

Cultural Heritage Assessment Property Report for lot size adjustments/sub-division

Aim

The aim of this cultural heritage assessment property report is to identify and record the Aboriginal cultural heritage sites on the property and provide recommendations for protection of these sites during lot size adjustments approval.

This document (and attachments) will:

- Identify whether or not Aboriginal objects are, or are likely to be, present in an area.
- Determine whether activities are likely to harm Aboriginal objects.
- Recommend actions to minimise and avoid harm to Aboriginal objects.
- Determine whether an Aboriginal Heritage Impact Permit (AHIP) is required.
- Meet the requirements of the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (DECCW 2010).

Property Details

Property Name: Lake Albert Heights

Property Address: Brunskill Rd, Mitchell Rd, Silverwood Rd and Birch Road, approximately 2km south of Wagga Wagga town centre.

Property Lot/DP: Are as followed

Table 1

Lot & DP	Street Address
Lot 17 DP 242227	2 Brunskill Road
Lot 18 DP 242227	4 Brunskill Road
Lot 1 DP 241596	6 Brunskill Road
Lot 2 DP 241596	8 Brunskill Road
Lot 3 DP 241596	10 Brunskill Road
Lot 1 DP 239050	222 Mitchell Road
Lot 2 DP 239050	232 Mitchell Road
Lot 3 DP 239050	240 Mitchell Road
Lot 4 DP 239050	244 Mitchell Road
Lot 5 DP 239050	252 Mitchell Road
Lot 6 DP 239050	262 Mitchell Road
Lot 7 DP 239050	274 Mitchell Road
Lot 8 DP 239050	1A Silverwood Road
Lot 15 DP 242227	3 Silverwood Road (no access)
Lot 16 DP 242227	1 Silverwood Road
Lot 17 DP 242904	7 Birch Road (no access)
Lot 18 DP 242904	5 Birch Road (no access)
Lot 19 DP 242904	3 Birch Road
Lot 20 DP 242904	1 Birch Road

Owner and/or Manager Name: Privately own residential properties and agricultural lands

Date of Assessment: 20/04/2019

Assessors Name: Peter Ingram.

Methodology

Cultural heritage assessment property surveys were conducted using the following method:

- Pedestrian transects ground survey of the properties, with more detailed investigation on landforms likely to contain Aboriginal objects.

Results

AHIMS search results

AHIMS search results indicate 1 registered sites near the properties. AHIMS search results are included in [Attachment 1](#) of this report.

The Survey Area

The Survey Area encompasses all areas within the lot size adjustment areas, where future residential development and ground disturbance work is proposed with new road upgrades required. Standard archaeological field survey and recording methods were employed in this survey. The entirety of the study area was assessed by pedestrian transects. The surveyors were spaced approximately 50m apart. All mature, native trees within the field survey area or in the vicinity of the study area, and with the potential to contain Aboriginal scarring, were inspected. Included in [Attachment 3](#) of this report.

The Survey Area has been previously disturbed by repeated cultivation. Trees present within the Survey Area are limited to trees which have been planted and some remnant mature vegetation within the road corridors of Brunskill Road, Mitchell Road, Silverwood Road and Birch Road. Drainage lines in the Survey Area have been impacted in parts by the construction of dams and storm water channels.

Land–Use History and Existing Disturbance

Disturbance, historical or natural, potentially alters the archaeological record. It can do this in a variety of ways, directly or indirectly. For example, land clearing directly removes a particular site type: usually scarred trees or stone arrangements. Indirectly, land clearing accelerates soil erosion, potentially resulting in previously buried occupation / activity sites becoming exposed and altered / damaged.

The Survey Area has high levels of disturbance mostly consisting of impacts related to the area's agricultural use. Disturbances across the study area are summarised below:

- Agriculture and Pastoralism. Farming and grazing are fundamental to the local economy and dominate land-use throughout the area. The Survey Area is wholly contained within farming and grazing land, which has had the following impacts:
 - Vegetation removal. The Survey Area has been subject to significant levels of vegetation removal. Culturally modified trees may have been removed during the land clearance phase in the area, thereby distorting the archaeological landscape by removing this site type;

