

Aboriginal Cultural Heritage Due Diligence Assessment

LOT 1 DP106991 14 HAMILTON ROAD ALBION PARK NSW



Report Prepared for Landteam

LGA: Shellharbour

5th February 2019

Project Number:

Project File Name: Due Diligence Hamilton Road Albion Park

Revision	Date	Prepared by (name)	Reviewed by (name)
Draft	25/1/2019	Lyn O'Brien	Landteam
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EXECUTIVE SUMMARY

This report provides Aboriginal heritage due diligence advice for the proposed subdivision of Lot 1 DP1069961. The parcel of land is located at 14 Hamilton Road Albion Park NSW. The block currently has a single residential building and is used for agricultural grazing. The block covers an area of approximately 1.9ha. The project area is bounded by the Macquarie Rivulet on the north, Hamilton Road to the west and housing lots to the south. The project area is shown in a regional context on Figure 1, in detail on Figure 2 and the details of the proposed subdivision layout provided in Figure 3. This Due Diligence Aboriginal heritage assessment has been undertaken in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010a).

The proposal would involve the following impacts:

- Construction of an access road through the development
- Construction of housing foundations involving removal of top and subsoils
- Connection to infrastructure, such as water, communications and electricity
- Impacts from boundary fencing and landscaping

No Aboriginal heritage sites or areas of Potential Archaeological Deposit (PAD) were identified within the project area based on a review of previous reports. Field survey was undertaken across the project area in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b) and consisted of pedestrian transects across all landform with the participation of the Illawarra Local Aboriginal Land Council (LALC). Ground visibility was low at the time of field survey, with no heritage sites and no areas of potential archaeological deposit (PAD) identified within the project area, due to level of previous land disturbance.

As a result of the field survey and background research completed for the project, the following recommendations have been developed:

- No known heritage sites or areas of potential archaeological deposits are present within the project area.
- Following field survey and consultation with the Illawarra Local Aboriginal Land Council (ILALC), the area is assessed as holding low potential to contain unrecorded Aboriginal heritage sites.
- There are no known heritage constraints on the project.
- Further archaeological assessment would be required if the proposal activity extends beyond the area of the current investigation. This would include consultation with the ILALC and may include further field survey.
- Continued consultation with the Aboriginal community (through the ILALC) for the project should be undertaken. The ILALC should be informed of any major changes in project design or scope, further investigations or finds.

1 INTRODUCTION

This report provides Aboriginal heritage due diligence advice for the proposed subdivision of Lot 1 DP1069961. The parcel of land is located at 14 Hamilton Road Albion Park NSW. The block currently has a single residential building and is used for agricultural grazing. The block covers an area of approximately 1.9ha. The project area is bounded by the Macquarie Rivulet on the north, Hamilton Road to the west and housing lots to the south. The project area is shown in a regional context on Figure 1, in detail on Figure 2 and the details of the proposed subdivision layout provided in Figure 3. This Due Diligence Aboriginal heritage assessment has been undertaken in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010a).

The proposal would involve the following impacts:

- Construction of an access road through the development
- Construction of housing foundations involving removal of top and subsoils
- Connection to infrastructure, such as water, communications and electricity
- Impacts from boundary fencing and landscaping

These works are high impact and would have a negative impact on any Aboriginal heritage located within the project boundary. Aboriginal heritage sites may be located on the surface or subsurface in areas of high potential for the preservation of archaeological remains of past usage by Aboriginal groups.

To assess the potential impacts of the proposed works on Aboriginal heritage this Due Diligence Heritage Assessment has been undertaken.

This report, field survey and associated research has been conducted in accordance to the requirements of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (OEH 2010a) and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010b).

1.1 PROJECT OBJECTIVES

The following is a summary of the major objectives of the due diligence assessment:

- Identify Aboriginal objects and places known to exist within the Project Area through a search of the Aboriginal Heritage Information Management System (AHIMS) maintained by the Office of Environment and Heritage (OEH).
- Assessment of Landscape for landforms that may contain potential for unrecorded sites and to determine level of disturbance of landscape features.
- Undertake site visit to visually inspect areas identified for impact, or areas holding potential and to verify levels of disturbance. If registered sites (AHIMS) occur within the project area, record and assess condition.
- Complete due diligence report containing recommendations to minimise potential impacts to heritage values within the project area.

