

## **ATTACHMENT 3 – ABORIGINAL CULTURAL HERITAGE ASSESSMENT**

# **Archaeological Subsurface Investigation and Analysis of Aboriginal Stone Artefacts**

Aboriginal Heritage Impact Permit Number 1104369

**Report to the NSW Department of  
Environment and Climate Change**

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## Executive Summary

Stone artefacts were collected from the exposed surfaces of eleven Aboriginal archaeological sites previously located within the proposed development area of the Sunset Waters residential subdivision at Lake Wyangan, Griffith. Test excavations were conducted to examine the potential for subsurface archaeology. The artefact collections and excavations were conducted in accordance with an Aboriginal Heritage Impact Permit (number 1104369) under s.87 of the NSW *National Parks and Wildlife Act 1974*, issued to salvage Aboriginal objects within areas that Waterfront (Griffith) Pty Ltd plans to develop for residential housing.

The aim of the archaeological investigation was to establish the presence, extent and significance of any Aboriginal cultural heritage places and items in the study area. The program was also aimed at protecting Aboriginal cultural heritage items.

The previously identified archaeological sites were eleven isolated finds of stone artefacts (DECC sites 49-2-0115—49-2-0125) recorded by Coulter (2005). Ten of the registered Aboriginal cultural heritage sites in the Lake Wyangan study area contained single artefacts and one contained two artefacts. The lithic resources represented were silcrete (n=9, 75 %) and quartzite (n=3, 25 %), which were probably derived from nearby outcrops in the surrounding McPherson Range. The stone artefacts were flakes (n=7, 58 %), angular fragments (n=4, 33 %) and a flaked piece (n=1, 9 %), which could be the general debris generated from making and sharpening stone tools. The artefacts lacked informative use-wear or secondary working features.

All of the previously identified isolated finds of stone artefacts occurred along a vehicle track. No additional Aboriginal cultural heritage places or items were encountered during the archaeological subsurface investigations, which included test pits and mechanical scrapes.

The study area is located on the regional sandplain east of Lake Wyangan, which was a saline playa prior to conversion to a reservoir in 1957 and hence not particularly favourable for past human occupation. Moreover, previous earthworks have extensively modified the surface and subsurface of the study area. This past disturbance has included clearing the original vegetation, levelling the land surface, ploughing and deep ripping for horticulture, trenching for irrigation pipes and construction of channels and contour banks for flood irrigation. It is therefore improbable that the distribution of stone artefacts reflects their deposition by past Aboriginal people, but instead is a result of recent earth disturbance. It is possible that the stone artefacts have been imported to the study area in road gravel spread along the vehicle track.

This study confirms Coulter's (2005) conclusion that "because of the intensive

disturbance over the entire study area, none of the finds could be expected to have remained *in situ* and therefore there is no context to any of the sites". Additionally, Coulter's (2005) interpretation that the archaeological sites at the study area are of low scientific significance is similarly valid because of their disturbed and questionable context, the low number, density and diversity of artefacts, paucity of formal implement types and lack of evidence of use-wear or retouch.

It is concluded that the potential for Aboriginal cultural heritage places or items to occur in the study area is low. Moreover, the high level of previous ground disturbance means that any cultural heritage that could be present would offer little useful archaeological information. Therefore, it is recommended that the proposed residential subdivision be allowed to proceed without additional cultural heritage investigation.

If any previously unidentified Aboriginal cultural heritage places or items are encountered during the course of the proposed development all works likely to affect the material shall cease immediately and the NSW Department of Environment and Climate Change's Environmental Line (tel: 131 555) consulted about an appropriate course of action prior to recommencement of work. It is an offence under the NSW *National Parks and Wildlife Act 1974* to disturb or destroy Aboriginal cultural heritage items without written consent of the Director-General of the NSW Department of Environment and Climate Change.

If human skeletal remains are encountered during the course of the proposed development all work in that area would cease. Remains would not be handled or otherwise disturbed except to prevent further disturbance. If the remains are thought to be less than 100 years old the Police or the State Coroners Office (tel: 02 9552 4066) would be notified. If there is reason to suspect that the skeletal remains are more than 100 years old and Aboriginal, the NSW Department of Environment and Climate Change's Environmental Line (tel: 131 555) would be contacted for advice.

## 1 Introduction

Stone artefacts were collected from the exposed surfaces of eleven Aboriginal archaeological sites located within the proposed development area of the Sunset Waters residential subdivision at Lake Wyangan, Griffith (Figure 1). Test excavations were conducted to examine the potential for subsurface archaeology. The artefact collections and excavations were conducted in accordance with an Aboriginal Heritage Impact Permit (number 1104369) under s.87 of the NSW *National Parks and Wildlife Act 1974*, issued to salvage Aboriginal objects within areas that Waterfront (Griffith) Pty Ltd plans to develop for residential housing.

The archaeological sites are eleven isolated finds of stone artefacts (DECC sites 49-2-0115—49-2-0125) recorded by Coulter (2005).

### 1.1 Aims

The aim of the archaeological investigation was to establish the presence, extent and significance of any Aboriginal cultural heritage places and items in the study area. The program was also aimed at protecting Aboriginal cultural heritage items, which were recorded, collected, curated and stored in a "Keeping Place" at the Griffith Local Aboriginal Land Council office.

## 2 Background

Coulter (2005) completed a cultural heritage assessment of the proposed Sunset Waters residential subdivision in 2005. The survey located 11 Aboriginal archaeological sites; all isolated finds of stone artefacts.

The Statement of Environmental Effects (EA Systems Pty Ltd 2007) prepared for the proposed development required additional archaeological investigation to establish the presence, extent and significance of Aboriginal cultural heritage items that may occur in the study area.



**Figure 1.** Map of the Sunset Waters study area showing the locations of the isolated finds of Aboriginal stone artefacts.

### 3 Aboriginal Community Involvement

In accordance with the DECC's *Guidelines for Archaeological Practice in Aboriginal Heritage Management* (NPWS 1997) and consistent with the *Interim Community Consultation Requirements for Applicants* (DEC 2004), this assessment has involved the appropriate representatives of the local Aboriginal community and considered their cultural values and concerns.

The directors of Waterfront (Griffith) Pty Ltd and their cultural heritage advisors (Biosis Research Pty Ltd to 2009, Landsape from 2009) have engaged in detailed discussions with members of the local Aboriginal community since 2005. This has included field inspections of the study area and meetings with representatives of the local Aboriginal community to explain the project and seek their opinions about the management of cultural heritage.

Aboriginal community consultation for the cultural heritage study was conducted: before the field collection and excavations to provide an update on the Sunset Waters development and its impact on archaeological sites, discuss the methodology for the cultural heritage study and organize a field team; during the field study with the Aboriginal community representatives; and after the study to communicate the findings and other aspects of managing Aboriginal cultural heritage places and items from the Sunset Waters development area.

