Aboriginal Objects Due Diligence Assessment Warrah Ridge Road and Inverkip Road Warrah Ridge, NSW

Liverpool Plains Local Government Area

Prepared for PSA Consulting on behalf of Pace Farm Pty Ltd | 29 May 2023



A leading independent specialist environmental and heritage consultancy





22 March 2023

Pace Farm Pty Ltd C/- PSA Consulting Pty Ltd PO Box 10824 Adelaide Street BRISBANE QLD 4000

Via email: david@psaconsult.com.au

Dear Mr Ireland,

Re: Warrah Ridge Free Range Egg Farm – Warrah Ridge Road and Inverkip Road, Warrah Ridge, NSW - Aboriginal Objects Due Diligence Assessment (Niche Ref: #7861)

This assessment confirmed that the Activity Area is within 200 m of a known waterway which constitutes a landscape feature with elevated archaeological potential. However, the previous ground disturbances associated with vegetation removal and historical agricultural use identified during the desktop and visual field inspection assessment across the Activity Area demonstrated significant topsoil disturbance and therefore decreased the likelihood for Aboriginal archaeological material to be retained within the landscape. Where the activity is proposed within these disturbed environments, an AHIP will therefore not be required. In addition, although Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100) is located within the Activity Area, this site can be avoided by the proposed works. The following recommendations have been made:

Table 1: Recommendations

Recommendations 1. Temporary high visibility fencing must be erected around the recorded location Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100) prior to any construction works proceeding. This barrier should cover a 20 m radius from the base of the tree. The recorded location, plus 20 m buffer, should be identified as a "no go zone" on all construction and management plans as well as all induction materials. Once the temporary fencing has been constructed two georeferenced photos of the constructed temporary fencing are to be sent to a qualified Niche heritage consultant for approval prior to work commencing. All works and machinery (including vehicle access) must avoid this area at all times. 2. A site card must be submitted for AHIMS site Warrah Ridge Scar Tree 1 as per the visual inspection findings. 3. Works may proceed with caution, following the implementation and approval of Recommendation 4. If impacts are proposed to the "no go zone" (Warrah Ridge Scar Tree 1 (AHIMS ID# 29-5-0100) or the proposed development footprint is altered, then further archaeological assessment, likely in the form of an Aboriginal Cultural Heritage Assessment (ACHA) with Aboriginal community consultation, will be required. These will be used to inform an Aboriginal Heritage Impact Permit (AHIP) to allow harm to the site.





Recommendations

	Generals
5.	All workers should be inducted into the Activity Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior to and during and after construction activities. This includes being informed of the location of site Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100) in the Activity Area.
6.	 The following Unexpected Finds Procedure must be adhered to as a minimum response in the event of the identification of artefacts within the Activity Area during proposed works or before an ACHA can commence: Work in the surrounding area is to stop immediately. A temporary fence is to be erected around the Aboriginal cultural heritage site, with a buffer zone of at least 10 metres around the known edge of the Aboriginal cultural heritage site. An appropriately qualified archaeological consultant is to be engaged to identify the material; and Should the material be confirmed as an Aboriginal object or archaeological site, facilitate, in cooperation with the appropriate authorities and the local Aboriginal community: The recording and assessment of the finds. Compliance with any legal requirements and Heritage NSW directions. The development and implementation of appropriate management strategies based on an assessment of the significance of the finds. The recommencement of ground disturbance works may only resume once legal requirements are fulfilled. An Aboriginal Heritage Impact Permit (AHIP) will be required.
7.	 In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and: The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm. The NSW Police must be contacted immediately. No further action is to be undertaken until the NSW Police provide written notification to the Proponent. If the skeletal remains are identified as Aboriginal, the Proponent or their agent must contact: Heritage NSW's Enviroline on 131 555; and representatives of the RAPs. No works are to continue until Heritage NSW provides written notification to the proponent or their Agent.

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

Yours sincerely,

Chelsea Freeman Heritage Consultant

Niche Environment and Heritage



Table of Contents

1	Intro	duction	1
	1.1	The Proponent	1
	1.2	The Activity Area	1
	1.3	The proposed activity	1
	1.4	Statutory controls	1
	1.5	Objectives	2
	1.6	Assessment methodology	2
2	Envir	onmental context	6
	2.1	Topography, landforms, and hydrology	6
	2.2	Geology and soils	6
	2.3	Vegetation	6
	2.4	Past land use and disturbance	7
3	Abor	ginal objects due diligence assessment	12
	Is the	proposed activity a low-impact activity as defined by the Regulation?	12
	Step	1 – Will the activity disturb the ground surface or any culturally modified trees?	12
	•	2a – Are there any relevant confirmed site records or other associated landscape feature mation on AHIMS (or other heritage registers)?	12
	Step	2b – Are there any other sources of information of which a person is already aware?	13
	Step	2c - Are there landscape features that are likely to indicate the presence of Aboriginal Objects	s? 15
	Step	3 - Can the harm or the activity be avoided?	15
		4 - Does a desktop assessment and visual inspection confirm that there are Aboriginal Objects hey are likely?	
	Warr	ah Ridge Scar Tree 1 (AHIMS ID#29-5-0100)	20
	Step	5 - Further investigations and impact assessment	23
4	Conc	usions and recommendations	24
5	Refer	ences	26
Apı	oendix	A – AHIMS extensive search	27
Apı	endix	B – Site cards	28



List of Figures

Figure 1: Location of Activity Area within regional context (Source: Proponent and Niche)
Figure 2: Activity Area (Source: Proponent and Niche)4
Figure 3: Previously recorded heritage items in or near the Activity Area (Source: AHIMS and Niche) 8
Figure 4: Soil landscapes within the Activity Area and surrounds (Source: Niche, DPIE, E spade)
Figure 5a: Historical aerial imagery of the Activity Area (1984-1990) (Source: Niche, DPIE, E spade) 10
Figure 5b: Historical aerial imagery of the Activity Area (1953-1964) (Source: Niche, DPIE, E spade) 11
Figure 6: Survey of Activity Area (Source: Niche, DPIE)
List of Plates
Plate 1: The due diligence assessment process5
Plate 2: Western boundary of Activity Area, regrowth/historical planted Eucalypt single tree line along the boundary, facing north
Plate 3: Ploughed field, view from western boundary facing east
Plate 4: Sandstone and conglomerate mudstone are more frequent at lower hill slopes along the eastern boundary
Plate 5: location of sandstone and conglomerate mudstone at the lower hill slope along the eastern boundary
Plate 6: Eastern boundary of Activity Area, facing north
Plate 7: Ploughed field, view from Eastern boundary facing west
Plate 8: Overview of the Activity Area, facing northwest
Plate 9: Soil section that has been quarried for agricultural use. The section shows the soil profile of the south-western hill crest within the Activity Area. The section shows soil that is consistent with those found on lower hill slopes and flats in Activity Area. From base, profile shows brittle sandstone sediment with a thin layer of basalt material. Sandstone, clay/silt layer, red soil with alluvial pebbles, eroding sandstone and large conglomerate ironstone pieces with quartz inclusions
Plate 10: Quarry site on a hilltop in the southeastern section of the Activity Area
Plate 11: Stand of young trees and regrowth with native and introduced grasses and weed understory, located on a hilltop in the south-eastern corner of the Activity Area. Minimal visibility or exposures 19
Plate 12: Dam central to Activity Area with an old windmill. Table drains surrounding the dam for water direction, facing east.



