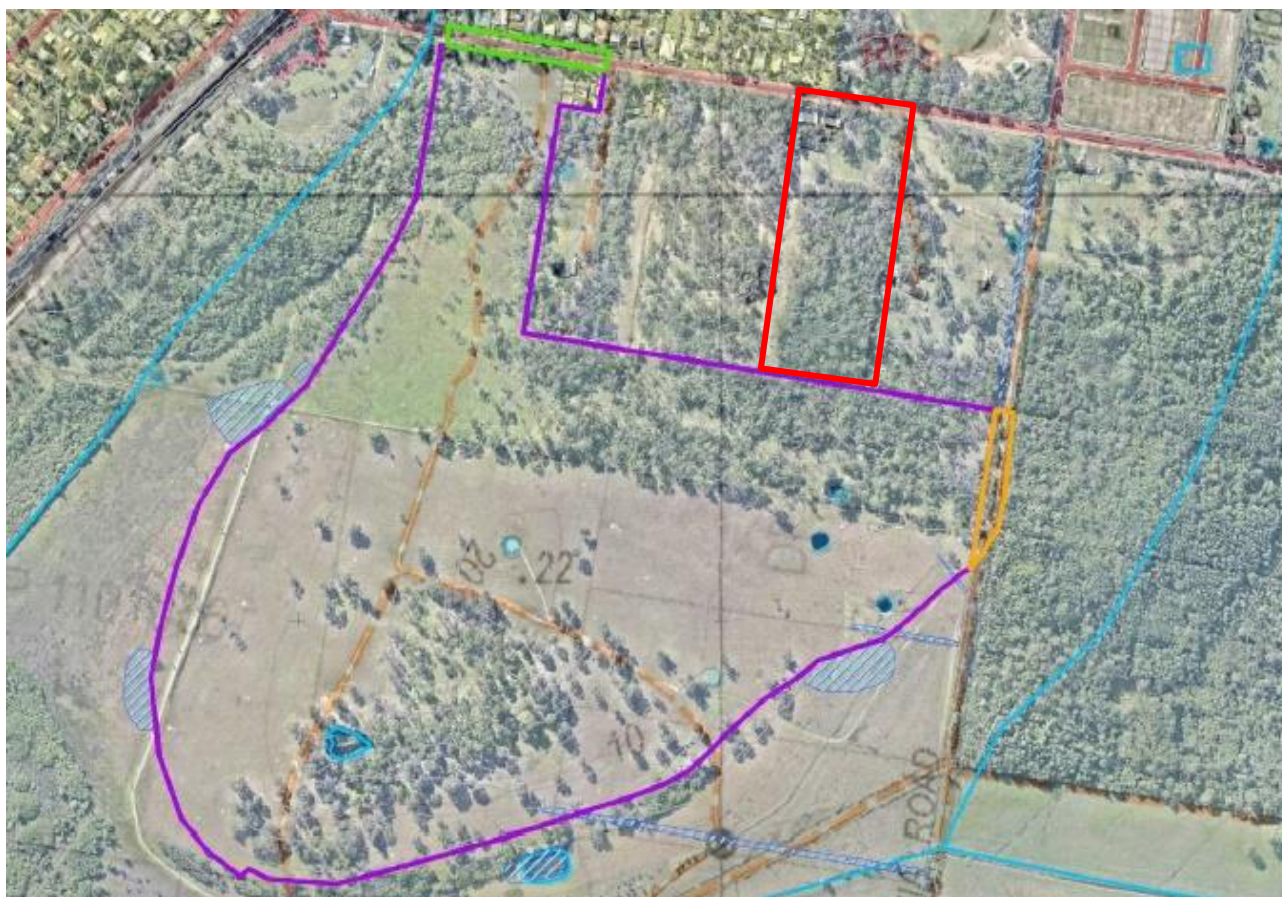
Extent Heritage Advisors (2018) 15-41 Warnervale Road, Warnervale NSW Central Coast LGA – Rezoning and Redevelopment. Aboriginal Cultural Heritage Assessment Report.