#### 3.1 Identification of Aboriginal Community Groups and Individuals

Relevant stakeholders from the Aboriginal community were identified using a process consistent with the *Interim Community Consultation Requirements for Applicants* (DEC 2004), as follows:

- written letters of notification to the Griffith Local Aboriginal Land Council, Registrar of the NSW *Aboriginal Land Rights Act* 1983, NSW Native Title Services Corporation (NTSCORP) Limited, DECC and Griffith Shire Council; and,
- public advertisements placed in the local newsprint media (*The Area News* [20 and 27 August 2007], *The Irrigator* [21 and 28 August 2007]).

There were four responses to the written letters of notification and public notices (EA Systems Pty Ltd 2007):

- Registrar of the NSW *Aboriginal Land Rights Act* 1983 stating that the development area does not appear to have Registered Aboriginal Owners (28 August 2007);
- Mlyagan Aboriginal Development Association Inc. registering their interest in the

project (30 August 2007);

- Griffith Aboriginal Community Working Party registering their interest in the project (31 August 2007); and,
- Griffith Local Aboriginal Land Council registering their interest in the project (20 September 2007);

### 3.1.1 Preliminary Aboriginal Involvement

Discussions were held with members of the Griffith Aboriginal community about the management of cultural heritage place and items prior to the subsurface investigation phase of the study. This was initiated by the directors of Waterfront (Griffith) Pty Ltd and their project archaeologist (Niamh Coulter of Biosis Research Pty Ltd) in 2005.

Niamh Coulter of Biosis Research Pty Ltd conducted an archaeological field survey of the study area on 29 June 2005, assisted by Griffith Local Aboriginal Land Council heritage officer, Steve Meredith (Coulter 2005). Eleven isolated finds of Aboriginal stone artefacts were identified during the field assessment. The archaeologist and Aboriginal heritage officer concurred that the archaeological sites were of low significance (Coulter 2005).

Copies of a draft research methodology for additional archaeological investigation were forwarded to Miyagan Aboriginal Development Association Inc., Griffith Local Aboriginal Land Council and Griffith Aboriginal Community Working Party for comment by then project cultural heritage advisors, Biosis Research Pty Ltd. On 24 September 2007 and 9 November 2007 representatives of the registered Aboriginal groups met at the Griffith Local Aboriginal Land Council administrative office in Griffith to discuss the draft research methodology with project archaeologists from Biosis Research Pty Ltd. Additionally, the registered Aboriginal stakeholders met at the development area with John Carbone, representing the proponent, and Scott Rogerson, project archaeologist from Biosis Research Pty Ltd. During these discussions it was recommended that a program of stone artefact collection and archaeological subsurface testing be completed.

Waterfront (Griffith) Pty Ltd engaged nghenvironmental Pty Ltd as environmental advisors in 2009, who engaged Landskape as cultural heritage advisors for the project. Project archaeologist Matt Cupper sent registered Aboriginal stakeholders a revised draft research methodology by e-mail on 29 June 2009. Project archaeologist Matt Cupper and John Carbone, representing the proponent, met with registered Aboriginal stakeholders at the Griffith Local Aboriginal Land Council administrative office in Griffith on 1 July 2009 to discuss the draft research methodology.

Concerns were raised by Steve Meredith (Griffith Local Aboriginal Land Council) that proposed subsurface testing was not directed to locating burials and wanted test pits in areas with no surface archaeology. Project archaeologist Matt Cupper explained that the areas with the highest probability of containing subsurface archaeology were in areas with surface archaeology and that broad mechanical scapes were an efficient strategy to maximize surface coverage. Steven Meredith agreed to defer to project archaeologist Matt Cupper's professional opinion. Judith Johnson (Griffith Local Aboriginal Land Council) agreed that collected artefacts could be stored at the Griffith Local Aboriginal Land Council administrative office in Griffith.

Project archaeologist Matt Cupper sent a revised draft research methodology to registered stakeholders by e-mail on 3 July 2009. Registered stakeholders Miyagan Aboriginal Development Association Inc. endorsed the AHIP application by fax on 6 July 2009. The Griffith Local Aboriginal Land Council and Griffith Aboriginal Community Working Party made no formal response to the research methodology.

### **3.1.2 Aboriginal Involvement Prior to the Study**

Project archaeologist Matt Cupper and John Carbone, representing the proponent, contacted the Miyagan Aboriginal Development Association Inc. and Griffith Local Aboriginal Land Council by e-mail and telephone on 23 and 24 August 2009 advising them of the intention to initiate the archaeological subsurface investigation and stone artefact recording and collection and organize a field team. Project archaeologist Matt Cupper also met with Griffith Local Aboriginal Land Council Executive Officer Warren Ingram at the Griffith Local Aboriginal Land Council administrative office in Griffith on 31 August 2009 to discuss the study.

### **3.1.3 Aboriginal Involvement During the Study**

Robert Carroll of the Miyagan Aboriginal Development Association Inc. arranged for Sue-Ann Kirby to participate in the field recording and collection of stone artefacts and archaeological subsurface investigations. Despite the efforts of Warren Ingram, Executive Officer of the Griffith Local Aboriginal Land Council, to organize additional field assistants from the registered Aboriginal stakeholder groups, none were available.

Sue-Ann Kirby of the Miyagan Aboriginal Development Association Inc. assisted the project archaeologist during the field recording and collection of stone artefacts and archaeological subsurface investigations on 31 August and 1 and 2 September 2009.

### 3.1.4 Aboriginal Involvement Following the Study

Project archaeologist Matt Cupper met with Griffith Local Aboriginal Land Council Executive Officer Warren Ingram and Robert Carroll of the Miyagan Aboriginal Development Association Inc. in Griffith on 2 September 2009 to update them on the results of the archaeological field investigation.

Copies of this report were provided to the registered Aboriginal stakeholders.

## 4 Methodology

The project archaeologist, assisted by Aboriginal community representative Sue-Ann Kirby, relocated the eleven Aboriginal archaeological sites in the field. Their spatial parameters were defined and the site locations were described and photographed.

### 4.1 Analysis of Lithic Assemblages

Locations of all Aboriginal artefacts at the sites were determined using a Garmin global navigational satellite system (GNSS) (accuracy  $\sim \pm 5$  m). As the position of each artefact was recorded, its dimensions in three planes (length, width, thickness) were measured using a pair of vernier callipers to the nearest millimetre. The lithic material of the artefact was recorded, as was its typology. Any diagnostic technological or knapping features were noted using a hand lens.

Each artefact was labelled with a unique numeric identifier and separately bagged in a resealable plastic bag. Each bag was also labelled with the same numeric identifier on an acid-free cardboard tag placed inside the bag. Bags were collated by site and placed in labelled cardboard archival cartons, in which they were transferred to a "Keeping Place" at the Griffith Local Aboriginal Land Council administrative office, 5 Wiradjuri Place, Griffith.

Specific aspects of the lithic analysis are outlined in the following sections.

#### 4.1.1 Physical Dimensions

Physical dimensions of the artefacts were measured to give an indication of their size. These can be used in analyses of artefact cross-sections in reduction sequence charts, but there were too few artefacts at the study area for such analyses to provide meaningful results. Measurements were recorded to the nearest millimetre using vernier callipers in the three planes: length, width and thickness. Measurements were made according to the largest dimension, irrespective of the orientation of the artefact. The largest dimension was recorded as the length, with the width recorded at 90° to the length, and the thickness perpendicular to the plane of length-width.