Plate 13: Windmill associated with the dam in Activity Area, facing south	. 19
Plate 14: Water trough with sandstone rocks on the surface. Most likely from subsurface materials overturned during construction, facing north	. 20
Plate 15: Close-up of overturned sandstone surrounding the water trough	. 20
Plate 16: Recently ploughed paddock at the centre of southern fence line hill crest. Quartz pebbles of different colours and sizes dominate the soil profile on the hill crest and hillslope, facing north	. 20
Plate 17: Old stand of paddock trees at southwest boundary corner.	. 20
Plate 18: Aboriginal cultural heritage site Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100) in landscape, facing southwest.	. 21
Plate 19: Close up of elongated cultural scar on Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100), facing southwest.	. 21
Plate 20: Healed regrowth at base of cultural scar on Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100), facing southwest.	. 21
Plate 21: A naturally occurring scar at base of Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100), likely occurred due to tearing, facing northeast.	. 21
List of Tables	
Table 1: Recommendations	i
Table 2: Summary of AHIMS site features within the AHIMS Search Area	. 13
Table 3: Summary of AHIMS site features within the AHIMS Search Area	. 13
Table 4: Previous heritage assessments nearby the Activity Area	. 14
Table 5: Recommendations	. 24



1 Introduction

1.1 The Proponent

Niche Environment and Heritage Pty Ltd (Niche) was commissioned by PSA Consulting on behalf of Pace Farms (the Proponent) to undertake an Aboriginal Objects Due Diligence Assessment (DD) to inform a Development Application (DA) for the construction of a free range layer farm (farm 1095) at Warrah Ridge, New South Wales (NSW) (Figure 1) (hereafter referred to as the 'Activity Area').

1.2 The Activity Area

1.2.1 Location

The Activity Area is located at the south-eastern corner of the intersection of Inverkip Road and Warrah Ridge Road, in the suburb of Warrah Ridge, NSW. The Activity Area is situated north of the present township of Warrah Ridge, in the County of Buckland and Parish of Warrah. The Activity Area covers an area of approximately 179 hectares (ha) and is primarily composed of cleared areas that have been utilised for agricultural purposes. The character of the area is predominately rural, and cleared agricultural land as depicted in Figure 2. The Activity Area is situated within the Liverpool Plains Local Government Area (LGA) and within the boundary of the Nungaroo Local Aboriginal Land Council (LALC) and bordering the Walhallow LALC. It includes the following properties:

- Lot 171 DP751033
- Lot 170 DP751033
- Lot 1 DP576340
- Lot 52 DP1168698.

1.3 The proposed activity

The Proponent is seeking to submit a DA for the proposed construction of a free range layer farm and associated infrastructure in the Activity Area. The works will involve the construction of eight (8) 31,000 bird free range layer sheds, two (2) packing sheds, surrounding free range paddocks, a farm manager residence and access tracks. The proposed works in the Activity Area comprise of:

- 1. Direct impacts are limited to the sheds, packing sheds, farm manager's residence, immediate surrounds and access roads.
- 2. Free-range paddocks will be retained in their current state with no clearing or works proposed.
- 3. The range areas will be fenced with a wire mesh fence to stop foxes etc getting into the paddocks.

Figure 1 shows the location of the Activity Area in a regional context while Figure 2 illustrates the location of the proposed activity.

1.4 Statutory controls

The *National Parks and Wildlife Act 1974* (NPW Act), administered by Heritage NSW, is the primary legislation for the protection of some aspects of Aboriginal cultural heritage in NSW¹. Part 6 of the NPW Act provides specific protection for Aboriginal objects and declared Aboriginal places by establishing offences of harm.

¹ For further information visit: https://www.environment.nsw.gov.au/licences/achregulation.htm



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

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

1.5 Objectives

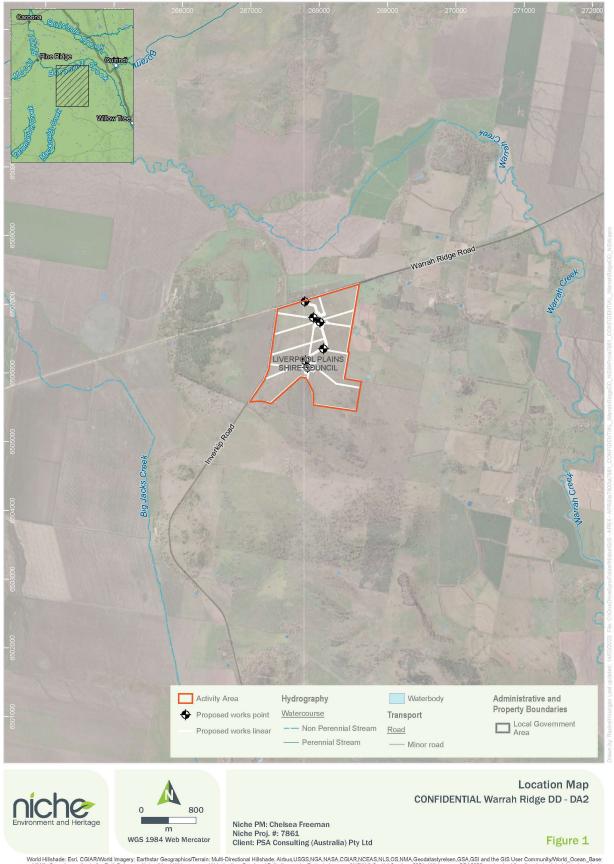
The aim of the assessment was to assess whether Aboriginal objects and/or places are present, or are likely to occur within, or near the Activity Area, if those Aboriginal objects and/or places may be harmed by the proposed works, and if further investigation is required.

1.6 Assessment methodology

This DD follows the process outlined in Plate 1.



Figure 1: Location of Activity Area within regional context (Source: Proponent and Niche)



World Hillshade: Esri, CGIAR/World Imagery: Earthstar Geographics/Terrain: Multi-Directional Hillshade: Airbus, USGS NGA NASA, CGIAR NCEAS NLS.OS NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community/World. Ocean_Base: NIWA, GeosciencesAustralia, Esri, DeLorme, Natural/Vue | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1884 Web Mercator Auxiliary Sphere is used in the map above. For ease of reference, the grid lick marks and labels shown around MGA zone.



Figure 2: Activity Area (Source: Proponent and Niche)



World Imagery: Maxar/Terrain: Multi-Directional Hillshade. Airbus, USGS, NGA, NASA, CGIAR NCEAS, NLS, OS, NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WOS1984 Web Mercator with the professor of the map are presented in GDA2020, using the relevant MGA zone.



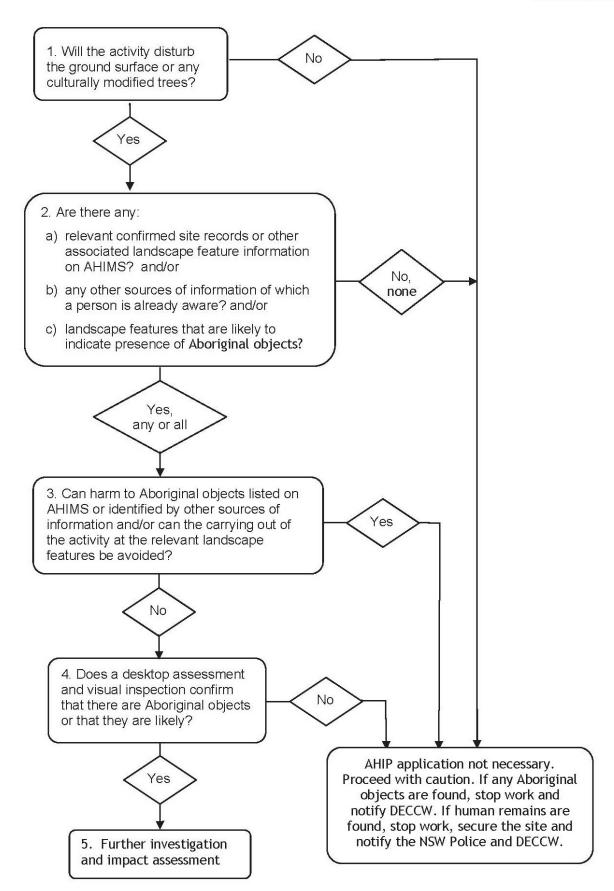


Plate 1: The due diligence assessment process



2 Environmental context

2.1 Topography, landforms, and hydrology

The Activity Area is located southwest of the township of Quirindi, NSW, and is situated in the Liverpool Plains LGA within the North West Slopes region of NSW (Figure 1 and Figure 2). The Activity Area is comprised primarily of rural properties with some bushland present and other areas that have been cleared of vegetation. The Activity Area consists generally of long foot slopes with broad drainage plains of undulating hills and hills of sandy alluvium. With slopes ranging from 1-7% with the length of 250-25000 m long the area is characterised by long foot slopes (Department of Planning, 2022). The topography of the Activity Area implies the terrain to be easily traversed and provided accessibility to areas for camping and access to water sources.