In 2018, Extent Heritage Advisors (Extent) were commissioned by ADW Johnson to undertake an Aboriginal Cultural Heritage Assessment Report (ACHAR) of 15-41 Warnervale Road, Warnervale. This assessment was located approximately 180 metres west and directly south of the Project Area (Figure 3). Previous archaeological investigations of Precinct 7A identified 18 Aboriginal objects within the precinct, 11 of which were within the study area. An ACHAR was undertaken to identify whether any Aboriginal sites, objects or cultural values may be affected by the proposed development. A preliminary archaeological survey of the subject area identified four previously unidentified sites in addition to the 11 previously identified sites within the study area. All new finds were located along the southern ridgeline and slope on the properties. Test excavation was then undertaken to investigate the spatial distribution and characteristics of the identified Aboriginal sites, and the areas of low, moderate and high archaeological sensitivity.

A total of 117 test pits were undertaken, the majority of which comprised soils consistent with the Gorokan soil landscape. 12 Aboriginal objects were recovered from the excavation. Silcrete was the dominant material followed by indurated mudstone tuff (IMT) and fine grained siliceous (FGS) material, also recovered was one piece of quartzite. Overall artefact density was calculated at 0.34 artefacts per square metre. The assessment identified that of the 15 discrete recordings or artefact sites, based on the survey and test excavation these Aboriginal objects reflected two low density surface and subsurface scatters along the crest and southern slopes of the ridgeline in the southern subject area. These were split into two discrete areas, 'Warnervale Residential Isolated Find 1' (#45-3-4055) of low heritage significance, and 'Warnervale Residential Artefact Scatter 1' (#45-3-4054) of moderate to high significance comprising the remaining previously identified sites.

The test pitting undertaken for the project included a portion of land directly south of the Project Area. Within these test pits, no Aboriginal archaeological material was uncovered. These areas were not considered to have further heritage constraints. It was concluded that an AHIP was required for the area in the south of the subject area characterised by crests and southern slopes of the ridgeline, and in which archaeological material was uncovered throughout the course of the test excavation.

Figure 3 15-41 Warnervale Study Area outlined in purple (Extent Heritage Advisors 2018) with 75 Warnervale Project Area outlined in red (the current Project Area)



4.3 Synthesis of Heritage Context

A total of 25 registered Aboriginal sites were identified on the AHIMS database within the extensive search area. Of the 25 sites identified, 24 are isolated finds or surface artefact scatters and 1 is an artefact with associated area of Potential Archaeological Deposit (PAD). The majority of registered sites in the local region are concentrated further south of the Project Area, on a crest and southern slope of a ridgeline.