#### 4.1.2 Lithic Material

All of the artefacts were of silcrete or quartzite. This was probably derived from nearby outcrops of silicified sandstones of the Late Devonian (375-355 Ma) Womboyne and Rankin formations of the Cocoparra Group (Pogson 1974). These rocks form the McPherson Range; low hills that surround the sandplains that comprise the study area.

### 4.1.3 Typological Classification

Stone artefact types recorded during the collection were flakes, flaked pieces and angular fragments. These lithic typologies are described below:

- **Flakes:** a *flake* is any piece of stone removed from a larger mass by the application of force. The ventral surface has features related to its detachment from the *core*, typically a proximal butt at the point of impact and a conchoidal percussion bulb.
- **Flaked pieces:** *flaked pieces* are flaked stone lacking clear *core* or *flake* attributes. Traces of a conchoidal percussion bulb are regularly present.
- **Angular fragments:** *angular fragments* are pieces of stone lacking any diagnostic knapping features such as concave flake scars, conchoidal fracturing or retouch. Fractures tend to follow natural flaw lines.

### 4.1.4 Technological Attributes

Features on the stone artefacts that were generated during the manufacture or knapping process and during implement use were observed by eye and examined using a hand lens. Attributes noted included fractures and conchoidal percussion bulbs.

### 4.1.5 Labelling, Curation and Storage

Artefacts were labelled directly with ink in the field. A series of numeric identifiers were used, which included the DECC site number of the site that the artefact was collected from, followed by an artefact number that was allocated consecutively. For example, the 1st artefact collected from DECC site 49-2-0125 was labelled '49-2-0125-1'.

The artefacts were then placed in individual resealable plastic bags along with a printed acid-free cardboard label with the same number as the artefact. All artefacts from each site were combined in a single plastic bag, which was labelled with a printed acid-free cardboard tag listing the site number. The artefacts from all the sites were stored in labelled cardboard archival boxes and placed in a "Keeping Place" at the Griffith Local Aboriginal Land Council administrative office, 5 Wiradjuri Place, Griffith.

## 4.2 Test Excavation

### 4.2.1 Test Pits

Three pits (TP1—TP3) to test for the presence of subsurface archaeological deposits were excavated at areas where there were concentrations of stone artefacts (Figure 2). These were at the three locations where Coulter (2005) had previously identified isolated finds at a density of two or more artefacts less than 20 m apart.

The sediments of the study area were very indurated and proved impossible to excavate by hand, so the test pits were dug with a mechanical auger. These were circular, measuring 450 mm in diameter, and were excavated to 700 mm depth. The auger flight was extracted every 100 mm in depth and the sediment removed from the test pit using a shovel. Excavated sediment was sieved using a 5 mm wire mesh. Sediment compositions and textures were examined in the field and descriptions of sediment colours were obtained using Munsell® soil colour charts (Munsell 1975).

### 4.2.2 Mechanical Scrapes

Ten mechanical scrapes (T1—T10) were made across the study area to test for the presence of subsurface archaeological deposits (Figure 2). Five mechanical scrapes were located in the southern part of the study area where isolated finds of artefacts had been previously identified (Coulter 2005). These were located approximately equidistant apart at around 150 m intervals and were 200 m long. Scrapes were aligned approximately east-west, forming transects orthogonal to the shoreline of Lake Wyangan.

An additional five 200 m long mechanical scrapes were spaced approximately equidistant across the remainder of the study area. These transects were approximately 500 m apart and aligned orthogonally to the shoreline of Lake Wyangan.

A road grader was used to excavate the mechanical scrapes. Scrapes were 3 m wide and 100 mm deep. Sediment was windrowed on both sides of the scrapes. After each pass of the grader, the bases of the scrapes were examined for exposed Aboriginal archaeological materials such as stone artefacts, hearthstones or charcoal from hearths or bones. Additionally, the windrowed sediment was turned over by hand using shovels at 10 m intervals and 0.10 m<sup>3</sup> of sediment sieved through a 5 mm wire mesh every 10 m.



Figure 2. Locations of the archaeological subsurface test pits and mechanical scrapes.

## 5 Results

A total of 12 stone artefacts were collected from the 11 Aboriginal archaeological sites (Table 1). The sites and their artefact assemblages are described separately below.

DECC site number	Coulter (2005) site name	GDA94 (Zone 55) mE	GDA94 (Zone 55) mN	Description
49-2-0115	GLW1	410692	6212999	Pale grey silcrete expanded flake 23 x 16 x 7 mm
49-2-0116	GLW2	410698	6212831	Buff silcrete angular fragment 30 x 26 x 10 mm
49-2-0117	GLW3	410700	6212753	Pale grey silcrete broken flaked piece 48 x 24 x 19 mm
49-2-0118	GLW4	410717	6212620	Light brown quartzite angular fragment 30 x 18 x 8 mm
49-2-0119	GLW5	410750	6212609	Buff silcrete angular fragment 22 x 13 x 6 mm
49-2-0120	GLW6	410757	6212620	Buff silcrete elongate broken flake with cortex 14 x 9 x 3 mm
49-2-0121	GLW7	410954	6212630	Pale grey silcrete regular flake 19 x 18 x 6 mm
49-2-0122	GLW8	410960	6212633	Pale orange silcrete expanded broken flake 23 x 19 x 6 mm
49-2-0123	GLW9	410970	6212639	Pale orange quartzite expanded broken flake 28 x 28 x 9 mm
49-2-0124	GLW10	411019	6212671	Pale grey silcrete angular fragment 28 x 11 x 11 mm
49-2-0125	GLW11	411047	6212691	Light brown quartzite expanded broken flake 30 x 28 x 8 mm Buff silcrete elongate broken flake 21 x 14 x 3 mm

**Table 1.** Summary of Aboriginal archaeological sites in the study area.

### 5.1 Stone artefact DECC site 49-2-0115

DECC site 49-2-0115 consisted of an isolated find of a stone artefact identified in a vehicle track on the regional sandplain 400 m east of Lake Wyangan (Figures 2, 3).

A pale grey silcrete expanded flake was collected from the site (Figure 4). Table A1 in Appendix A provides a summary of artefact attributes.



Figure 3. Isolated find of a stone artefact (DECC site 49-2-0115).



Figure 4. Silcrete flake from DECC site 49-2-0115.

## 5.2 Stone artefact DECC site 49-2-0116

DECC site 49-2-0116 consisted of an isolated find of a stone artefact identified in a vehicle track on the regional sandplain 400 m east of Lake Wyangan (Figures 2, 5).

A buff silcrete angular fragment was collected from the site (Figure 6). Table A1 in Appendix A provides a summary of artefact attributes.



Figure 5. Isolated find of a stone artefact (DECC site 49-2-0116).