- Cultivation. The entirety of the Survey Area has been subjected to cultivation. Repeated cultivation since the commencement of European settlement will have altered soil profiles and potentially disturbed any potential subsurface archaeological deposits. Research into the impacts upon archaeological sites as a result of agricultural practices, termed plough zone archaeology, has demonstrated that artefacts can move in excess of 8m per season of cultivation.
 - Grazing. The Survey Area has been used historically for low-intensity livestock grazing and is currently grazed by sheep, cattle and horses. The presence of hooved livestock is likely to have resulted in trampling and compaction of the ground surface, which accelerates soil loss; and
 - Farm infrastructure and remediation works. The Survey Area has an overall low level of disturbance generated by the construction of dams, contour banks, agricultural buildings and fencing. Earthworks associated with contour banking and dams can reveal lithic artefacts which may have been otherwise concealed by low ground surface visibility (GSV).
- Transport. In the Survey Area sections of road are sealed, however, they are graded with imported fill. A limited number of farm tracks also intersect the Survey Area. In the case of unsealed tracks, this disturbance tends to provide exposures, thus enabling the identification of otherwise obscured artefacts.
 - Erosion. Erosion includes sometimes severe gully erosion and widespread sheet wash erosion, primarily adjacent to waterways. Varying scales of erosion on the archaeological landscape has the capacity to completely remove archaeological sites. However, in the process of erosion, many archaeological sites can become freshly exposed.

Conclusion

The flat landforms which dominate the Survey Area would not have been an impediment to movement or occupation (camping) in the past. However, occupation of this area in antiquity by Aboriginal people would most likely have been limited to transient inhabitation resulting from movement across the landscape to other areas which provide more stable resources, such as water provided by creek lines and the Murrumbidgee River.

Geology: Landforms which typically comprise outcropping rock i.e. hills and ridges, are not present within the Survey Area and therefore no sources of stone procurement for tool manufacture have been identified.

The following table provides a summary of all Aboriginal cultural heritage sites found during this survey and previous assessments on the property.

Table 2

Site name / Map label (AHIMS ID)	Site type	Easting	Northing	Comments
56-1-0483	Modified Tree	0536614	6108282	Scar tree with old canoe scar

Due Diligence legislation now applies. Attention is drawn to the following section of the legislation:

<http://www.legislation.nsw.gov.au/viewtop/inforce/act+203+1979+first+0+N>

The results of these are listed in **Table 3**.

A field component was also completed as part of the study between February and June 2002. This was carried out on 10 separate days within this period with public lands (roadside reserves) mainly being sampled. The survey recorded 30 Aboriginal sites including 28 scarred trees, one artefact scatter and one Aboriginal ceremonial and Dreaming site.

Table 3:

Report/survey date	Name, location/reason	Completed by	Results/comments
1980	Gas pipeline, Wagga Wagga to Young	Witter	14 camp sites 1 scarred tree Rock well?
1980	Bucks Creek (Harefield) Salvage	Kelly	310 Artefacts Primarily Quartz
1983	Powerline, Wagga Wagga to Darlington Point	Hiscock	9 scarred trees 13 artefacts
1986	Water Supply line, - S.W. Tablelands. Wagga Wagga to Ungarie	Silcox	52 artefacts, most small pieces of quartz
1987	Old Man Creek, Galore	Klaver	112 earth mounds
1992	Gredadoo Waste Disposal	Navin	26 artefact scatters and/or isolated finds 4 earth mounds
1992	Navy Communication Facility, Collingullie	Wood	14 earth mounds 14 scarred trees 10 hearths, some in association with mounds or artefact scatters 8 artefact scatters
1993	Water Supply line, - S.W. Tablelands. Wagga Wagga to Ungarie, Part 2	Silcox	135 artefacts, mostly small quartz artefacts
1994	Fibre Optical Cable Routes, Currawarna	Hamm	1 artefact scatter
1995/1998	Wagga Wagga to Wodonga, Natural gas Pipeline	Navin and Officer	46 artefact scatters 19 isolated finds 1 scarred tree
1997	Bomen Abattoir	Everett	1 isolated find
1998	Bomen Power Plant	Navin and Officer	1 quarry and axe manufacturing site (est. 500 artefacts) 2 isolated finds
1900s	Kapooka Military Area	Dearling and Evans	92 artefacts, primarily quartz
2001	Murrumbidgee Province Study - over 3 million hectares, Western Riverina	Pardoe and Martin	918 sites analysed (potentially 920,000 sites or features estimated)
2002	Lloyd Suburban Extension Wagga Wagga	Navin and Officer	4 artefact scatters 1 scarred tree

Recommendations

Recommendations for this property include:

- *Revegetation of native trees and shrubs along proposed roads.*
- *Establish vegetation to be encompassed in the subdivision and future residential development.*
- *Newly found items should be inspected and registered in AHIMS.*
- *If a burial site is unearthed during land preparation for road construction, contact police and Aboriginal community immediately. This should focus on raised landforms (particularly terraces and any sandy landforms)*

Land management activities which may impact on cultural heritage sites at this property are:

- Construction of infrastructure
- Construction of earthworks
- Works for tree establishment

However, the following recommendations provide some guidance on appropriate protective measures for identified cultural heritage sites.