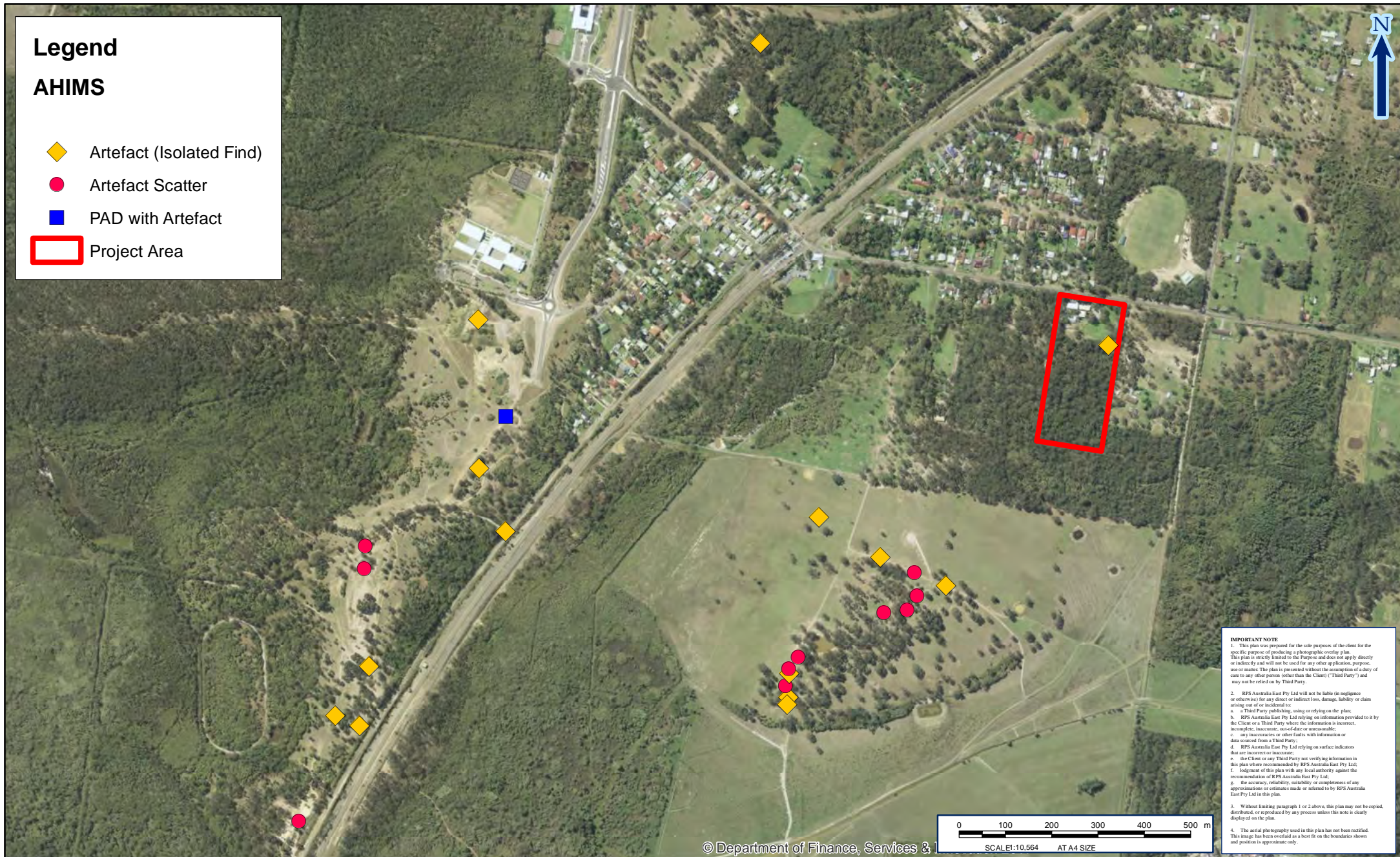
One registered Aboriginal site is located within the Project Area, AHIMS site OWP ISO 17 (#45-3-3420). AHIMS site #45-3-3420 is an isolated artefact, identified within a worn exposure of a playground of Old Warnervale Public School during the archaeological investigations for Precinct 7A (Archaeological Surveys and Reports (2009). Based on the findings of Extent's previous assessment for a nearby property (2018) it is assessed as unlikely that this isolated find reflects a continuation of the low-density artefact scatter present upon the ridgeline crest and slope approximately 400 metres south of the Project Area.

If previously unidentified Aboriginal objects are found during the course of the visual inspection, it is likely that these will represent isolated finds, artefact scatters or areas of archaeological potential. However, in areas of moderate to high disturbance it is unlikely that any intact deposits will be found.

Legend

AHIMS

- ◆ Artefact (Isolated Find)
- Artefact Scatter
- PAD with Artefact
- Project Area



IMPORTANT NOTE

1. This plan was prepared for the sole purposes of the client for the specific purpose of producing a photographic overlay plan. This plan is strictly limited to the Purpose and does not apply directly or indirectly and will not be used for any other application, purpose, use or matter. The plan is presented without the assumption of a duty of care to any other person (other than the Client ("Third Party")) and may not be relied on by Third Party.

2. RPS Australia East Pty Ltd will not be liable (in negligence or otherwise) for any direct or indirect loss, damage, liability or claim arising out of or incident to:

- a. a Third Party publishing, using or relying on the plan;
- b. RPS Australia East Pty Ltd relying on information provided to it by the Client or a Third Party where the information is incorrect, incomplete, inaccurate, out-of-date or unreasonable;
- c. any inaccuracies or other faults with information or data sourced from a Third Party;
- d. RPS Australia East Pty Ltd relying on surface indicators that are incorrect or inaccurate;
- e. the Client or any Third Party not verifying information in this plan where recommended by RPS Australia East Pty Ltd;
- f. judgment of this plan with any local authority against the recommendations of RPS Australia East Pty Ltd;
- g. the accuracy, reliability, suitability or completeness of any approximations or estimates made or referred to by RPS Australia East Pty Ltd in this plan.