1.2 ABORIGINAL CONSULTATION

Consultation with the Aboriginal community is not a requirement of the Due Diligence Code. Consultation has been undertaken with the Illawarra LALC who participated in the field survey and provided input into management recommendations and significance of the area.

The significance of the area and the proposed subdivision was discussed with Aboriginal Representatives who did not know of any heritage constraints on the project area.

If impacts to Aboriginal heritage are found to occur as a result of the development then consultation will be undertaken with the LALC and the wider Aboriginal community as required by NSW Office of Environment and Heritage (2010c).



Figure 1: Regional Context

Legend

Study Area



1:30,000

0 0.375 0.75 1.5

Kilometers

Coordinate System:
GDA 1994 MGA Zone 56



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Figure 2: Study Area

Legend

-  Study Area
-  Lot



1:1,250

0 5 10 20 30 40

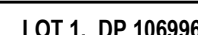

Meters

Coordinate System:
GDA 1994 MGA Zone 56

Imagery: © Nearmap

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Date:	Description:	Issue:	Notes:							
13.10.2017	DRAFT ISSUE	A	These drawings remain the executive copyright of Stiletto Homes. Reproductions in any form whether electronic, digital or otherwise shall not be allowed except by express permission granted in written by Stiletto Homes. Verify all dimensions on site and refer any discrepancies before proceeding with the works. These drawings are not to be scaled. Figured dimensions shall be used in all cases. This drawing is to be read in conjunction with other documentation in the drawing set.			Project : LOT 1, DP 1069961, HAMILTON ROAD, ALBION PARK, NSW				
22.11.2017	DRAFT ISSUE	B				Drawing Title: SITE PLAN				
24.11.2017	DRAFT ISSUE	C				Project No.: T2_2017_F06			Drawing No.: A02	
01.12.2017	DRAFT ISSUE	D				Date: DECEMBER 2017		Scale: 1 : 600	Sheet: A3	Issue: D

2 DESKTOP ASSESSMENT RESULTS

2.1 AHIMS SEARCH

A search of the OEH AHIMS database was undertaken in December 2018 and updated on the 25th January 2019 (Search ID394960) covering the 1km surrounding area centred on the project area. The extensive search revealed no previously recorded heritage sites within the project area and 3 sites within the wider search area. The majority of these sites are located valley flats near creek lines. The site search is attached at Appendix A.

The sites located in this area consist of isolated finds or small scatters of stone artefacts and conform to the wider site predictive model for the West Dapto/Tullimbar area (AMBS 2006, AHMS 2010, Ecological 2017). The recorded sites on AHIMS for the area are listed in Table 1.

The modelling for the area predicts small sites consisting of isolated or low numbers of artefacts located on level ground in proximity to water sources, increasing in frequency and density with higher order water bodies. Sites will also be located on level areas of spur lines and ridge crests, which provided travel routes through the landscape. A review of the AHIMS sites for the 1km centred on the study area showed the highest proportion of sites located on alluvial flats and lower slopes in association with creek lines.

This predictive model is discussed in more detail in Section 2.2. The location of previously recorded sites is shown in Figure 4.

Table 1. Listed AHIMS sites

Site ID	Site name	Datum	Zone	Easting	Northing	Context	Recorded by
52-5-0628	CP-S-02	GDA	56	294386	6173411	Artefacts scatter (6)	Austral Archaeology 2010
52-5-0789	YTOF AS 5	GDA	56	296501	6172002	Artefact scatter	Artefact Heritage 2014
52-5-0792	YTOF IF 4	GDA	56	296421	6172006	Isolated Find	Artefact Heritage 2015
52-5-0848	YTOF AS 9	GDA	56	295082	6173605	Isolated Find and PAD	Artefact Heritage 2015