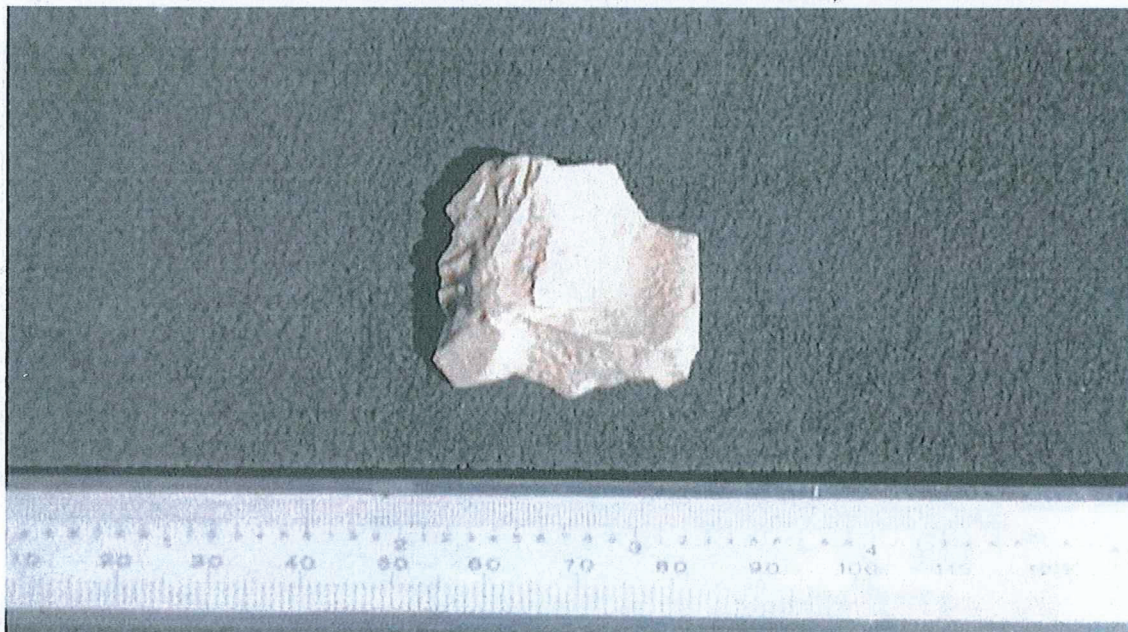


Figure 6. Silcrete angular fragment from DECC site 49-2-0116.

### 5.3 Stone artefact DECC site 49-2-0117

DECC site 49-2-0117 consisted of an isolated find of a stone artefact identified in a vehicle track on the regional sandplain 450 m east of Lake Wyangan (Figures 2, 7).

A pale grey silcrete flaked piece was collected from the site (Figure 8). Table A1 in Appendix A provides a summary of artefact attributes.



Figure 7. Isolated find of a stone artefact (DECC site 49-2-0117).



Figure 8. Silcrete flaked piece from DECC site 49-2-0117.

#### 5.4 Stone artefact DECC site 49-2-0118

DECC site 49-2-0118 consisted of an isolated find of a stone artefact identified in a vehicle track on the regional sandplain 500 m east of Lake Wyangan (Figures 2, 9).

A light brown quartzite angular fragment was collected from the site (Figure 10. Table A1 in Appendix A provides a summary of artefact attributes.



**Figure 9.** Isolated find of a stone artefact (DECC site 49-2-0118).

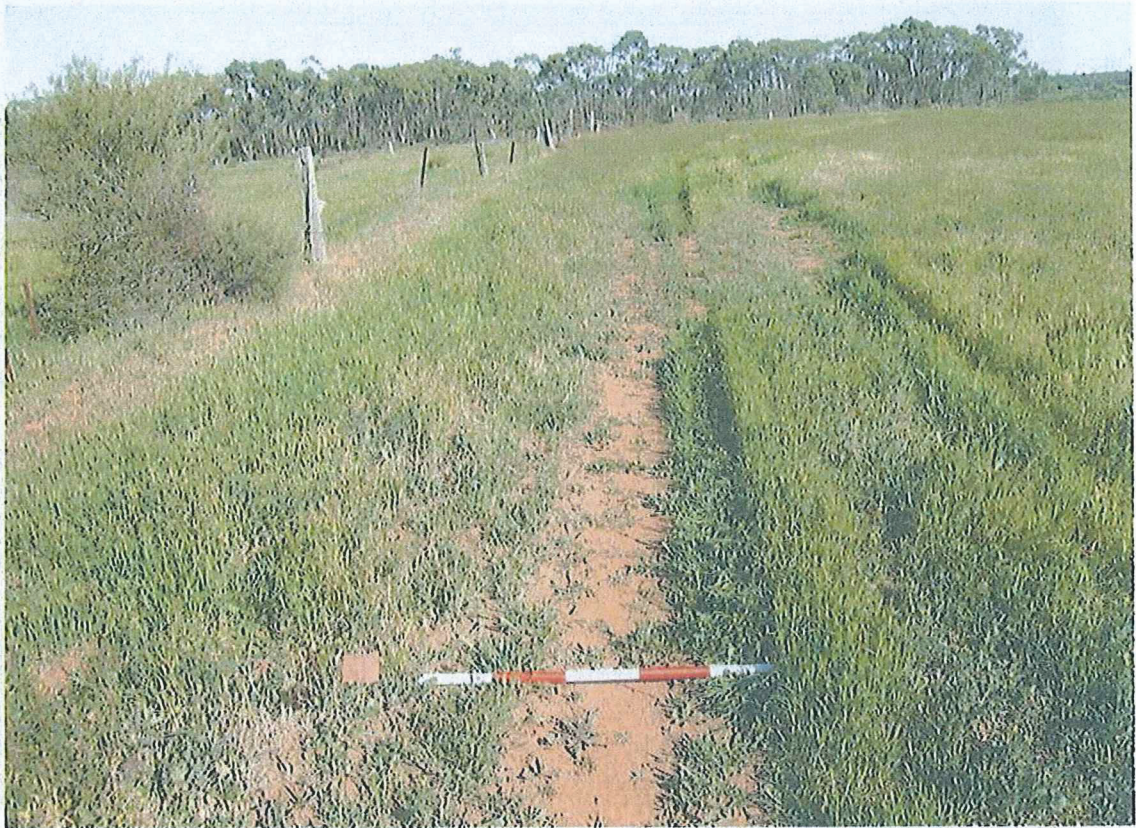


**Figure 10.** Quartzite angular fragment from DECC site 49-2-0118.

### 5.5 Stone artefact DECC site 49-2-0119

DECC site 49-2-0119 consisted of an isolated find of a stone artefact identified in a vehicle track on the regional sandplain 550 m east of Lake Wyangan (Figures 2, 11).

A buff silcrete angular fragment was collected from the site (Figure 12. Table A1 in Appendix A provides a summary of artefact attributes.



**Figure 11.** Isolated find of a stone artefact (DECC site 49-2-0119).



**Figure 12.** Silcrete angular fragment DECC site 49-2-0119.

## 5.6 Stone artefact DECC site 49-2-0120

DECC site 49-2-0120 consisted of an isolated find of a stone artefact identified in a vehicle track on the regional sandplain 400 m east of Lake Wyangan (Figures 2, 13).

A buff silcrete elongate broken flake was collected from the site (Figure 14). Table A1 in Appendix A provides a summary of artefact attributes.