3. Without limiting paragraph 1 or 2 above, this plan may not be copied, distributed, or reproduced by any process unless this note is clearly displayed on the plan.

4. The aerial photography used in this plan has not been rectified. This image has been overlaid as a best fit on the boundaries shown and position is approximate only.

Figure 4: AHIMS

LOCATION:
WARNERVALE

PURPOSE: HERITAGE
Technician: Lucy Irwin Date: 13/06/2018

DATUM: GDA94
PROJECTION: MGA Zone 56

Data Sources:
RPS, AHIMS
Land and Property 2015

CLIENT: BILLARD LEECE PARTNERSHIP
JOB REF: PR140375

RPS AUSTRALIA EAST PTY LTD (ABN 44 140 292 762)
LEVEL 13, 255 PITT STREET SYDNEY
T: 02 8270 8300 www.rpsgroup.com.au

creative people
making a difference

RPS



FIGURE 5: AHIMS SITE #45-3-3420

LOCATION:	WARNERVALE	DATUM: GDA94
JOB NO.:	PR140375	PROJECTION: MGA Zone 56
PURPOSE: HERITAGE		Data Sources: RPS, AHIMS Land and Property 2015
Technician: Lucy Irwin	Date: 13/06/2018	

CLIENT: BILLARD LEECE PARTNERSHIP

RPS AUSTRALIA EAST PTY LTD (ABN 44 140 292 762)
LEVEL 13, 255 PIIT STREET SYDNEY
T: 02 8270 8300 www.rpsgroup.com.au

RPS

5 Visual inspection and field results

In accordance with the Due Diligence Code, RPS undertook an inspection of the Project Area. RPS Heritage Manager Aly Howard and RPS Heritage Consultant Lucy Irwin conducted an inspection of the Project Area on 20th June 2018. The purpose of the inspection was to assess if Aboriginal sites or objects are present, or likely to be present, within the Project Area. The site inspection also aimed to relocate the previously recorded AHIMS site #45-3-3420.

The Project Area comprises 75 Warnervale Road, which is Lot 71 of Deposited Plan (DP) 7091. The Project Area is approximately 45,828 square metres, or approximately 325 metres by 144 metres. Visibility was nil to low across the majority of the Project Area due to vegetation and leaf litter. Discrete areas of increased visibility occurred, associated with areas of disturbance such as access tracks, landscaping and construction. The survey was limited to these areas of visibility.

To the north of the property are several structures and concrete paved areas, including a basketball court. It was noted in the course of the survey that it was likely that the basketball court has been partly excavated on the west side and built up on the east site to level off the ground surface (Plate 1). A landscaped area south of the basketball court was also inspected and found to have been landscaped in a similar fashion (Plate 2). A large majority of the site that had been subject to vegetation clearance had also undergone modifications relating to landscaping and water management activities. The area within the interior fence on the property currently in use as school grounds has been cleared, paved and landscaped (Plate 3). To the rear of the school is a large track that has been cleared of all vegetation (Plate 4).

The majority of the site was covered in low grasses or gravels, making both visibility and exposure low. Small discrete patches of exposure were noted in areas on the north and north-east of the property. These were inspected, but no artefactual material was identified. Where a wide track had been cleared to the rear of the structures, a large continuous area of exposure was noted. This exposure was inspected and was found to comprise largely of clay material, likely A2 horizon or below (Plate 5). Nil to very little remnant A1 horizon was located along this access track or in areas of exposure on the property. It was considered likely that these topsoils could have been cleared through machine activity or erosional processes due to the clearing of trees and vegetation, and its position on a low rise.

The south-east portion of the property comprised dense vegetation (Plate 6). Access was gained to this area where possible through the use of small walking tracks, though due to dense leaf litter and vegetation few areas of exposure or visibility were identified (Plate 7). Several boreholes location markers were noted along a walking track running diagonally from the south-east corner of the property to the north-east side of the Lot, though a lack of any depressions or mounds in the area indicate it is unlikely that boring has taken place.