Table 1: Appropriate protective measures for different site types

Site types	Recommended Protective Measures
Stone artefacts, shell midden, hearth, earthen mound	<ul style="list-style-type: none"> • Do not break earth within 10 meters around known sites, especially where there is surface evidence of artefacts, shell, charcoal or ochre. • If a site is identified within a proposed works area, then consider alternatives for the location of the proposed works, to avoid impact to the site. • Vehicles or heavy equipment must not be used on or within these sites unless a path exists that will not damage the site. • Vegetation which is screening the site must not be damaged. • There must be no slashing of vegetation, no tree removal, and no use of earthmoving equipment such as bulldozers within 10 metres of the site. • If using fire for hazard reduction ensure that a Bush Fire Hazard Reduction Certificate is obtained and that conditions relating to the artefact are followed.
Modified tree	<ul style="list-style-type: none"> • Do not use excavation equipment or break the earth within the root zone or drip line of the tree, as this may destabilise the tree or damage the root system. • Protective fencing may occasionally be required to be installed around a tree to prevent stock damage to the tree. Ensure the fencing doesn't impact the root system of the tree. • Prior to hazard reduction loose leaf litter and low ground cover is to be manually cleared by raking for 10 metres around the tree of concern. • Trees of concern are to be protected during hazard reduction. For example, dampen earth around tree to be protected, and minimise risk of ember attack. • If using fire for hazard reduction ensure that a Bush Fire Hazard Reduction Certificate is obtained and that conditions relating to the tree are followed.

Site types	Recommended Protective Measures
	<ul style="list-style-type: none"> • Trees of concern must be examined as soon as possible after the passage of the fire and embers that might cause the tree to burn must be extinguished.
Rock arrangement, stone quarry grinding grooves, fish traps	<ul style="list-style-type: none"> • During hazard reduction (specifically burning), loose leaf litter must be carefully removed from rock platforms. • If using fire for hazard reduction ensure that a Bush Fire Hazard Reduction Certificate is obtained and that conditions relating to the site are followed. • Heavy equipment (including vehicles) must not be used on rock platforms, or within 10 metres of sites unless there is an existing road available for use. • Do not move loose stones, especially where they have been already grouped or arranged. • Heavy machinery is not to be used in these areas or adjacent to these types of sites. • Do not drive vehicles or use heavy equipment within these sites unless a path exists that will not damage the site. • Vegetation which is screening the site must not be damaged. • There must be no slashing of vegetation, no tree removal, and no use of earthmoving equipment such as bulldozers within 10 metres of these sites.
Rock art	<ul style="list-style-type: none"> • During hazard reduction (specifically burning), loose leaf litter must be carefully removed from rock platforms. • If using fire for hazard reduction place the control lines well away from the site. • Heavy equipment (including vehicles) must not be used on rock platforms, or within 10 metres of sites unless there is an existing road available for use. • If using fire for hazard reduction ensure that a Bush Fire Hazard Reduction Certificate is obtained and that conditions relating to the tree are followed. • If burning, rake loose leaf litter away from vegetation in the vicinity of the site if smoke is likely to impact upon rock art. • No use of chemicals or other retardants within 20 metres of art sites. If windy the distance is to be extended to 50 metres • Vegetation which is screening the site must not be damaged. • There must be no slashing of vegetation, no tree removal, and no use of earthmoving equipment such as bulldozers within 10 metres of these sites.

If possible human skeletal remains are located (and they are not a registered burial site (on AHIMS) then the Police must be called (000) and the immediate location cordoned off and treated as a crime scene, until advised otherwise.