**Figure 13.** Isolated find of a stone artefact (DECC site 49-2-0120).



**Figure 14.** Silcrete flake from DECC site 49-2-0120.

### 5.7 Stone artefact DECC site 49-2-0121

DECC site 49-2-0121 consisted of an isolated find of a stone artefact identified in a vehicle track on the regional sandplain 750 m east of Lake Wyangan (Figures 2, 15).

A pale grey silcrete regular flake was collected from the site (Figure 16). Table A1 in Appendix A provides a summary of artefact attributes.

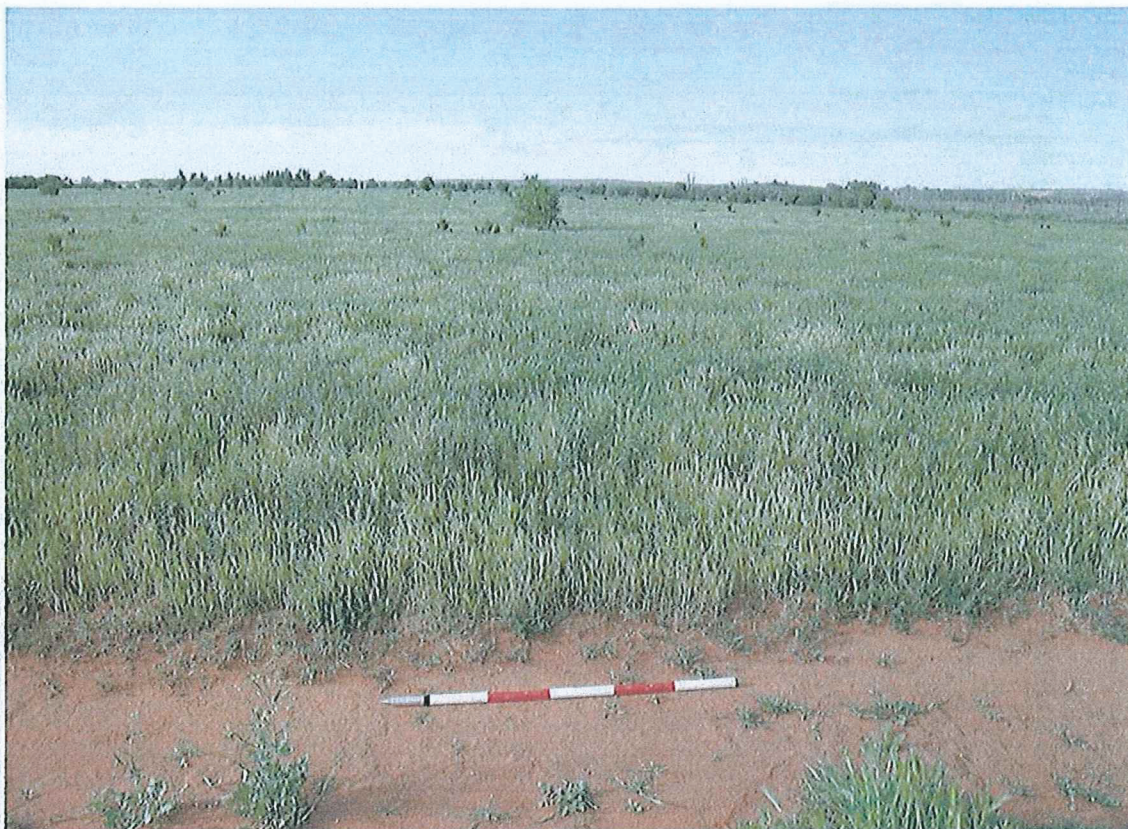


Figure 15. Isolated find of a stone artefact (DECC site 49-2-0121).



Figure 16. Silcrete flake from DECC site 49-2-0121.

### 5.8 Stone artefact DECC site 49-2-0122

DECC site 49-2-0122 consisted of an isolated find of a stone artefact identified in a vehicle track on the regional sandplain 750 m east of Lake Wyangan (Figures 2, 17).

A pale orange silcrete expanded broken flake was collected from the site (Figure 18). Table A1 in Appendix A provides a summary of artefact attributes.

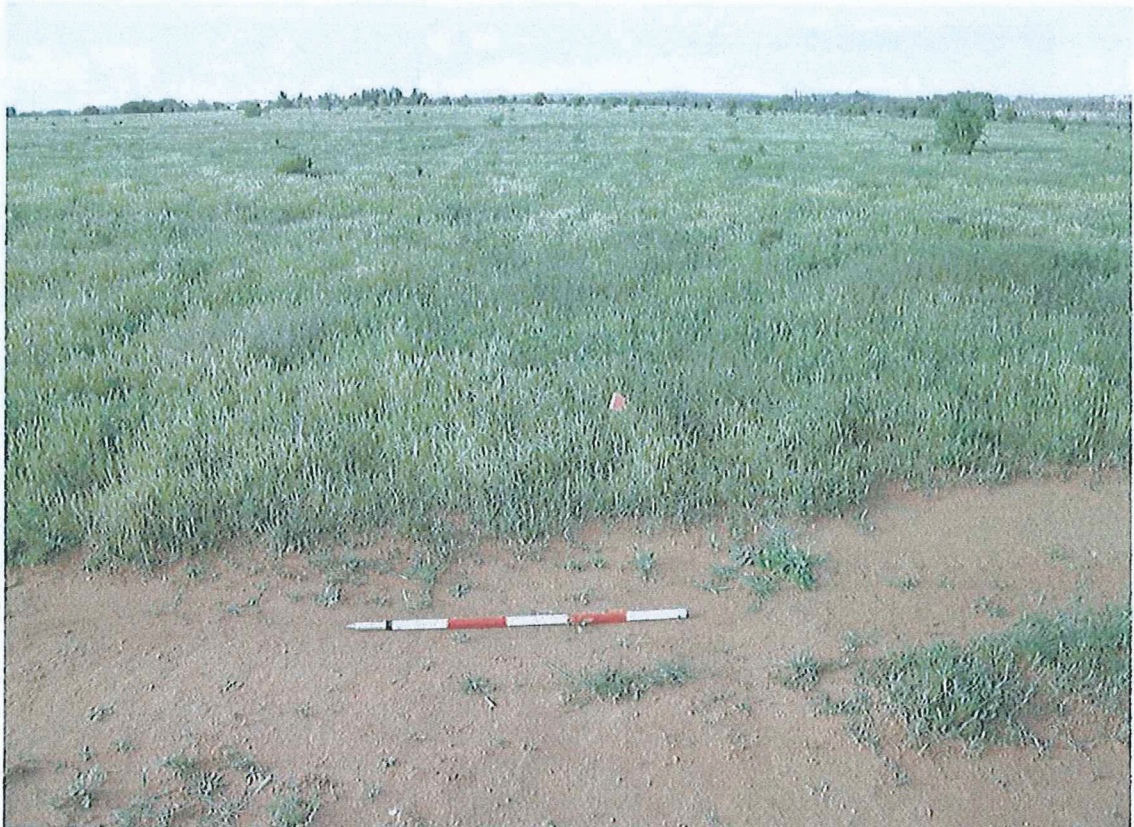


Figure 17. Isolated find of a stone artefact (DECC site 49-2-0122).