Figure 4: AHIMS

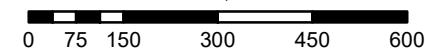


Legend

- ★ AHIMS Sites
- Study Area
- Lot



1:12,000



Meters

Coordinate System:
GDA 1994 MGA Zone 56

Imagery: © Nearmap

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2.2 PREVIOUS HERITAGE STUDIES

A number of heritage studies have been undertaken in the immediate area of Albion Park and Calderwood for residential subdivisions. These have been mainly small scale and development focused. Studies covering a larger area and generating models of occupation have been undertaken for the West Dapto and Illawarra Regions (AMBS 2006, AHMS 2010,). A review of this large body of work has been undertaken to provide context and site location modelling for the project area. The most relevant reports for the current project are summarised below.

2.2.1. Regional Context

Shellharbour Council commissioned a heritage study for the LGA (Navin Officer Heritage Consultants 2000) which highlighted the importance of the area to Aboriginal communities. The following predictive model of site location was developed:

Sites are likely to occur at varying densities in all broad topographic zones with areas of relatively level ground without significant surface rock, proximity to a freshwater source, and locally elevated and well drained ground holding high potential.

- Sites tend to be situated at or close to ecotones – the areas at which different environmental zones meet.
- The most common site type consists of artefact scatters which are most likely to occur on level, well drained ground, either adjacent to sources of freshwater and wetlands, or along the crests of spurs and ridgelines.
- Ridge and spur lines which afford effective through-access across, and relative to, the surrounding landscape will tend to contain more and larger sites.

Australian Museum Business Services (AMBS) undertook a large scale survey in 2006 for the West Dapto Release Area, followed by further work in 2010. 24 Aboriginal heritage sites were identified consisting of 13 artefact scatters, six isolated finds and five scarred trees. All landforms contained sites with the majority (12) on alluvial flats and lower slopes. Subsurface testing across all landforms consisted of 100 test pits and recovered 425 artefacts in total. A large site was identified on the hillslopes in which one testpit recovered 146 artefacts. This large site skewed the data, but when removed the most frequent occurrence was on the Alluvial flats, followed by creek line terraces. AMBS concluded that areas of highest potential included spur crests and foot slopes adjacent to major creek lines. These landforms would have provided camping sites or functioned as travel routes.

Archaeological and Heritage Management Solutions (AHMS) completed a wide ranging survey for residential developments along Bong Bong Road in west Dapto in 2010. The assessment identified three Aboriginal sites and concurred with the predictive model with elevated terraces on creek lines the highest potential landform.

Biosis (2011) completed a large scale survey for the Water and Wastewater servicing for the West Dapto Urban release area. The survey included consultation with a large number of Aboriginal stakeholders and survey of all pipeline corridors. A number of Aboriginal sites were identified along creeklines and ridgelines through the project area.

AHMS (2012) completed an assessment on Bong Bong Road in West Dapto. Areas of sensitivity along both sides of the creek line were identified and subjected to subsurface testing with the excavation of 75 test pits. High density deposits were identified amongst the eastern terrace.

2.2.2. Local Project area

A number of heritage assessments have been undertaken in the vicinity of the current project area for residential developments at Calderwood.

Austral Archaeology (Austral) completed an assessment for the Calderwood Urban Development Project Aboriginal Archaeological and Cultural Heritage Assessment (2010). The project area covered more than 700 ha. 34 sites were recorded and areas of ridge crests and creek lines noted as sensitive landforms.

KNC (2015) undertook the assessment of the wastewater servicing for the Calderwood Development Area. The project area included the floodplain of the Macquarie Rivulet which was considered archaeologically unsuitable due to flood disturbance. No sites or areas of PAD were identified.

Artefact Heritage (2014/2015) completed studies for the Albion Park Rail Bypass. A number of heritage sites were identified on raised landforms in proximity to tributary creeklines to the Macquarie Rivulet. The majority of these sites were detected by subsurface testing with no surface expression. Sites ranged from isolated finds to 872 artefacts (52-5-0848).