2.2 Geology and soils

The geology of the Activity Area consists of Triassic Digby Conglomerate of the Narrabeen Group (Rdc) and Quaternary Alluvium derived from Digby Conglomerated and Tertiary basalt from the Liverpool Range Beds (Tl) (Figure 4) (Department of Planning, 2022). The soil landscape of the Activity Area is comprised of the Goscombes Road soil landscape (9034go). The mid to upper slopes of the Activity Area consists of moderately well to well-drained, deep Red Dermosols and Chromosols (Red Podzolic Soils) and Orthic Tenosols (Red Earths). The lower foot slopes and the upper drainage plains are characterised by soil forming on polymictic conglomerates, sandstone and mudstone. Soils in the lower foot slopes consist of imperfectly to poorly drained, deep Red Vertosols (Red Clays) and poorly drained, deep Grey Sodosols (Soloths) and Grey Chromosols (Grey Podzolic Soils). The lower drainage lines and alluvial plains are characterised by soils developed from alluvial material and consist of Grey Vertosols (Grey Clays). The footslope and drainage channels that define the Goscombes Road soil landscape have resulted in moderate sheet to minor to moderate gully erosion (Department of Planning, 2022). The presence of alluvial material and gully erosion can lead to post depositional movement of archaeological material, reducing the likelihood of in situ deposition material.

The Goscombes Road soil landscape can consist of highly variable soils, depending on the range of the parent material in the catchment. This variability affects the soil fertility, with its capacity to hold nutrients ranging from low to very high, and the power of hydrogen (pH) ranges of the soils, ranging from moderately acidic to mildly alkaline. Such soil landscapes are commonly used for grazing on native and improved pastures, with cropping on areas of better soil (Department of Planning, 2022). The high level of acidity has the potential to reduce the likelihood of organic archaeological material from the soil.

2.3 Vegetation

Common species of diverse woodland and open woodland predominate the Goscombes Road soil landscape prior to 90% of vegetation being cleared for grazing purposes. Dominant tree and shrub species present are *Eucalyptus populnea* (poplar box), *E. crebra* (narrow-leaved ironbark), *E. sideroxylon* (mugga), *E. blakelyi* (Blakely's red gum), *E. melliodora* (yellow box), *E. moluccana* (grey box), *E. microcarpa* (grey box), *Callitris glaucophylla* (white cypress pine), *Angophora floribunda* (rough-barked apple), *Brachychiton populneus* (kurrajong) and *Notelaea microcarpa* (native olive). Dominant ground cover species present are *Aristida spp.* (wire grasses), *Stipa aristiglumis* (plains grass), *S. spp.* (spear grasses), *S. verticillata* (slender bamboo grass), *Danthonia spp.* (wallaby grasses), *Bothriochloa macra* (red leg grass) and *Cymbopogon refractus* (barbed-wire grass) (Department of Planning, 2022).



The majority of vegetation described within the Goscombes Road soil landscape consist of the Genus Eucalyptus. Eucalyptus have been utilised by Aboriginal people for several economic and medicinal purposes. Medicinal use of Eucalyptus includes the utilisation of oil-bearing leaves to relieve colds, headaches, backaches and fevers, and utilisation of the gum for sores and abrasions or boiled in water and used as a wash. As a food resources, certain species of Eucalyptus allow for the consumption of seeds, bark from young roots, nectar, galls, wild honey and manna. Other economic uses include the utilisation of wood for tool making and other implements such as dishes and bowls. Eucalypt bark is used to make shelters and canoes, it can also be fashioned into fishing lines, nets and baskets (Stewart and Percival 1997).

The natural vegetation that occurs within the Activity Area has been exposed to extensive modification and land clearing due to agricultural activities, including grazing and cropping that have occurred there in the past and occur currently. Various cleared tracks are visible on the ground surface. However, despite clearing, mature trees are present within the Activity Area.

2.4 Past land use and disturbance

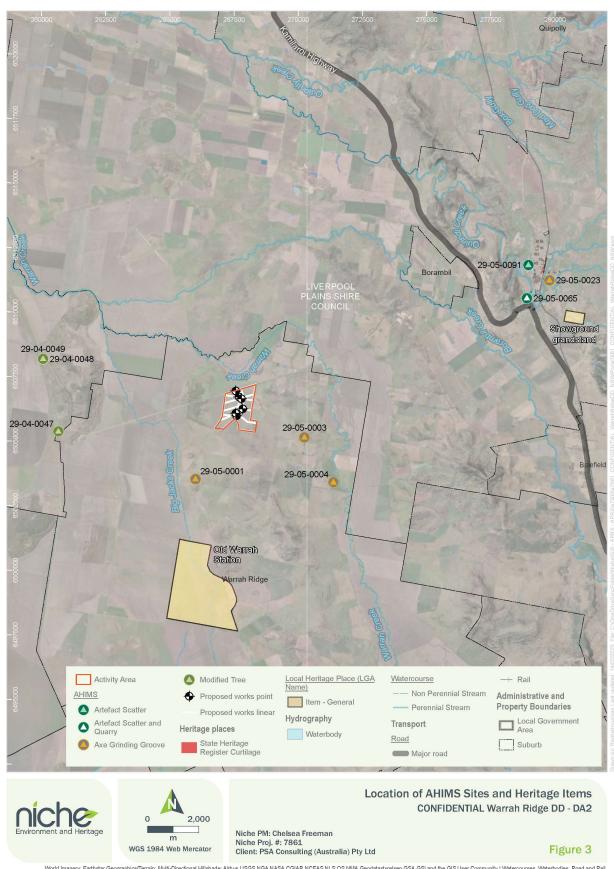
The Activity Area is located with the traditional lands occupied by the Kamilaroi people, speakers of the Gamilaraay language, directly north of the intersection of the traditional lands occupied by the Geawegal people speakers of the Gaewegal language (Tindale 1974). Tindale (1974) in his 1938-40 survey of the geographic span of Aboriginal groups in Australia identified the Kamilaroi people as occupying southwestern Queensland, through the Warrumbungle Mountains to headwaters of the hunter river in the Upper Hunter region of NSW. The local population of Kamilaroi would have been well supplied with various food resources from the rich environment of the local area, including hunting animals of the plains and gathering and processing vegetables (Tindale 1974).

Initial European occupation into the Upper Hunter and Liverpool Plains area was facilitated by Benjamin Singleton and John Howe in 1818 and 1821. After the discovery of grazing land, the following decades saw an influx of hundreds of settlers take up crown land grants in the Hunter Valley, Liverpool Plains and beyond. The settlement of the Liverpool Plains for agricultural purposes saw the restriction of land access and resources for Aboriginal people, the introduction of western disease and the dispossession of traditional lands from the Kamiliaroi. By the mid to late 19th Century many Aboriginal people in the area were displaced, finding residence on government reserves in the area such as Caroona near Quirindi or at St Clair reserve (later, 1905 St Clair Mission) between Singleton and Carrowbrook (Nolan 2012).

The overall landscape context of the Activity Area provides a picture of a landscape that has been significantly disturbed by historical land-clearing practices since European settlement. Aerial imagery can provide further information about previous land use and impact on the ground surface within the Activity Area. A review of historical aerial imagery shows that the Activity Area has been subjected to heavy disturbance prior to 1953 (Figure 5b). Much of the native vegetation has been cleared due to historical land use.