Figure 18. Silcrete flake from DECC site 49-2-0122.

### 5.9 Stone artefact DECC site 49-2-0123

DECC site 49-2-0123 consisted of an isolated find of a stone artefact identified in a vehicle track on the regional sandplain 750 m east of Lake Wyangan (Figures 2, 19).

A pale orange quartzite expanded broken flake was collected from the site (Figure 20). Table A1 in Appendix A provides a summary of artefact attributes.



Figure 19. Isolated find of a stone artefact (DECC site 49-2-0123).



Figure 20. Quartzite flake from DECC site 49-2-0123.

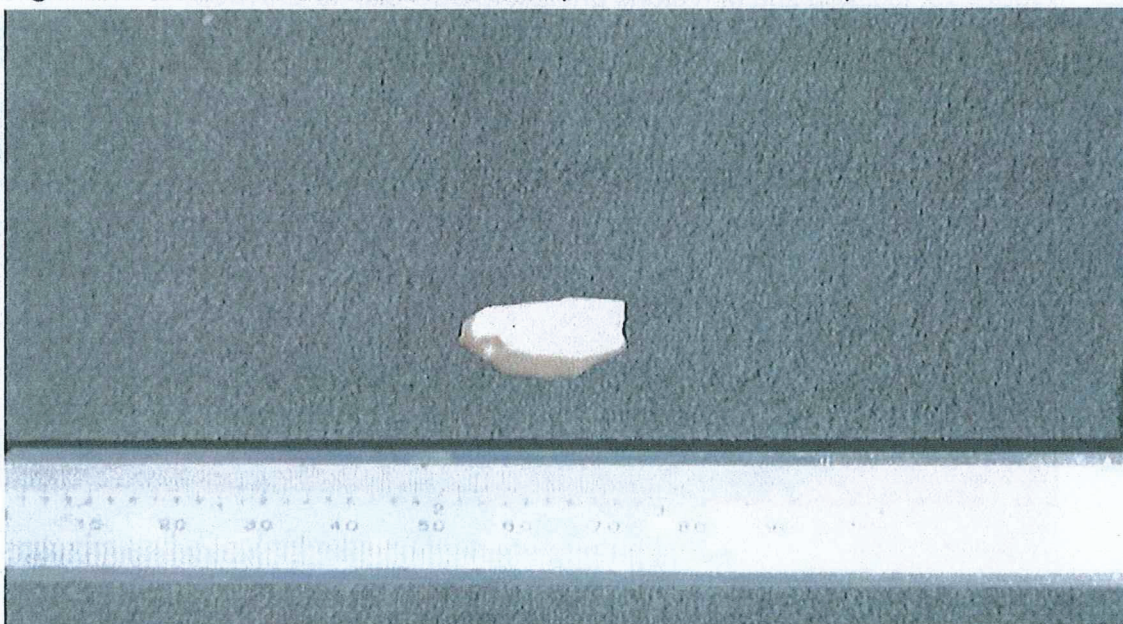
### 5.10 Stone artefact DECC site 49-2-0124

DECC site 49-2-0124 consisted of isolated find of a stone artefact identified in a vehicle track on the regional sandplain 800 m east of Lake Wyangan (Figures 2, 21).

A pale grey silcrete angular fragment was collected from the site (Figure 22). Table A1 in Appendix A provides a summary of artefact attributes.



**Figure 21.** Isolated find of a stone artefact (DECC site 49-2-0124).



**Figure 22.** Silcrete angular fragment from DECC site 49-2-0124.

### 5.11 Stone artefact DECC site 49-2-0125

DECC site 49-2-0123 consisted of an isolated find of two stone artefacts identified in a vehicle track on the regional sandplain 800 m east of Lake Wyangan (Figures 2, 23).

A light brown quartzite expanded broken flake and a buff silcrete elongate broken flake were collected from the site (Figure 24). Table A1 in Appendix A provides a summary of artefact attributes.



**Figure 23.** Isolated find of stone artefacts (DECC site 49-2-0125).



**Figure 24.** Quartzite and silcrete flakes from DECC site 49-2-0125.

## 5.12 Subsurface Testing

Three 450 x 450 x 700 mm pits to test for the presence of subsurface archaeological deposits were excavated at areas where there were surficial concentrations of stone artefacts (Table 2, Figure 25). These were at DECC site number 49-2-0125 (two artefacts within 20 m), DECC site numbers 49-2-0122 and 49-2-0123 (two artefacts within 20 m) and DECC site numbers 49-2-0119 and 49-2-0120 (two artefacts within 20 m).

Test pits at each of these locations showed the subsurface of the study area consisted of indurated reddish brown (5YR 4/4) clayey silty sand (Table 3, Figures 26-29). Soil structures in the upper ~200-300 mm had been disrupted by ploughed cultivation, deep ripping and grading to construct contour banks for flood irrigation. Blocky peds persisted to around 600 mm beneath this. The test pit excavations terminated in culturally-sterile sediments at 700 mm depth.

No cultural materials such as stone artefacts, bones, hearthstones or charcoal were encountered in any of the test pits.

Test pit number	GDA94 (Zone 55) mE	GDA94 (Zone 55) mN	Stratigraphy	Cultural deposits
TP1	411046	6212694	0-280 mm Plough zone of reddish brown (5YR 4/4) clayey silty sand 280-610 mm Blocky peds of reddish brown (5YR 4/4) clayey silty sand 610-700 mm Indurated reddish brown (5YR 4/4) clayey silty sand	na
TP2	410954	6212630	0-250 mm Plough zone of reddish brown (5YR 4/4) clayey silty sand 250-600 mm Blocky peds of reddish brown (5YR 4/4) clayey silty sand 600-700 mm Indurated reddish brown (5YR 4/4) clayey silty sand	na
TP3	410749	6212616	0-210 mm Plough zone of reddish brown (5YR 4/4) clayey silty sand 210-580 mm Blocky peds of reddish brown (5YR 4/4) clayey silty sand 580-700 mm Indurated reddish brown (5YR 4/4) clayey silty sand	na

Table 2. Test pit summary descriptions.