Ecological (2017) completed the assessment for the Calderwood Stage 3 Residential area. The assessment included field survey and subsurface testing of 5 areas of PAD. PADs were identified on lower slopes, creek banks, alluvial flats and ridgelines. The majority of artefacts were located on the lower slopes and alluvial flats mainly in transect D located on an alluvial terrace.

Artefact Heritage (2017) completed an assessment over 140-142 Calderwood Road Albion Park. This area is located directly opposite to the current project area on the northern bank of Macquarie Rivulet. This assessment located a number of sites consisting of small artefact scatters and isolated finds. These sites were located on level areas or gentle rises outside of the floodplain of the Macquarie Rivulet. No sites were located in floodplain contexts such as the current project area.

2.2.3. Predictive Model

AMBS 2006 and previous assessments completed provides the following summary for the Albion Park region:

- the majority of open artefact scatters are located near creek lines, particularly on reasonably level, elevated ground and low gradient basal slopes
- relatively large artefact scatters occur most frequently within 100-150m of major drainage lines, with a possible preference for creek confluences,
- artefact scatters occurring away from major creek lines tend to be small and sparse,
- artefact scatters commonly occur on major ridgelines which served to act as natural access routes,
- scarred trees may occur wherever old growth trees of sufficient age have survived (locally at least 140-150 years); and

Following on from these previous assessments in the area, the following predictive model has been developed for the project area (Table 3). The project area is limited in size and confined to alluvial flats.

This site prediction model is based on:

- Site distribution in relation to landscape features within the project area
- Consideration of site type and densities likely to be present within the project area

- Potential Aboriginal use of natural resources present or once present within the project area
- Opportunities for movement through the landscape
- Levels of previous disturbance.

Table 2 Site Prediction Model

Site Type	Definition	Potential to occur
Isolated finds and surface scatters of stone artefacts	Artefact sites can range from high density concentrations to sparse, low density 'background' scatters and single finds	Moderate – small scatters and isolated finds have been previously recorded near creek lines and spur crests. The Macquarie Rivulet is a major creek line and is placed on the northern border of the project area.
Rock Engravings	Motifs scratched or painted onto rock surfaces, usually within a rock shelter or overhang.	Nil: No such rock features are present within the project area.
Stone arrangements	Stone arrangements can include circles, lines and other patterns and usually mark ceremonial areas.	Nil: this is a rare site type, previous ploughing of the project area would have impacted this site type.
Stone quarries/Ochre sources	Raw materials for lithic artefacts and ochre are gathered from these sites. They are highly valued by the community.	Nil: There are no known ochre or stone quarries identified by previous studies.
Potential Archaeological Deposits (PADS)	Sub surface deposit of cultural material	High – aerial photos show alluvial flats with permanent water in area
Scarred Trees	Trees with cultural modifications over 150 year old.	Low: No remnant trees remain within the project area

3 SITE VISIT

A site visit and field survey of the project area was undertaken on the 14th January 2019 to verify the findings of the desktop review of landforms and disturbance. The survey consisted of a preliminary vehicle reconnaissance of the project area followed by a series of pedestrian transects. The survey was undertaken in accordance with the *Code of Practice for the Investigation of Aboriginal Objects in NSW* (DECCW 2010) and with the participation of the Illawarra LALC. The aim of the investigation was to identify heritage objects or places of potential archaeological Deposit (PAD). Based upon the background research, known Aboriginal site patterning, current aerial photography, and existing ground disturbances the proposed areas of development were inspected.

All surveyed areas and items of interest were recorded on a topographic map of the study area (using a GPS and GDA 94 coordinates), along with levels of visibility, erosion, soil conditions, and evidence of land disturbance.

The site visit resulted in the following findings.

3.1 LANDFORM ASSESSMENT

The study area consists of alluvial flats on the southern boundary of the Macquarie Rivulet. The area has been subject to ploughing and pastoral impacts in the past and has a current built residence.

Review of previous sites located in the vicinity indicates a site location model based on level areas (terraces) in proximity to water resources such as small creek lines or level areas along spur lines and ridge crests (AMBS 2006, AHMS 2010). Within the project area, the northern area on the southern bank of Macquarie Rivulet would appear to hold high archaeological sensitivity.