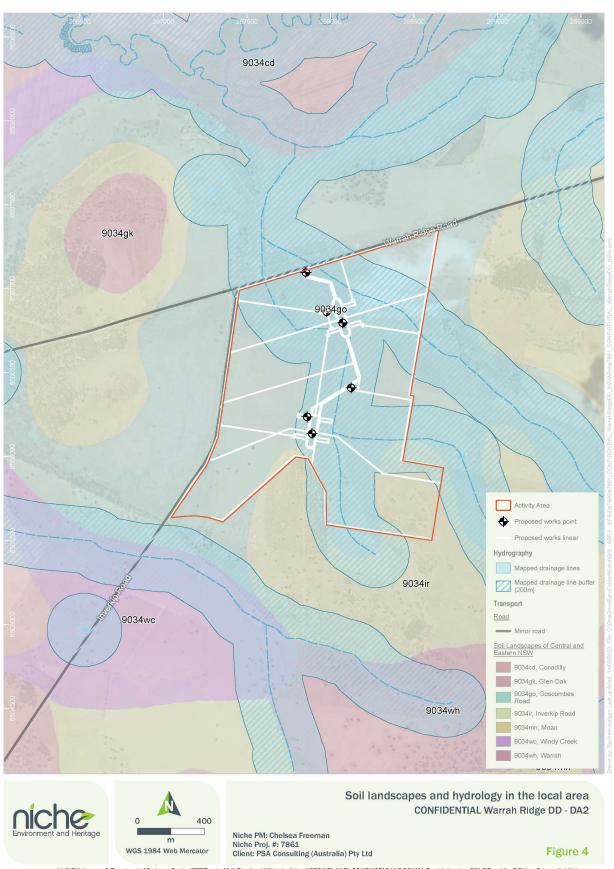
Figure 3: Previously recorded heritage items in or near the Activity Area (Source: AHIMS and Niche)



World Imagery: Earthstar Geographics/Terrain: Multi-Directional Hillshade: Airbus, USGS.NGA.NASA, CGIAR.NCEAS.NLS,OS.NMA.Geodatastyrelsen, GSA, GSI and the GIS User Community | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW© Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WAS1984 Web Mercator Availables, possible 10 SDA2020, using the relevant MGA zone.



Figure 4: Soil landscapes within the Activity Area and surrounds (Source: Niche, DPIE, E spade)



publio/NSW_Imagery; © Department of Customer Service 2020/Terrain: Multi-Directional Hillshade: Airbus, USGS.NGA.NASA, CGIAR.NCEAS.NLS.OS.NMA.Geodatastyrelsen, GSA,GSI and the GIS User Community | Waterocurses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Ninhe uses GDA/2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to two StarS984 Web Mercard Auxiliary Sphere is used in the map above. For ease of reference rease of reference and tables! shown around the border of the map are presented in GDA/2020, using the relative and tables! shown around the border of the map are presented in SDA/2020, using the relative and tables! shown around the border of the map are presented in SDA/2020, using the relative and tables! shown around the border of the map are presented in SDA/2020, using the relative and tables! shown around the border of the map are presented in SDA/2020, using the relative and tables! shown around the border of the map are presented in SDA/2020, using the relative and tables! shown around the border of the map are presented in SDA/2020, using the relative and tables! shown around the border of the map are presented in SDA/2020, using the relative and tables! shown around the border of the map are presented in SDA/2020, using the relative and tables! shown around the border of the map are presented in SDA/2020, using the relative and tables!



Figure 5a: Historical aerial imagery of the Activity Area (1984-1990) (Source: Niche, DPIE, E spade)

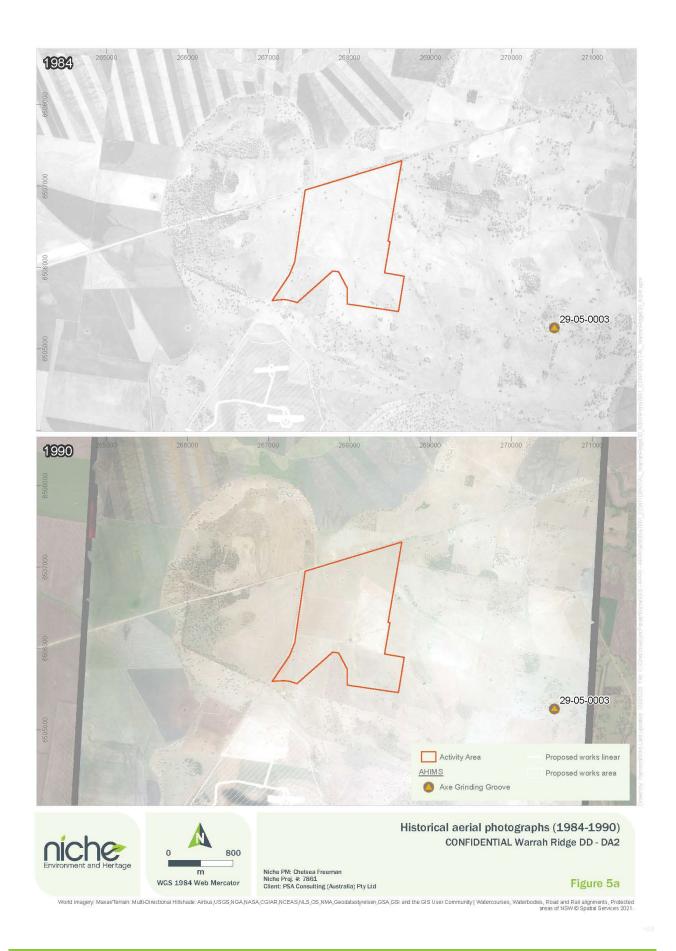
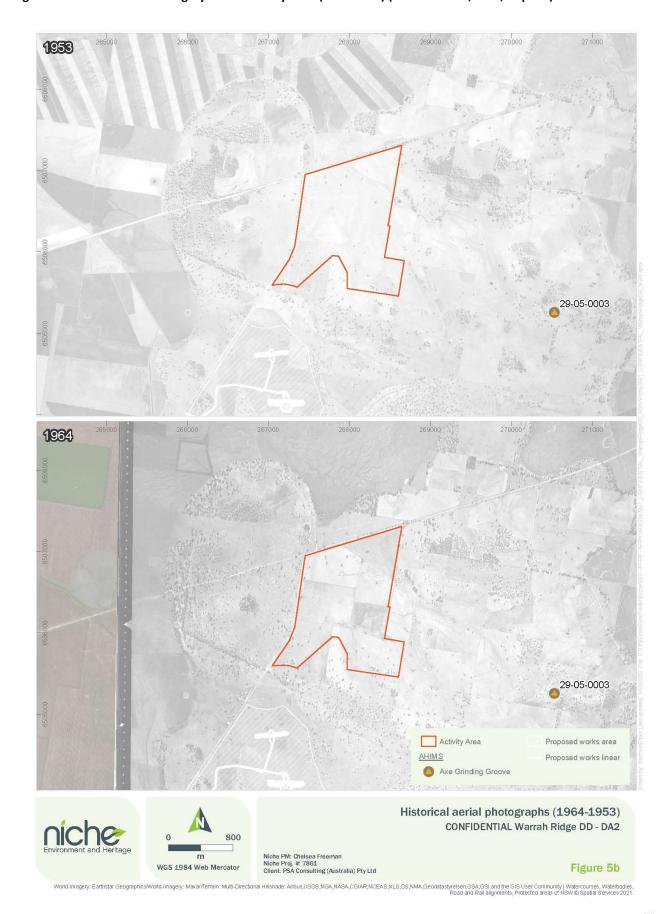




Figure 6b: Historical aerial imagery of the Activity Area (1953-1964) (Source: Niche, DPIE, E spade)





3 Aboriginal objects due diligence assessment

Is the proposed activity a low-impact activity as defined by the Regulation? No.