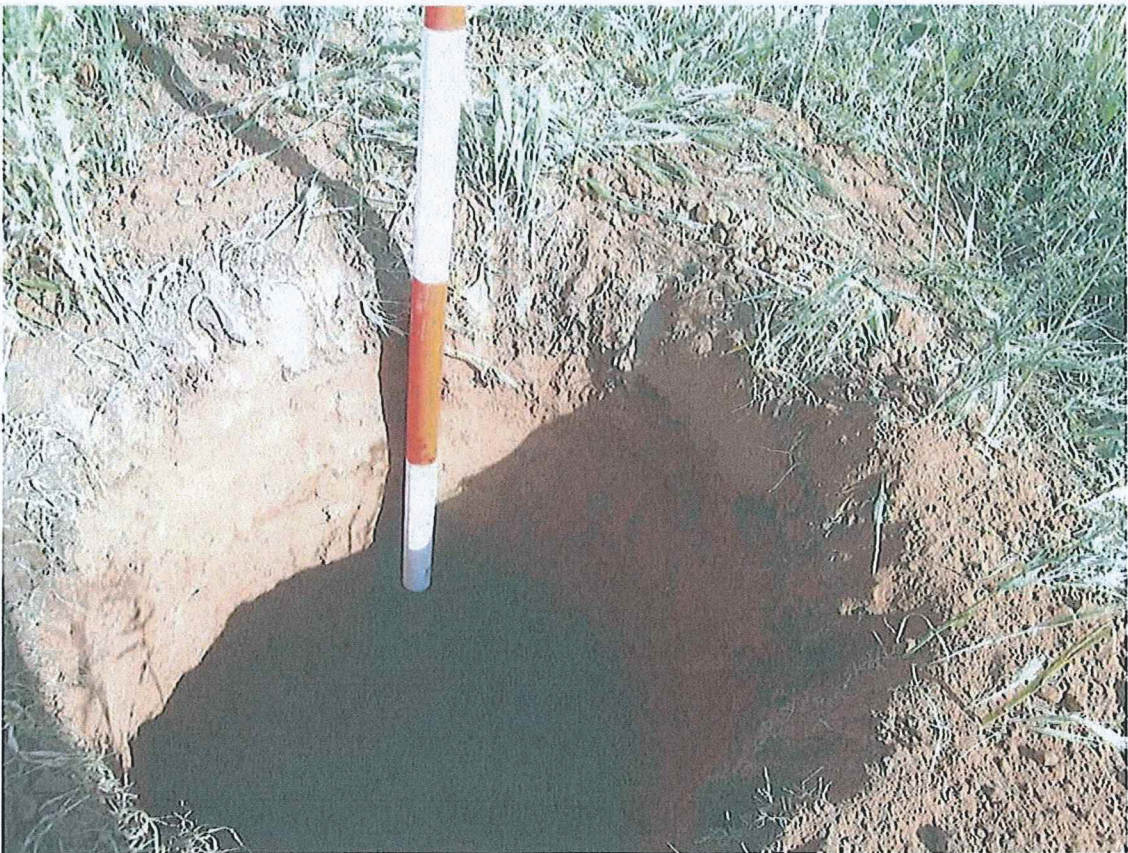
**Figure 25.** Mechanical auger with 450 mm diameter flight used to excavate the test pits.



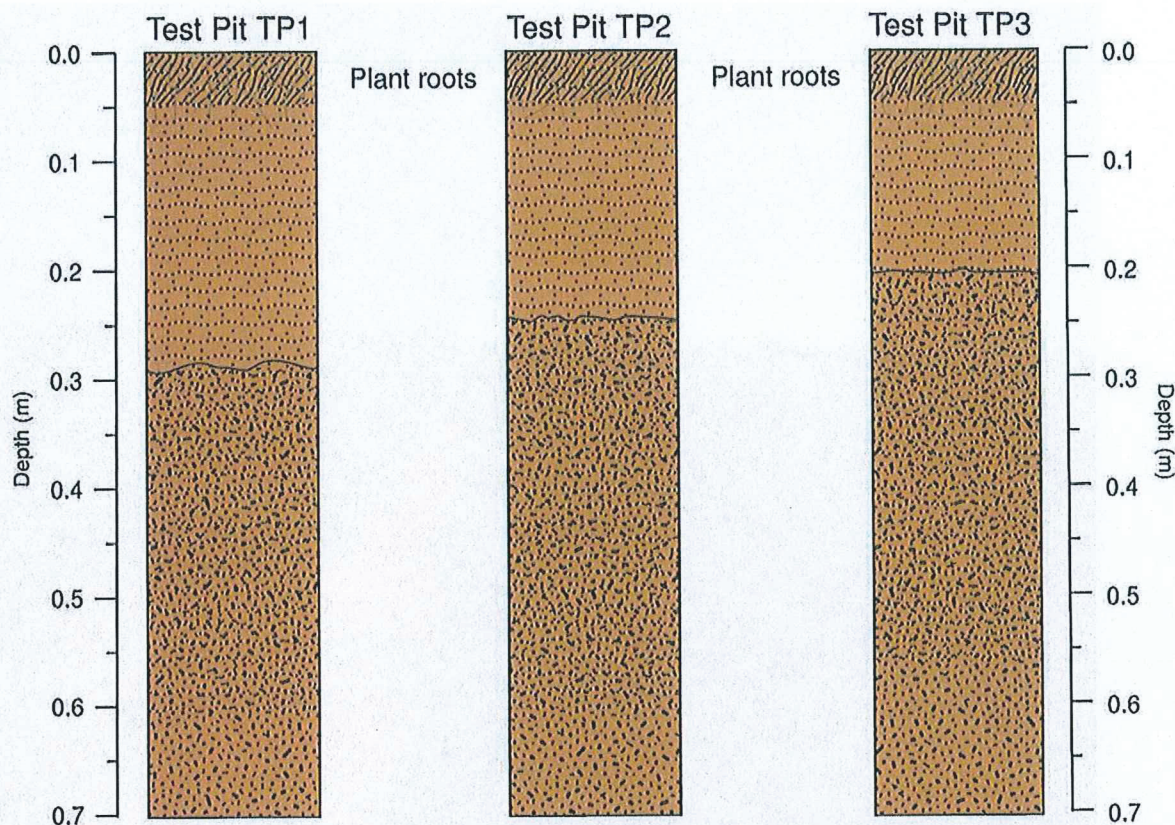
**Figure 26.** Test pit TP1 (GDA94 [Zone 55] 411046 mE, 6212694 mN).



**Figure 27.** Test pit TP2 (GDA94 [Zone 55] 410954 mE, 6212630 mN).



**Figure 28.** Test pit TP3 (GDA94 [Zone 55] 410749 mE, 6212616 mN).



### Key

	Plough zone - reddish brown (5YR 4/4) clayey silty sand		Reddish brown (5YR 4/4) clayey silty sand. Blocky peds to ~600 mm
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**Figure 29.** Stratigraphy of test pits TP1—3.

### 5.13 Mechanical Scrapes

Ten 0.1 x 3 x 200 m mechanical scrapes were made across the study area to test for the presence of subsurface archaeological deposits (Figures 30-31).

Given that the study area comprises approximately 1,780,000 m<sup>2</sup>, the mechanical scrapes provided surface area coverage of 0.33 %. Within these areas, approximately 3.33 % of the sediments were hand sieved.

The mechanical scrapes showed that the subsurface of the study area consisted of indurated reddish brown (5YR 4/4) clayey silty sand. Soil structures had been disrupted by ploughed cultivation, deep ripping and grading to construct contour banks for flood irrigation.

No cultural materials such as stone artefacts, bones, hearthstones or charcoal were encountered in the exposed floors or excavated sediment of any of the mechanical scrapes.



**Figure 30.** Road grader mechanically scraping transect T2.



**Figure 31.** Griffith Aboriginal community representative Sue-Ann Kirby and representative of Waterfront (Griffith) Pty Ltd, John Carbone, test sieving sediment at transect T9.