Several immature eucalypts were located in a low-lying drainage channel (Plate 8). To the south of these eucalypts at the recorded location of OWP ISO 17 (AHIMS #45-3-3420) several small exposures were noted. These exposures were inspected in an effort to locate the single flaked artefact recorded at this location. The Aboriginal object could not be re-identified during the course of the survey (Plates 9 & 10).

No Aboriginal objects or areas of PAD were identified during the site inspection. No old growth trees suitable for cultural modification were identified.

Plate 1 Basketball court with landscape modification, facing south (RPS 2018)



Plate 2 Showing landscape modification to south of basketball court, facing east (RPS 2018)



Plate 3 Showing vegetation clearance behind structures, facing west (RPS 2018)



Plate 4 Large access track south of existing structures, facing south (RPS 2018)



Plate 5 Evidence of clay exposures, facing south (RPS 2018)



Plate 6 Dense scrub to east of property, facing east (RPS 2018)



Plate 7 Small areas of exposure along track, facing south (RPS 2018)



Plate 8 Immature eucalypts along drainage line, facing north (RPS 2018)



Plate 9 Location of AHIMS site #45-3-3420 facing north, scale 1 metre (RPS 2018)



Plate 10 Location of AHIMS site #45-3-3420 Scale 1.4 metres (RPS 2018)



6 Discussion

The site inspection identified a moderate degree of disturbance across the majority of the Project Area.

The Project Area is located within an area that is likely to have been close to swampland during the time of Aboriginal occupation. The level of disturbance on the property including landscaping, modification of drainage lines, the installation of concrete slabs on the property and the construction of an access track on which no A1 horizon appears to be extant indicates that it is highly unlikely that intact archaeological deposits would occur within these areas. Furthermore, a previous test excavation conducted by Extent directly to the rear of the property identified no archaeological material within test pits conducted immediately adjacent to the property line.

The area was inspected in accordance with the Due Diligence Code. The visual inspection did not identify any previously unrecorded Aboriginal sites or areas of PAD within the Project Area.

AHIMS site #45-3-3420 'OWP ISO 17' was unable to be located throughout the course of the survey. This may be due to several factors. It is possible that the artefact has either eroded with soil or been washed down the slight eastern slope towards the unnamed road on the adjacent property. More likely, the artefact was covered by the large amount of leaf litter present at the time of the inspection.

Under clause 80B Section 4 of the NPW Act land is considered to be disturbed if it has been the subject of human activity that has changed the land's surface, being changes that remain clear and observable.

These activities may be one of the following:

- c. Soil ploughing,
- d. Construction of rural infrastructure (such as dams and fencing),
- e. Construction of roads, trails and tracks (including fire trails, tracks and walking tracks),
- f. Clearing of vegetation,
- g. Construction of buildings and the erection of other structures,
- h. Construction or installation of utilities and other similar services (such as above or below ground electrical infrastructure, water or sewerage pipelines, stormwater drainage and other similar infrastructure),
- i. Substantial grazing involving the construction of rural infrastructure,
- j. Construction of earthworks associated with anything referred to in paragraphs (a) – (g)

In this case the Project Area has been impacted by items e, f and g. Therefore, the archaeological potential of the Project Area is considered to be nil to low.

7 Conclusion and recommendations

This report has considered the available environmental and archaeological information for the Project Area, the land condition, as well as, the nature of the proposed activities.

It was found that:

- The AHIMS search identified one Aboriginal object within the Project Area, #45-3-3420 'OWP ISO 17'.
- The visual inspection found that the Project Area had been subject to a moderate degree of disturbance as defined under 80B Section 4 of the NPW Act due to land modification.
- No previously unidentified Aboriginal objects were identified within the Project Area.
- No areas of Aboriginal archaeological potential were identified within the Project Area.

Based on the findings of this assessment the following recommendations are proposed;

Recommendation 1

The proposed works within the Project Area will impact on Aboriginal object OWP ISO 17 (#45-33420). Under the statutory requirements outlined in both the *Wyong Shire Development Control Plan 2013 Location Specific Development Provisions - Warnervale South* and the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, now OEH, 2010) an Aboriginal Cultural Heritage Assessment Report (ACHAR) and Aboriginal Cultural Heritage Management Plan (ACHMP) should be conducted for the site prior to the commencement of the proposed works.