The activity is not a low-impact activity as defined under Part 5 Division 2 Section 58 of the *National Parks* and *Wildlife Regulation 2019* ('the Regulation') because:

- It involves earthworks associated with the construction of eight (8) rearing sheds with surrounding free-range paddocks, two packing sheds, and a farm manager residence.
- It involves associated impacts on the immediate surroundings and access roads.

Step 1 – Will the activity disturb the ground surface or any culturally modified trees? Yes

The proposed works will involve earthworks and ground disturbance associated with the construction of the eight (8) rearing sheds and surrounding free-range paddocks, two (2) packing sheds, a farm manager residence, and access roads. No previously recorded culturally modified trees will be harmed by the proposed activity.

Step 2a – Are there any relevant confirmed site records or other associated landscape feature information on AHIMS (or other heritage registers)?

No. There are no confirmed site records within the Activity Area, but there are a number of sites recorded within the broader landscape as well as one Aboriginal Place.

Heritage registers

AHIMS

An extensive search of the Aboriginal Heritage Information Management System (AHIMS) was conducted on 25 January 2023 (AHIMS Client Service ID# 748163) for the following area at Lat, Long From: -31.6497, 150.4441 - Lat, Long To: -31.5034, 150.6913., centred on the Activity Area. See Attachment 1 for details of the search and Aboriginal cultural heritage sites within the search area.

Nine (9) Aboriginal cultural heritage sites are located within the AHIMS search area (Appendix A and Table 2), but none are located within the Activity Area (Figure 3). The closest Aboriginal cultural heritage sites are Warrah Ridge (AHIMS ID# 29-5-0001), Waverton; Watagarra Station) and Boxwood; Bonny Ridge; Colly Plains (AHIMS ID# 29-5-0004), all located with 3.5km of the Activity Area. All three sites are identified by AHIMS as Grinding Groove sites. These Aboriginal cultural heritage sites will not be impacted by the proposal.

Within the wider search area, Grinding Grooves (n=4) and Modified Tree (Carved or Scarred) (n=3) were the most common Aboriginal site features documents on the AHIMS register (Table 2). Artefact and Ochre Quarry site (n=1) and artefact scatters (n=1) were the next most common site types. It must be noted that care should be taken when using the AHIMS database to reach conclusions about site prevalence or distribution. The distribution of registered sites does not reflect patterns of occupation, but rather is often indicative of survey coverage and conditions.



Table 2: Summary of AHIMS site features within the AHIMS Search Area

Site features	Total
Grinding Groove	4
Modified Tree (Carved or Scarred)	3
Artefact Scatter	1
Artefact (s) and Ochre Quarry	1
Total	9

Aboriginal Heritage Impact Permit

A search was conducted of the Department of Planning, Industry and Environment (DPIE) AHIP register on 21 February 2023, covering the 2010-2023 period. It was determined that no AHIP has been registered within the current Activity Area and immediate surrounds.

Other heritage registers

Searches of the Australian World Heritage Database, the Commonwealth Heritage List, the National Heritage List, the State Heritage Register, the State Heritage Inventory, the Liverpool Plains Local Environmental Plan (LEP) (2011) and the Liverpool Plains Development Control Plan (DCP) were conducted on 21 February 2023. The result of these searches is summarised in Table 3 below.

Table 3: Summary of AHIMS site features within the AHIMS Search Area

Heritage Rrgister	Heritage Item in the Activity Area	Nearby heritage item
World Heritage List	None	None
National Heritage List	None	None
Commonwealth Heritage List	None	None
State Heritage Register	None	Windy Station Woolshed East Warrah Woolshed
State Heritage Inventory	None	Windy Station Woolshed East Warrah Woolshed
Liverpool Plains Local Environmental Plan 2011	None	Old Warrah Station (I106)Abbotsleigh Group (I081)
Development Control Plan	None	None

The searches concluded that there are no recorded historic or Aboriginal heritage items within the Activity Area, though several sites occur within proximity. The closest local heritage listed site is the Old Warrah Station Underground Water Tank (Footrot Flat) which is located approximately 6000 m southwest of the Activity Area along Warrah Ridge Road. The site is listed in the Liverpool Plains LEP (2011) as having local heritage significance.

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



Previous heritage assessments within or relevant to the Activity Area

No previous heritage assessments have been undertaken directly within the Activity Area; however, several have been undertaken in relation to development applications in the vicinity of the Activity Area.

The heritage assessments presented in Table 4 have occurred nearby to the Activity Area.

Table 4: Previous heritage assessments nearby the Activity Area

Author and Date	Title	Relevance to Activity Area		
Niche (2022)	Aboriginal Objects Due Diligence Assessment Addendum	Niche undertook additional fieldwork as an addendum to the initial Aboriginal Objects Due Diligence Assessment for a potential layer farm site at Warrah Ridge (Niche, 2020). Additional fieldwork was undertaken due to a redesign by the Proponent, increasing the likelihood of harm to the site Warrah Ridge (AHIMS ID#29-5-0001). During the additional field survey, AHIMS site Warrah Ridge (AHIMS ID# 29-5-0001) was ground truthed through GPS coordinates and visually inspected. However, due to minimal Ground Surface Visibility (GSV), the original recorded grinding grooves were unable to be clearly identified. It is likely that the AHIMS site Warrah Ridge (AHIMS ID#29-5-0001), was registered with incorrect coordinates related to its original recording in 1947 and updated recording in 1987. The assessment confirmed that additional Aboriginal objects are unlikely to be present due to significant agricultural disturbances within the Activity Area.		
Niche (2020)	Aboriginal Objects Due Diligence Assessment	Niche undertook an Aboriginal Objects DD Assessment for a potential layer farm site at Warrah Ridge. The field survey focused on the proposed disturbance footprint based on existing infrastructure plans. The report confirmed that Aboriginal objects are unlikely due to significant agricultural disturbances within the Activity Area and AHIMS site Warrah Ridge (AHIMS ID#29-5-0001) will not be impacted by the proposed works in the Activity Area.		
Niche (2020)	Aboriginal Objects Due Diligence Assessment Warrah Ridge Farm 1	Niche Environment and Heritage undertook an Aboriginal Objects DD Assessment to support a Local DA for the construction of two rearing sheds located in Lot 391 DP 556635. The field survey focused on the proposed disturbance footprint based on existing infrastructure plans. This assessment confirmed that Aboriginal objects were unlikely due to significant disturbances within the area and the fact that no Aboriginal sites or features were identified within the area		



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

Yes

Based on the findings of the desktop assessment above (Section 2, Steps 2a and 2b) and the observations made during a site inspection (Step 4), the Activity Area contains the following landscape features that are likely to indicate the presence of Aboriginal objects, as identified by the *Due Diligence Code of Practice*:

• Within 200m of waters.

The majority of the Activity Area is located within 200 m of non-perennial tributaries of Warrah Creek. The closest permanent water source to the Activity Area includes Warrah Creek, a perennial stream that is located to the north of the Activity Area. These landscape features represent areas with an elevated likelihood for Aboriginal cultural material to occur. However, the Activity Area is disturbed as it has been subjected to human activity that has altered the lands surface, including vegetation clearance and ploughing. Therefore, despite the Activity Area being located within a sensitive landscape, the potential to disturb Aboriginal objects is considered low.

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

No.

The proposed activity will involve earthworks within an area associated with an archaeologically sensitive landscape feature (i.e. within 200 m of waters), however, the potential to disturb Aboriginal objects is considered low as the Activity Area is disturbed. This disturbance can be attributed to extensive clearing of vegetation and continuous farming practices within the Activity Area (ploughing), as visible in historical imagery of the area (Figure 5) and confirmed during a site inspection (See Step 4). Historical imagery demonstrates a constant clearance of vegetation and constant agricultural use of the Activity Area from 1953 (Figure 5). This assessment indicates that *in situ* Archaeological deposits are unlikely to occur within the Activity Area due to the high degree of disturbance and as such, there is no compelling reason to move or avoid the activity.