Based on landform modelling, the northern section of the project area is considered to hold a higher level of potential than the majority of the project area. This area was inspected for degree of disturbance and was assessed as having been subject to flooding events, ploughing or other ground disturbance. The potential for unrecorded sites to be present in a subsurface context is considered to be low.

3.1.1. Ground Surface Visibility

Ground surface visibility (GSV) is the percentage of ground surface that is visible during the field inspection. GSV increases in areas of exposures such as stock impact trails, roads, gates and along areas of erosion such as creek banks and dam walls. As a result surveys undertaken in areas with high exposure rates result in a more effective survey coverage.

GSV over most of the study area was very low (<5%) due to consistency of grass coverage across the project area. Exposures occurred at low frequency across the project areas consisting of vehicle impact trails and impacts at fence lines. At the time of the field survey no stock were present on the project area. The conditions at the time of the field survey are shown in plates 1 to 6.



Plate 1: Looking north to creekline across flats



**Plate 2. Looking west to Hamilton Road
(northern section)**



**Plate 3: Looking west to Hamilton Road
(southern section)**



Plate 4: looking North across project area



Plate 5:looking south



Plate 6: current residence

3.1.2. Disturbance

The degree of disturbance across the study area was moderate to high, particularly in the northern section. This disturbance took the form of regular undulations across the project area and displaced soils in confined areas. The area of the current dwelling has been entirely modified and across the remainder of the project area disturbance is also present in the form of prior vegetation and tree removal. Examples of disturbance are shown in Plates 7 and 8.



Plate 7: Disturbed areas (visible in grass length)



Plate 8: house site looking northwest

3.2 RESULTS - ABORIGINAL HERITAGE SITES

No areas of Aboriginal heritage were identified during the field survey though this may be a direct result of the low levels of GSV, low rate of exposures and high grass coverage. No known heritage sites will be affected by the proposed development.

3.3 RESULTS - AREAS OF POTENTIAL ARCHAEOLOGICAL DEPOSIT (PAD)

Areas of PAD are defined as landforms that hold higher potential than their surrounds to contain subsurface deposits of past Aboriginal occupation. Based on a review of previous studies completed for the region, areas of PAD would be located in association with waterways (1st or 2nd order streams) on level ground or along spur crest and ridge lines. Higher order streams are more likely to contain larger and more complex sites. The Macquarie Rivulet is a 5th order stream based on the Strahler classification system (1952) and the entire creek frontage is considered to be archaeologically sensitive.

Within the project area the Rivulet frontage is flood prone (Macquarie Rivulet Flood Study 2017) and these flooding events would have made the frontage not suitable for Aboriginal occupation, and would also have made preservation of any deposits unlikely.

In addition, back from the frontage, the landform appears to be regularly uneven indicating some form of land disturbance. Displaced soils are visible in the northern area.

As a result of the nature and prior disturbance of the project area, no areas of PAD have been identified by the field survey.

4 IMPACT ASSESSMENT

The impacts from the subdivision of Lot 1 DP1069961 (part) for residential development would be extensive across the project area and would involve impacts to topsoils, subsoils and vegetation removal in the area of the proposed development.

The project area contained one residence and the surrounding paddocks appear to have been ploughed in the past with clear areas of disturbed soils and displaced soil. The undulations across the area appear to be the results of this past use of the area. This level of disturbance appears higher closer to the north, but extends across all of the project area.