Recommendation 2

RPS recommends that all relevant personnel, contractors and subcontractors undergo an Aboriginal cultural heritage induction. The induction would outline the legal obligations for Aboriginal cultural heritage under the *National Parks and Wildlife Act 1974* and *Heritage Act 1977*.

Recommendation 3

RPS recommends the due diligence report is kept so that it can be presented, if needed, as a defence from prosecution under Section 86 of the *National Parks and Wildlife Act 1974*.

Recommendation 4

If unrecorded Aboriginal objects are identified during the proposal, all activities within that area must cease and the area cordoned off. OEH must be notified by ringing the Enviroline on 131 555 so that it can be adequately assessed and managed.

Recommendation 5

In the event that human remains are identified, all activity within that area must cease immediately and the area cordoned off. The proponent must contact the local NSW Police, who will make an initial assessment as to whether the remains are archaeological. If the remains are determined to be Aboriginal, OEH must be notified on Enviroline on 131 555. An OEH officer will determine if the remains are Aboriginal or not. If the remains are identified as Aboriginal, a management plan must be developed in consultation with the Aboriginal community.

References

- Appleton, J (2004) Aboriginal heritage assessment for Landcom, Warnervale Town Centre, NSW
- Archaeological Surveys and Reports (2009) Archaeological Investigations for Indigenous Sites, Precinct 7A, Warnervale
- Clark N.R. and Jones D.C. (1991) Penrith 1:100 000 Geological Sheet 9030, 1st edition. Geological Survey of New South Wales, Sydney.
- Extent Heritage Advisors (2018) 15-41 Warnervale Road, Warnervale NSW Central Coast LGA – Rezoning and Redevelopment. Aboriginal Cultural Heritage Assessment Report
- Gosford-Lake Macquarie 1:100 000 Geological Sheets 9131 & 9231, Geological Survey of New South Wales, Sydney.
- Keith, D. (2007). Ocean Shores to Desert Dunes: The Native Vegetation of New South Wales and the ACT. Sydney, Department of Environment and Conservation (NSW).
- Kuskie, P and Webster, V (2003) Aboriginal heritage assessment and survey, Watanobbi to Warnervale, NSW
- Murphy, C. L & Tille, P. J. (Peter John), 1961- & New South Wales. Department of Conservation and Land Management & Murphy, C (1993), Soil landscapes of the Gosford-Lake Macquarie 1:100 000 sheet (Redhead, Wyong, Gosford, Spencer, Laguna), Dept. of Conservation and Land Management, Sydney
- RPS Harpers Somers O'Sullivan (2009) Aboriginal and European cultural heritage assessment, Somersby Falls Road, Somersby, NSW
- RPS Harpers Somers O'Sullivan (2009) Cultural heritage survey and assessment for Ramsgate Estate, Wyee Point, NSW