Although, there is one recorded Aboriginal cultural heritage site within the Activity Area, Warrah Ridge Scarred Tree 1 (AHIMS ID#29-5-0100) (See Step 4), the proposed works will not impact the Aboriginal cultural heritage site.

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

Yes.

Based on the desktop assessment above (Section 2, Steps 2a and 2b) and an assessment of the landscape features and level of past disturbance associated with the Activity Area, the entire Activity Area is associated with an archaeologically sensitive landscape feature (i.e., within 200 m of water). Therefore, the requirement for a visual inspection of the Activity Area was required.

A site inspection was conducted by Niche heritage consultant, Rebecca Chalker on 21 February 2023. The inspection involved walking over the Activity Area and inspecting the ground surface for the Aboriginal objects. The site inspection identified the majority of the Activity Area had been subjected to historical vegetation clearing, ploughing and vegetable cropping on the flats, lower and mid slopes (Plate 2 - Plate 3, Plate 6 - Plate 8, Plate 16). Recent soil ploughing, evident in Plate 3, demonstrates disturbance within the



Activity Area. Within the recently ploughed Activity Area, alluvial topsoils were observed with alluvial pebbles of rolled quartz, mudstone, ironstone and sandstone inclusions also noted (Plate 4 - Plate 5). Further disturbance to the Activity Area was noted in the quarried soil in the south-eastern corner of the Activity Area. The quarry site demonstrated disturbance for agricultural use, as evident by the star pickets laying nearby the quarry site (Plate 10). Quarrying of soil demonstrates the soil profile in the Activity Area and subsequently identified as shallow and disturbed and unlikely to have the potential for subsurface archaeological material (Plate 9 - Plate 10).





Plate 2: Western boundary of Activity Area, regrowth/historical planted Eucalypt single tree line along the boundary, facing north.



Plate 3: Ploughed field, view from western boundary facing east.



Plate 4: Sandstone and conglomerate mudstone are more frequent at lower hill slopes along the eastern boundary.



Plate 5: location of sandstone and conglomerate mudstone at the lower hill slope along the eastern boundary.





Plate 6: Eastern boundary of Activity Area, facing north.



Plate 7: Ploughed field, view from Eastern boundary facing west.



Plate 8: Overview of the Activity Area, facing northwest.



Plate 9: Soil section that has been quarried for agricultural use. The section shows the soil profile of the south-western hill crest within the Activity Area. The section shows soil that is consistent with those found on lower hill slopes and flats in Activity Area. From base, profile shows brittle sandstone sediment with a thin layer of basalt material. Sandstone, clay/silt layer, red soil with alluvial pebbles, eroding sandstone and large conglomerate ironstone pieces with quartz inclusions.





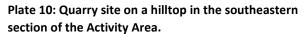




Plate 11: Stand of young trees and regrowth with native and introduced grasses and weed understory, located on a hilltop in the south-eastern corner of the Activity Area. Minimal visibility or exposures.



Plate 12: Dam central to Activity Area with an old windmill. Table drains surrounding the dam for water direction, facing east.



Plate 13: Windmill associated with the dam in Activity Area, facing south.







Plate 14: Water trough with sandstone rocks on the surface. Most likely from subsurface materials overturned during construction, facing north.

Plate 15: Close-up of overturned sandstone surrounding the water trough.



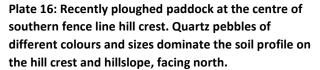




Plate 17: Old stand of paddock trees at southwest boundary corner.

Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100)

One Aboriginal cultural heritage site, Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100) was identified and recorded in the northern portion of the Activity Area. Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100), was recorded approximately 150 m south of Warrah Ridge Road and 530 m east of Inverkip Road (GDA 94 Zone 56 Easting 268010, Northing 6507035). The site comprises a 20 m high culturally scarred tree of an unknown species, with a north-easterly-facing elongated scar (Scar 1, 125 cm long, 10 cm wide, 40 cm overgrowth and 95 cm above ground). The cultural scar is a continuous oval shape with apparent even regrowth around the perimeter which suggests scarring is consistent with aboriginal scarring morphology. However, regrowth has healed over the scar making this difficult to observe. No axe were marks recorded. Minimal evidence any branch breakage or trauma indicators suggest this is likely a scar tree.



In addition, on the southwest side of the trunk, there is another scar, Scar 2, that does not conform to Aboriginal scarring morphology owing to its irregular shape and position at the base of the tree, and is likely a natural trauma scar owing to branch tearing (Plate 18 - Plate 21).

No further Aboriginal sites were identified during the survey.



Plate 18: Aboriginal cultural heritage site Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100) in landscape, facing southwest.



Plate 20: Healed regrowth at base of cultural scar on Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100), facing southwest.



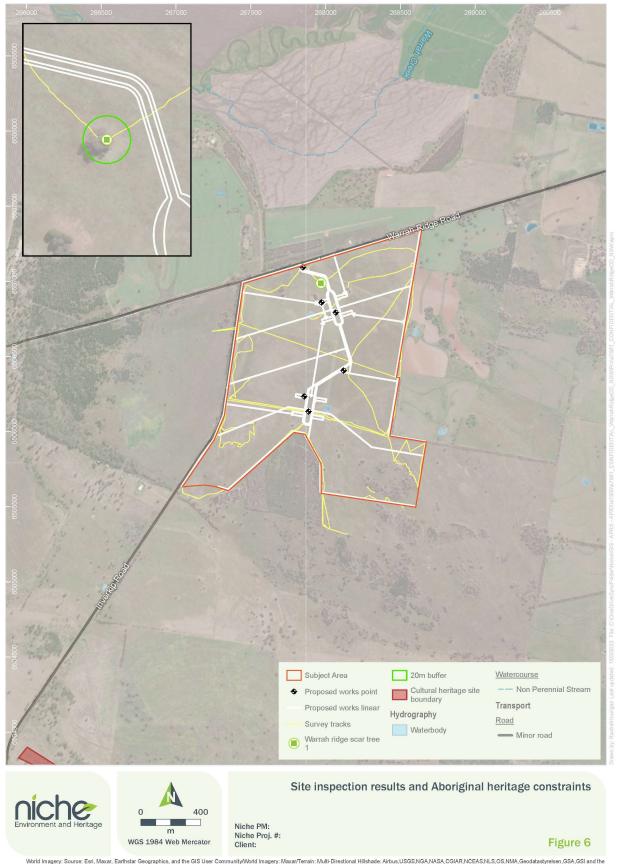
Plate 19: Close up of elongated cultural scar on Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100), facing southwest.



Plate 21: A naturally occurring scar at base of Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100), likely occurred due to tearing, facing northeast.



Figure 7: Survey of Activity Area (Source: Niche, DPIE)



World Imagery: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community/World Imagery: Maxar/Terrain: Multi-Directional Hillshade: Airbus, USGSNGA.NASA, CGIAR.NCEAS.NLS, OS.NMA, Geodatastyrelsen, GSA, GSI and the GIS User Community | Watercourses, Waterbodies, Road and Rail alignments. Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxiliary Sphere is used in the map above. For ease of reference, the grid lick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



Step 5 - Further investigations and impact assessment

This assessment confirmed that the Activity Area is within 200 m of a known waterway which constitutes a landscape feature with elevated archaeological potential. However, the previous ground disturbances associated with vegetation removal and historical agricultural use identified during the desktop and visual field inspection assessment across the Activity Area demonstrated significant topsoil disturbance due to agricultural use (ploughing) and therefore decreased the likelihood for Aboriginal archaeological material to be retained within the landscape. Where the activity is proposed within these disturbed environments, an AHIP will therefore not be required.