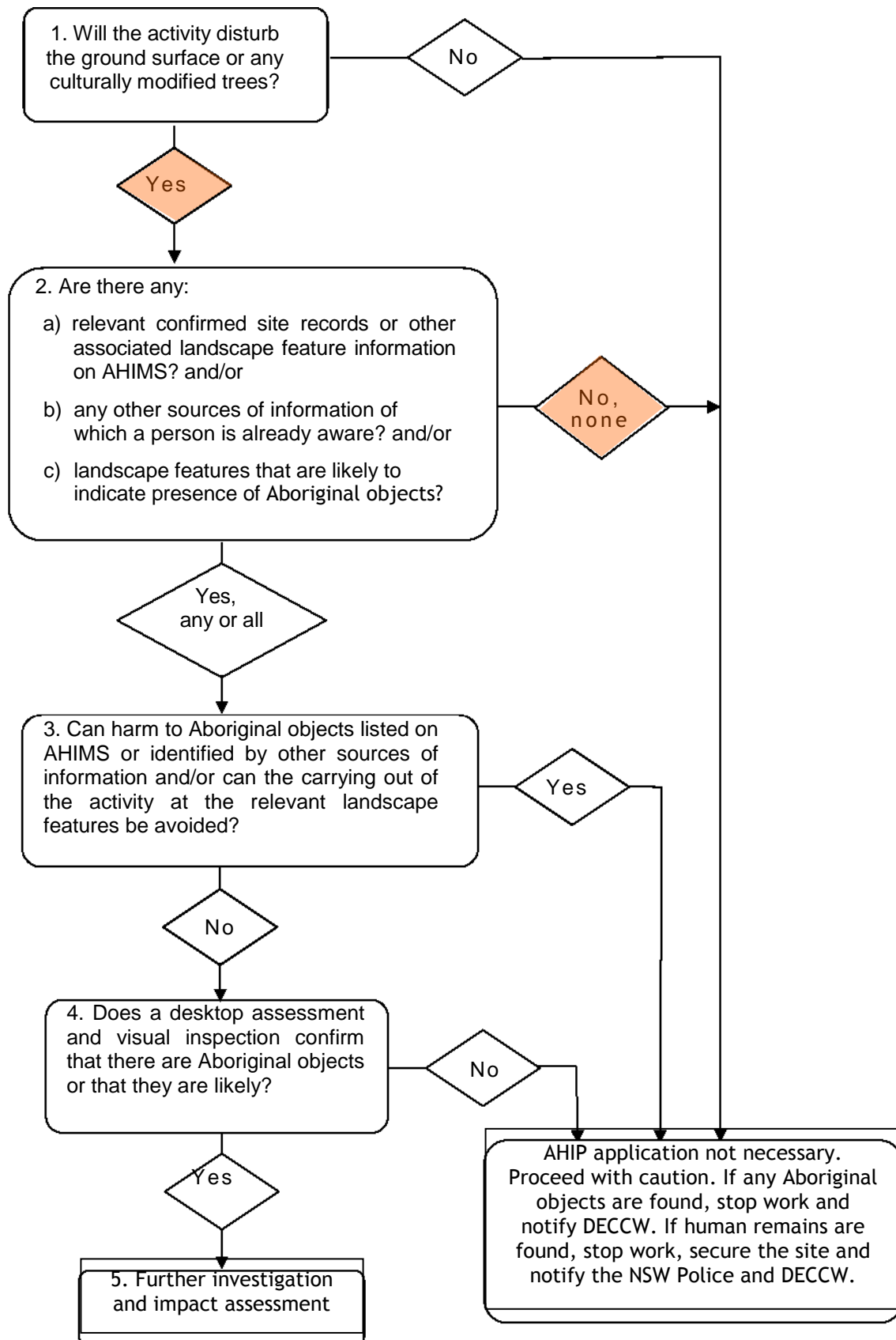
The project area has been assessed and no heritage sites were identified. The level flats proposed for the location of the access road and building envelopes are considered to hold low potential for subsurface deposits, due to the prior levels of disturbance.

Based on the assessment the impacts from the project are as follows:

- No known Aboriginal objects or places will be impacted by the proposed works.
- No known Aboriginal objects or places are present in the project area.
- The area is assessed to hold low potential for unrecorded Aboriginal heritage sites.

The Code provides a flowchart of six questions to identify the presence of and potential harm to Aboriginal heritage. These questions and their applicability to the project are shown in Figure 5. The responses to these questions determine if further heritage investigations are required.