Appendix A

AHIMS Search

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : PR140375

Client Service ID : 349776

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
45-3-3653	WLR Artefact Scatter	GDA	56	354875	6319848	Open site	Valid	Artefact : -, Potential Archaeological Deposit (PAD) : -		
	<u>Contact</u>	<u>Recorders</u>	OzArk Environmental and Heritage Management,OzArk Environmental and Heritage Management							
45-3-3654	WRL Isolated Find	GDA	56	354558	6319178	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Mr.Ashley O'Sullivan							
45-3-4054	Warnervale Residential Artefact Scatter 1	GDA	56	355695	6319423	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Extent Heritage Pty Ltd - Waterloo,Doctor.Tessa Bryant							
45-3-4055	Warnervale Residential Isolated Find 1	GDA	56	355554	6319630	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Extent Heritage Pty Ltd - Waterloo,Doctor.Tessa Bryant							
45-3-3276	IF 1, Wyong	AGD	56	354770	6319410	Open site	Valid	Artefact : 1		
	<u>Contact</u> T Russell	<u>Recorders</u>	Rex Silcox							
45-3-3277	WS20/A	GDA	56	354426	6318971	Open site	Valid	Artefact : 2		102647
	<u>Contact</u> T Russell	<u>Recorders</u>	South East Archaeology,OzArk Environmental and Heritage Management,OzArk Environmental and Heritage Management							
45-3-3278	WS20/B	AGD	56	354400	6319010	Open site	Valid	Artefact : 1		102647
	<u>Contact</u> T Russell	<u>Recorders</u>	South East Archaeology							
45-3-3404	Bitova ISO 1	GDA	56	355488	6319239	Open site	Valid	Artefact : 1		101823
	<u>Contact</u>	<u>Recorders</u>	Mr.John Appleton							
45-3-3405	Bitova OS 2	GDA	56	355482	6319264	Open site	Valid	Artefact : 4		101823
	<u>Contact</u>	<u>Recorders</u>	Mr.John Appleton							
45-3-3406	Bitova ISO 3	GDA	56	355830	6319481	Open site	Valid	Artefact : 1		101823
	<u>Contact</u>	<u>Recorders</u>	Mr.John Appleton							
45-3-3407	Bitova OS 4	GDA	56	355761	6319510	Open site	Valid	Artefact : 40		101823
	<u>Contact</u>	<u>Recorders</u>	Mr.John Appleton							
45-3-3408	Bitova ISO 5	GDA	56	355490	6319291	Open site	Valid	Artefact : 1		101823
	<u>Contact</u>	<u>Recorders</u>	Mr.John Appleton							
45-3-3409	Bitova OS 6	GDA	56	355489	6319301	Open site	Valid	Artefact : 2		101823
	<u>Contact</u>	<u>Recorders</u>	Mr.John Appleton							
45-3-3410	Bitova OS 7	GDA	56	355509	6319327	Open site	Valid	Artefact : 11		101823
	<u>Contact</u>	<u>Recorders</u>	Mr.John Appleton							
45-3-3411	Bitova ISO 8	GDA	56	355687	6319543	Open site	Valid	Artefact : 1		101823
	<u>Contact</u>	<u>Recorders</u>	Mr.John Appleton							
45-3-3412	Bitova OS 9	GDA	56	355745	6319429	Open site	Valid	Artefact : 4		101823
	<u>Contact</u>	<u>Recorders</u>	Mr.John Appleton							
45-3-3413	Bitova OS 10	GDA	56	355767	6319460	Open site	Valid	Artefact : 18		101823

Report generated by AHIMS Web Service on 07/06/2018 for Lucy Irwin for the following area at Datum :GDA, Zone : 56, Eastings : 353736 - 358303, Northings : 6317904 - 6321831 with a Buffer of 0 meters. Additional Info : Due Diligence. Number of Aboriginal sites and Aboriginal objects found is 25

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

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : PR140375

Client Service ID : 349776

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-3-3414	Bitova ISO 11	GDA	56	355485	6319224	Open site	Valid	Artefact : 1		101823
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-3-3415	Lakes G ISO 12	GDA	56	354815	6320059	Open site	Valid	Artefact : 1		101823
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-3-3416	Lakes G OS 13	GDA	56	354570	6319567	Open site	Valid	Artefact : 14		101823
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-3-3417	Lakes G ISO 14	GDA	56	354578	6319306	Open site	Valid	Artefact : 1		101823
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-3-3418	Lakes G OS 15	GDA	56	354568	6319518	Open site	Valid	Artefact : 12		101823
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-3-3419	Lakes G ISO 16	GDA	56	354817	6319736	Open site	Valid	Artefact : 1		101823
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-3-3420	OWP ISO 17	GDA	56	356182	6320002	Open site	Valid	Artefact : 1		101823
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							
45-3-3421	OWP ISO 18	GDA	56	355427	6320658	Open site	Valid	Artefact : 1		101823
	<u>Contact</u>	<u>Recorders</u>	<u>Permits</u>							

Report generated by AHIMS Web Service on 07/06/2018 for Lucy Irwin for the following area at Datum :GDA, Zone : 56, Eastings : 353736 - 358303, Northings : 6317904 - 6321831 with a Buffer of 0 meters. Additional Info : Due Diligence. Number of Aboriginal sites and Aboriginal objects found is 25

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