Sign off

Prepared by	Reviewed and approved by	Date
Peter INGRAM		15 June 2019

References

<http://www.environment.nsw.gov.au/resources/cultureheritage/ddcop/10798ddcop.pdf>

<http://www.legislation.nsw.gov.au/viewtop/inforce/act+203+1979+first+0+N>

<http://www.environment.nsw.gov.au/resources/cultureheritage/120558asirf.pdf>

<http://www.environment.nsw.gov.au/index.htm>

Final Report

Attachment 1 – AHIMS Search Results



AHIMS Web Services (AWS) Search Result

Purchase Order/Reference : lake albert highs

Client Service ID : 409815

Peter Ingram
 1 Marama Pbe
 Wagga Wagga New South Wales 2650
 Attention: Peter Ingram
 Email: wiradjuriengineeringservices@outlook.com

Date: 25 March 2019

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lat, Long From : -35.1734, 147.3905 - Lat, Long To : -35.1637, 147.4057 with a Buffer of 50 meters, conducted by Peter Ingram on 25 March 2019.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

1	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *



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

Your Ref/PO Number : lake albert highs

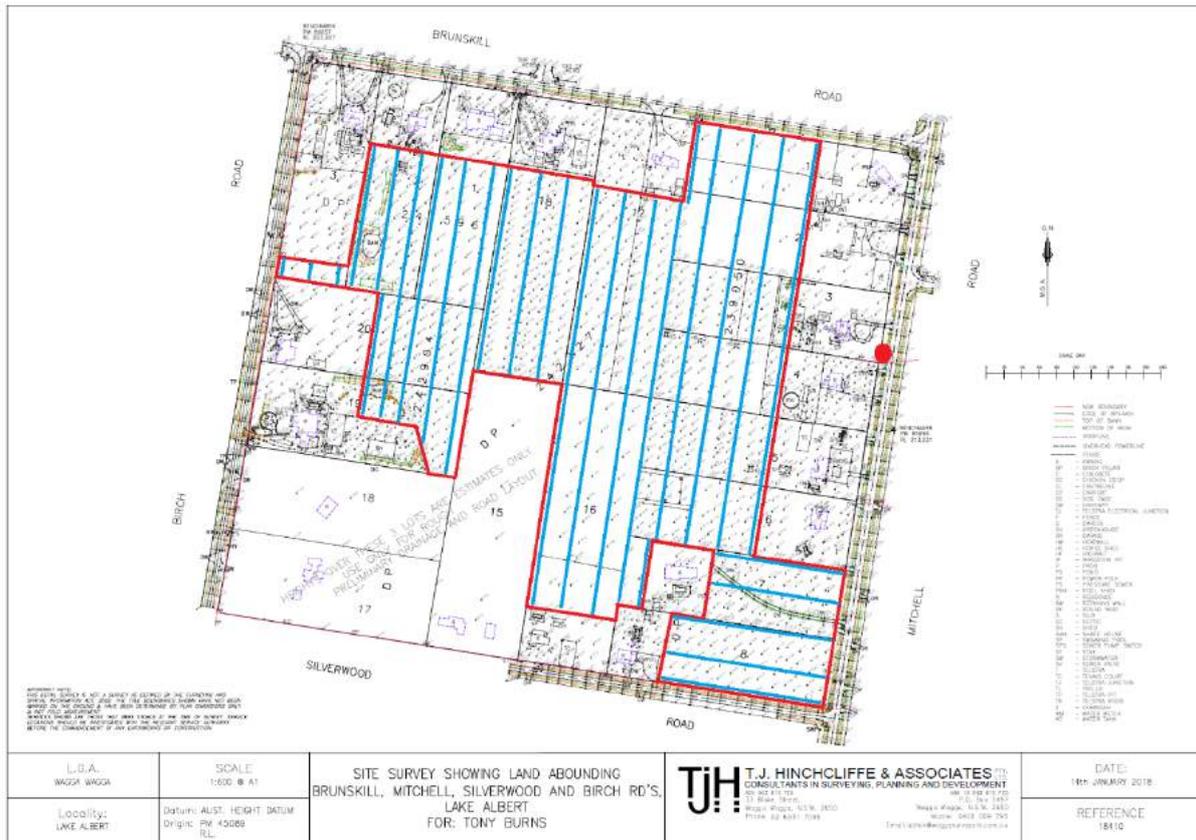
Client Service ID : 409815

SiteID	SiteName	Datum	Zone	Easting	Northing	Context	Site Status	SiteFeatures	SiteTypes	Reports
56-1-0483	Mitchell Rd 240 Canoe Tree	GDA	55	536614	6108202	Open site	Valid	Modified Tree (Carved or Scarred) :		
	Contact		Recorders	Mr.Mark Saddler				Permits		

Attachment 2. Site Map



Attachment 3 – Cultural Heritage Assessment Pedestrian Transects Map



- Cultural Heritage Assessment Survey Area.
- Cultural Heritage Assessment Pedestrian Transects.
- **AHIMS Site.**