Conversely, one Aboriginal cultural heritage site was identified during the visual field inspection assessment. Warrah Ridge Scar Tree 1 (AHMS ID#29-5-0100) was identified within the Activity Area, but as demonstrated in Figure 6, the site and a 20 m exclusion buffer can be avoided by the proposed works. Therefore, the Activity is unlikely to harm the identified culturally modified tree (Warrah Ridge Scar Tree 1, AHIMs ID #29-5-0100). To ensure mitigation of any potential indirect impacts, a 20 m exclusion buffer (nogo zone) will be demarcated on all construction plans and inductions materials and temporary high visibility fencing will be used to physically demarcate this area on site.

Therefore, following the implementation of the aforementioned "no go zone" mitigation measures, the works may proceed with caution. If impacts are proposed to the "no go zone" or the proposed development footprint is altered, then further archaeological assessment, likely in the form of an Aboriginal Cultural Heritage Assessment (ACHA) with Aboriginal community consultation, will be required.



4 Conclusions and recommendations

Niche was commissioned by PSA Consulting Pty Ltd on behalf of Pace Farm, to produce an Aboriginal Objects Due Diligence Assessment for the proposed development of the Activity Area at Warrah Ridge, NSW. Based on this DD it has been identified that site Warrah Ridge scar tree 1 (AHIMS ID#29-5-0100) is located within the Activity Area, however, the site can be avoided by the proposed works. Based on the completion of this DD by Niche, the following recommendations have been made:

Table 5: Recommendations

Recommenda	ations
1.	Temporary high visibility fencing must be erected around the recorded location Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100) prior to any construction works proceeding. This barrier should cover a 20 m radius from the base of the tree. The recorded location, plus 20 m buffer, should be identified as a "no go zone" on all construction and management plans as well as all induction materials. Once the temporary fencing has been constructed two georeferenced photos of the constructed temporary fencing are to be sent to a qualified Niche heritage consultant for approval prior to work commencing. All works and machinery (including vehicle access) must avoid this area at all times.
2.	A site card must be submitted for AHIMS site Warrah Ridge Scar Tree 1 as per the visual inspection findings.
3.	Works may proceed with caution, following the implementation and approval of Recommendation 1.
4.	If impacts are proposed to the "no go zone" (Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100) or the proposed development footprint is altered, then further archaeological assessment, likely in the form of an Aboriginal Cultural Heritage Assessment (ACHA) with Aboriginal community consultation, will be required. These will be used to inform an Aboriginal Heritage Impact Permit (AHIP) to allow harm to the site.
	Generals
5.	All workers should be inducted into the Activity Area, so they are made aware of their obligations under the <i>National Parks and Wildlife Act 1974</i> and any conditions of any future AHIP prior to and during and after construction activities. This includes being informed of the location of site Warrah Ridge Scar Tree 1 (AHIMS ID#29-5-0100) in the Activity Area.
6.	 The following Unexpected Finds Procedure must be adhered to as a minimum response in the event of the identification of artefacts within the Activity Area during proposed works or before an ACHA can commence: Work in the surrounding area is to stop immediately. A temporary fence is to be erected around the Aboriginal cultural heritage site, with a buffer zone of at least 10 metres around the known edge of the Aboriginal cultural heritage site. An appropriately qualified archaeological consultant is to be engaged to identify the material; and Should the material be confirmed as an Aboriginal object or archaeological site, facilitate, in cooperation with the appropriate authorities and the local Aboriginal community: The recording and assessment of the finds. Compliance with any legal requirements and Heritage NSW directions. The development and implementation of appropriate management strategies based on an assessment of the significance of the finds.



Recommendations

- The recommencement of ground disturbance works may only resume once legal requirements are fulfilled.
- An Aboriginal Heritage Impact Permit (AHIP) will be required.
- 7. In the unlikely event that suspected human remains are encountered during construction, all work in the area that may cause further impact, must cease immediately and:
 - The location, including a 20 m curtilage, should be secured using barrier fencing to avoid further harm.
 - The NSW Police must be contacted immediately.
 - No further action is to be undertaken until the NSW Police provide written notification to the Proponent.
 - If the skeletal remains are identified as Aboriginal, the Proponent or their agent must contact:
 - Heritage NSW's Enviroline on 131 555; and representatives of the RAPs.
 - No works are to continue until Heritage NSW provides written notification to the proponent or their Agent.



5 References

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

Department of Planning 2022, *Soil Landscape Report for Goscombes Road* - eSPADE version 2.1 NSW Department of Planning, Industry and Environment, Sydney. Accessed May 2022 https://www.environment.nsw.gov.au/eSpade2WebApp

Liverpool Plains Shire Council. 2011. Local Environmental Plan

Liverpool Plains Shire Council. 2012. Development Control Plan

McInnes-Clarke, S.K. 2002. *Soil Landscapes of the Murrurundi 1:100 000 Sheet*. Department of Land and Water Conservation, Sydney.

Niche Environment and Heritage. 2020a. *Aboriginal Objects Due Diligence Assessment Warrah Ridge Farm* 1. Report for PSA Consulting on behalf of Pace Farm.

Niche Environment and Heritage. 2020b. *Aboriginal Objects Due Diligence Assessment Warrah Ridge Farm* 2. Report for PSA Consulting on behalf of Pace Farm.

Niche Environment and Heritage. 2022. *Aboriginal Objects Due Diligence Assessment Warrah Ridge Farm 2 Addendum*. Report for PSA Consulting on behalf of Pace Farm.

Nolan, R. 2012, "We want to do what they did": History at St Clair, Department of History, the University of Sydney.

Tindale, N. B & Jones, R. 1974, Aboriginal tribes of Australia: their terrain, environmental controls, distribution, limits and proper names, Australian National University Press, Canberra.

Stewart and Percival 1997, Bush Foods of New South Wales, Royal Botanic Gardens, Sydney.



Appendix A – AHIMS extensive search



AHIMS Web Services (AWS)

Extensive search - Site list report

Your Ref/PO Number: 7861 Client Service ID: 748163

<u>SiteID</u>	<u>SiteName</u>	Datum	<u>Zone</u>	Easting	Northing	<u>Context</u>	Site Status **	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
29-5-0001	Warrah Ridge;	AGD	56	266300	6503500	Open site	Valid	Grinding Groove : -	Axe Grinding	
	_								Groove	
	<u>Contact</u>	Recorders	G Ha	mmond				<u>Permits</u>		
29-5-0003	Waverton;Watagarra Station;	AGD	56	270500	6505210	Open site	Valid	Grinding Groove : -	Axe Grinding Groove	
	<u>Contact</u>	Recorders	J Gri	fiths,Quirind	i District Histo	orical Society		<u>Permits</u>		
29-5-0004	Boxwood;Bonny Ridge;Colly Plains;	AGD	56	271660	6503500	Open site	Valid	Grinding Groove : -	Axe Grinding Groove	
	<u>Contact</u>	Recorders	Nung	garoo LALC				Permits		
29-5-0023	Quirindi;Tamworth;	AGD	56	279900	6511500	Open site	Valid	Grinding Groove : -	Axe Grinding Groove	
	<u>Contact</u>	Recorders	Nung	garoo LALC				<u>Permits</u>		
29-4-0047	BBS; Walhallow LALC; Yondilla ST1	AGD	56	260924	6505222	Open site	Valid	Modified Tree (Carved or Scarred) : 1		98931
	Contact	Recorders	Arch	aeological Su	rveys & Salvag	ge ,Walhallow LALC -	BBS survey team	Permits		
29-4-0048	BBS; Walhallow LALC; Connamarra ST1	AGD	56	260262	6508016	Open site	Valid	Modified Tree		98931
								(Carved or Scarred) : 1		
	<u>Contact</u>	Recorders	Arch	aeological Su	rveys & Salvag	e ,Walhallow LALC -	BBS survey team	<u>Permits</u>		
29-4-0049	BBS; Walhallow LALC; Connamarra ST2	AGD	56	260259	6508024	Open site	Valid	Modified Tree		98931
								(Carved or Scarred) :		
	<u>Contact</u>	Recorders	Arch	aeological Su	rveys & Salvag	ge ,Walhallow LALC -	BBS survey team	Permits		
29-5-0065	quirindi artefact site	GDA	56	279133	6510973	Open site	Destroyed	Artefact : -, Ochre		
								Quarry : -		
	Contact Mr.Gary Allen	Recorders	Mr.B	ruce Cohen				<u>Permits</u>		
29-5-0091	IF 1 Quirindi	GDA	56	279175	6512262	Open site	Valid	Artefact: 3		
	Contact	Recorders	Paul	Houston				Permits		