Figure 5. Flowchart of Due Diligence process



4.1 RECOMMENDATIONS

Based on this due diligence assessment the following actions are recommended for the project.

- No known heritage sites or areas of potential archaeological deposits are present within the project area.
- Following field survey and consultation with the Illawarra Local Aboriginal Land Council (ILALC), the area is assessed as holding low potential to contain unrecorded Aboriginal heritage sites.
- There are no known heritage constraints on the project.
- Further archaeological assessment would be required if the proposal activity extends beyond the area of the current investigation. This would include consultation with the ILALC and may include further field survey.
- Continued consultation with the Aboriginal community (through the ILALC) for the project should be undertaken. The ILALC should be informed of any major changes in project design or scope, further investigations or finds.

5 REFERENCES

- Artefact Heritage. (2014). *Albion Park Rail Bypass PACHI Archaeological Test Excavation*. Report for RMS.
- Artefact Heritage. (2015). *Albion Park Rail Bypass PACHI Stage 3 Test Excavation Report*. Report to RMS.
- Artefact Heritage. (2017). *140-142 Calderwood Road Albion Park Aboriginal Cultural Heritage Assessment Report*. Report to C & P Tate Pty Ltd.
- Austral Archaeology. (2010). *Calderwood Urban Development Project Aboriginal Archaeological and Cultural Heritage Assessment Combined Desktop Assessment and Field Assessment Report*. Report for EcoLogical Australia Pty Ltd.
- Australian Museum Business Services. (2006). *West Dapto Release Area: Aboriginal Heritage Management Plan*. Report for Wollongong City Council.
- Australian Museum Business Services. (2010). *Preliminary Aboriginal and Historic Heritage Assessment: West Dapto Urban Release Area*. Report to Parson Brinckenhoff.
- Biosis. (2011). *Water and Wastewater Servicing West Dapto Urban Release Area and Adjacent Areas: Aboriginal Heritage Assessment*. Report for Sydney Water.
- DECCW. (2010). *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010*. . Sydney : DECCW.
- DECCW. (2010). *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* . Dept of Conservation, Climate Change and Water .
- DECCW. (2010). *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales*. Sydney: DECCW.
- EcoLogical Australia. (2017). *Calderwood Development Stage 3 Calderwood Road and North Macquarie Road North Macquarie*. Report for Lend Lease Communities.
- Kellegher Nightingal Consulting. (2015). *Calderwood Development Area Wastewater Servicing Stage 1 Aboriginal Heritage Due Diligence Assessment*. Report for GHD Pty Ltd.
- White, E and McDonald,J. (2010). *Lithic Artefact distribution in the Rouse Hill Development Area Cumberland Plain*. Australian Archaeology 70:29-38.

APPENDIX A - AHIMS SITE SEARCH

AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number : albion 1

Client Service ID : 394960

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
52-5-0628	CP-S-02	GDA	56	294386	6173411	Open site	Valid	Artefact : 6		
	Contact	Recorders	Mr.Leigh Bate					Permits		
52-5-0789	YTOF AS 5	GDA	56	296501	6172002	Open site	Valid	Artefact : -		
	Contact	Recorders	Artefact - Cultural Heritage Management ,Artefact - Cultural Heritage Management					Permits		
52-5-0792	YTOF IF 4	GDA	56	296421	6172006	Open site	Valid	Artefact : -		
	Contact	Recorders	Artefact - Cultural Heritage Management ,Ms.Alyce Howard					Permits		
52-5-0848	YTOF AS 9	GDA	56	295082	6173605	Open site	Valid	Artefact : 1, Potential Archaeological Deposit (PAD) : 1		103838
	Contact	Recorders	Artefact - Cultural Heritage Management ,Artefact - Cultural Heritage Management					Permits	4180	

Report generated by AHIMS Web Service on 25/01/2019 for Lyn O'Brien for the following area at Datum :GDA, Zone : 56, Eastings : 295375 - 295570, Northings : 6172552 - 6172726 with a Buffer of 1000 meters. Additional Info : impact assessment. Number of Aboriginal sites and Aboriginal objects found is 4

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.