** Site Status

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

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

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

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



Appendix B - Site cards

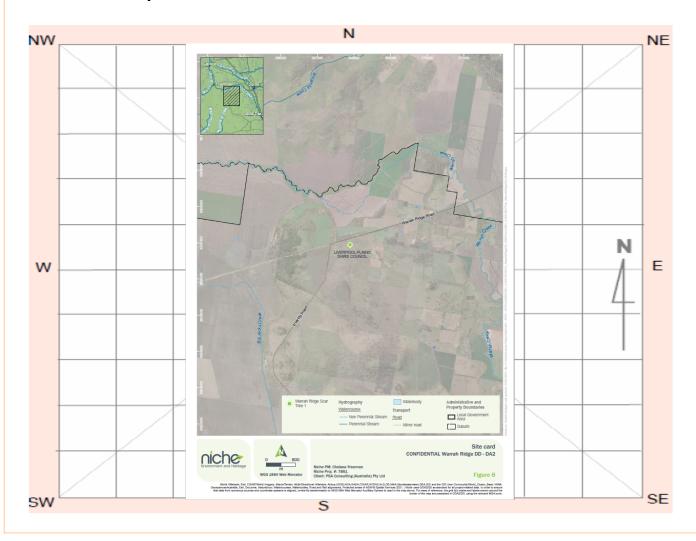


Aboriginal Site Recording Form Manager, Information Systems

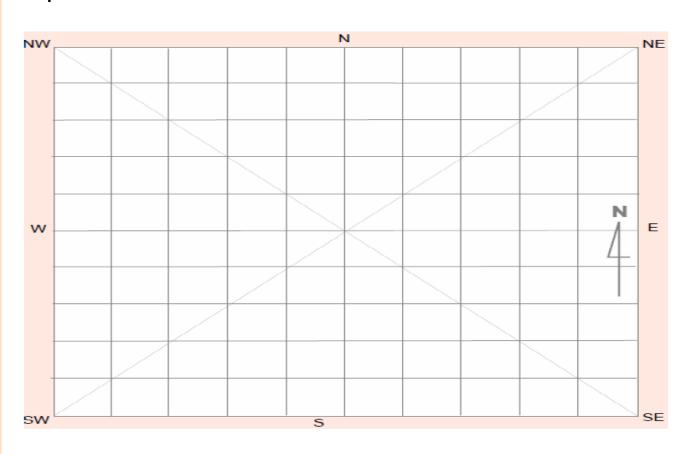
Locked Bag 5020, Parramatta 2124 NSW

AHIMS site II	D:				Date recorded:	29-05-2023
Site Location	n Information	1				
Site name:	Warrah Ridge	Scar I	ree 1			
<u>L</u>			г		0	- in ODA04 (140A)
Easting: 2	68010		Northing:	6507035	Coordinates must be	e in GDA94 (MGA)
Horizontal A	ccuracy (m):	5				
Zone: 56				Non-Differe	ential GPS	
Recorder Info (The person responsib			sion of this form)	First name	
Ms. Free	man			Chels	sea	
Organisation:	Niche enviro	nment a	and herita			
Address:	4/460 church	street	parramat	ta nsw 2150		
Phone: 0488	774501	E-mail:	cfreeman	@niche-eh.com	n	
Site Context	Information					
Land Form				Land Use:		
Pattern:	Plain				Farming Intensive	
Land Form Unit:	Flat			Vegetation	: Cleared	
Distance to Water (m):		rimary [eport:	DD Warrah	Ridge Road a	nd Inverkip Road, War	rah Ridge
How to get	I ogatod at t	ho gout	h-oagtor	gornor of the	e intersection between	Warrah
to the site:				l, Warrah Ridg		Wallall
				.,	, - ,	
Other site	Site has bee	en subje	ected to h	istorical agr	ricultural use.	
information:						
	I					

Site location map



Site plan



Site contents information o	pen/closed site: Open	Site condition: Disturbed
Features: 1. Modified Tree Feature condition: Good Description:	Number of features Length of Width of feature(s) feature (s) extent (m) extent (m) 1 1 1 5	Scarred Trees Scar Depth Regrowth (cm) Scar shape Tree Species 10 40 Elongate Other
Scar located approximately 95 cm at the top and on average is 5 cm naturally occurring scar on south	m wide. Scar is north-east	
Features: 2. Feature condition: Description:	Number of feature(s) feature (s) extent (m)	Scarred Trees Scar Depth Regrowth (cm) (cm) Scar shape Tree Species
Features: 3. Feature condition: Description:	Number of feature(s) feature (s) extent (m) extent (m)	Scarred Trees Scar Depth Regrowth (cm) (cm) Scar shape Tree Species

Features: 4. Feature condition: Description:	Number of feature(s) feature (s) feature (m)	Scarred Trees Scar Depth Regrowth (cm) Scar shape Tree Species
Features: 5. Feature condition: Description:	Number of feature(s) feature (s) extent (m) Number of feature(s) feature (s) extent (m)	Scarred Trees Scar Depth Regrowth (cm) (cm) Scar shape Tree Species

Site photographs



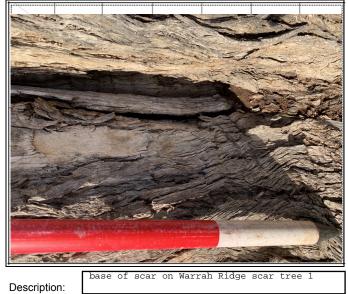
Description:

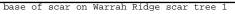
Warrah Ride scar tree 1



Description:

elongated scar on Warrah Ridge scar tree 1







Naturally occurring scar on southwest side of Warrah Ridge Scar Tree 1 Description:

Site restrictions Do you want to Restrict this site?:		Restriction type:	Gender General Location	
Why is this site restric	ted?:			
Further informatio	n contact			
Title	Surname		First name	
Organisation:				
Address:				
Phone:	E-mail:			
Site interpretation	n and commu	nity statement		

5 v1.4 June 2022



Contact Us

Niche Environment and Heritage 02 9630 5658

info@niche-eh.com

NSW Head Office - Sydney PO Box 2443 North Parramatta NSW 1750 Australia

QLD Head Office - Brisbane PO Box 549 Fortitude Valley QLD 4006 Australia

Sydney Brisbane Cairns

Port Macquarie Illawarra Coffs Harbour

Central Coast

Gold Coast Canberra







© Niche Environment and Heritage, 2022

Our services

Ecology and biodiversity

Terrestrial

Freshwater

Marine and coastal

Research and monitoring

Wildlife Schools and training

Heritage management

Aboriginal heritage

Historical heritage

Conservation management

Community consultation

Archaeological, built and landscape values

Environmental management and approvals

Impact assessments

Development and activity approvals

Rehabilitation

Stakeholder consultation and facilitation

Project management

Biodiversity offsetting

Offset strategy and assessment (NSW, QLD, Commonwealth)

Accredited BAM assessors (NSW)

Biodiversity Stewardship Site Agreements (NSW)

Offset site establishment and management

Offset brokerage

Advanced Offset establishment (QLD)