## 6 Discussion

### 6.1 Lithic Assemblages

Much of our understanding of prehistoric Aboriginal settlement patterns and subsistence strategies comes from examining stone artefacts, which are often the only remaining physical evidence surviving at the sites where Aboriginal people lived in the past. Ethnographic accounts suggest that Aboriginal people of the Riverine Plain also had extensive toolkits based on wooden, bone, skin and fibre technologies (e.g. Sturt 1833, Mitchell 1839, Curr 1886). These organic materials rarely survive in the archaeological record.

Ten of the Aboriginal cultural heritage sites in the Lake Wyangan study area contained single artefacts and one contained two artefacts. The lithic resources represented were silcrete (n=9, 75 %) and quartzite (n=3, 25 %), which were probably derived from nearby outcrops in the surrounding McPherson Range. The stone artefacts were flakes (n=7, 58 %), angular fragments (n=4, 33 %) and a flaked piece (n=1, 9 %), which could be the general debris generated from making and sharpening stone tools. The artefacts lacked informative use-wear or secondary working features.

All of the previously identified isolated finds of stone artefacts occurred along a vehicle track (Figure 32). No additional Aboriginal cultural heritage places or items were encountered during the archaeological subsurface investigations, which include test pits and mechanical scrapes.

The study area is located on the regional sandplain east of Lake Wyangan, which was a saline playa prior to conversion to a reservoir in 1957 (Murrumbidgee Irrigation Ltd 2006) and hence not particularly favourable for past human occupation. Moreover, previous earthworks have extensively modified the surface and subsurface of the study area. This past disturbance has included clearing the original vegetation, levelling the land surface, ploughing and deep ripping for horticulture, trenching for irrigation pipes and construction of channels and contour banks for flood irrigation (Figure 32). It is therefore improbable that the distribution of stone artefacts reflects their deposition by past Aboriginal people, but instead is a result of recent earth disturbance. It is possible that the stone artefacts have been imported to the study area in road gravel spread along the vehicle track.

This study confirms Coulter's (2005) conclusion that "because of the intensive disturbance over the entire study area, none of the finds could be expected to have remained *in situ* and therefore there is no context to any of the sites". Additionally,

Coulter's (2005) interpretation that the archaeological sites at the study area are of low scientific significance is similarly valid because of their disturbed and questionable context, the low number, density and diversity of artefacts, paucity of formal implement types and lack of evidence of use-wear or retouch.



**Figure 32.** Oblique aerial photograph of the study area showing the distribution of isolated finds of stone artefacts along a vehicle track and the significant land surface modification cause by earthworks to form contour banks.

## 6.2 Comparison with the Regional Archaeological Record

The archaeological record of the Griffith region is poorly known. The most relevant previous cultural heritage investigations with which to compare the results of the present study are those conducted by archaeologist Matthew Barber in 1998 and 2000 at Lake Wyangan. Barber (1998, 2000) examined an area on the eastern shore of Lake Wyangan, some 1.5 km southwest of the current study area. He located three stone

artefacts scatters and an isolated find of a stone artefact in exposed sections of a 300 metre long lunette (Barber 1998).

There are distinct environmental differences between the lunette investigated by Barber (1998, 2000) and the sandplain of the present study area. The southern part of Lake Wyangan adjacent to the lunette was a natural ephemeral lake basin before hydrological modification in the 1950s. In comparison, the northern part of Lake Wyangan adjacent to the present study area was a saline playa prior to conversion to a reservoir in 1957 (Murrumbidgee Irrigation Ltd 2006). It is therefore likely to have been much more inhospitable for past human occupation than the southern basin. Additionally, the lunette is only 100-200 m from the lakeshore, whereas the sandplain is at least 400 m from the lakeshore.

Barber's (2000) subsurface archaeological testing showed that there was low stone artefact density across the lunette he examined. He estimated that average stone artefact density was 3.4 artefacts per square metre (Barber 2000). Barber (2000) noted that most stone artefacts were in the top 100 mm ( $n=14$ , 40 %), with 91 % ( $n=32$ ) of artefacts in the top 400 mm. One artefact, a flaked fragment of a quartz pebble, was recovered at 600-700 mm below the surface. However, Barber (2000) was uncertain if this object was *in situ* or bioturbated.

Of the total of 40 artefacts Barber (2000) identified, silcrete was the most common material, but there were also artefacts of fine-grained volcanic material, quartzite and quartz in the assemblage. All the artefacts were small; the average length of the complete flakes was only 13.8 mm and all of them were less than 30 mm (Barber 2000). Only one artefact, a silcrete flake, had evidence of retouch or edge damage.

There is another recorded site (DECC site number 49-2-0016) on the western shore of Lake Wyangan, about 1.5 km southwest of the study area. The site contained silcrete, quartzite and quartz artefacts, which included hammer stones. The artefact density at this site was about one artefact per five square metres with one particular area of two square metres containing six to twelve artefacts (Barber 2000). The artefacts were situated 20 metres from the waters edge and extended for about 1 kilometre along the shoreline.

An extensive artefact scatter (DECC site number 49-2-0015) was also recorded 3 km west of the study area at Wardry Swamp. The site consisted of thousands of artefacts and a possible oven, exposed by some minor sheet erosion. The artefacts included Bondi Points, cores, hammer stones, scrapers, waste flakes, a grinding pestle and pebble choppers. The site was concentrated around the swamp margins (Barber 2000).

## 7 Conclusions and Recommendations

### 7.1 Conclusions

The Lake Wyangan study area contained eleven isolated finds of stone artefacts (DECC sites 49-2-0115—49-2-0125), previously identified by Coulter (2005). Ten of these archaeological sites contained single artefacts and one contained two artefacts. The lithic resources represented were silcrete ( $n=9$ , 75 %) and quartzite ( $n=3$ , 25 %), which were probably derived from nearby outcrops in the surrounding McPherson Range. The stone artefacts were flakes ( $n=7$ , 58 %), angular fragments ( $n=4$ , 33 %) and a flaked piece ( $n=1$ , 9 %), which could be the general debris generated from making and sharpening stone tools. The artefacts lacked informative use-wear or secondary working features.

All of the previously identified isolated finds of stone artefacts occurred along a vehicle track. No additional Aboriginal cultural heritage places or items were encountered during the archaeological subsurface investigations, which include test pits and mechanical scrapes.

The study area is located on the regional sandplain east of Lake Wyangan, which was a saline playa prior to conversion to a reservoir in 1957 and hence not particularly favourable for past human occupation. Moreover, previous earthworks have extensively modified the surface and subsurface of the study area. This past disturbance has included clearing the original vegetation, levelling the land surface, ploughing and deep ripping for horticulture, trenching for irrigation pipes and construction of channels and contour banks for flood irrigation. It is therefore improbable that the distribution of previously identified isolated finds of stone artefacts reflects their deposition by past Aboriginal people, but instead is a result of recent earth disturbance. It is possible that the stone artefacts have been imported to the study area in road gravel spread along the vehicle track.

This study confirms Coulter's (2005) conclusion that "because of the intensive disturbance over the entire study area, none of the finds could be expected to have remained *in situ* and therefore there is no context to any of the sites". Additionally, Coulter's (2005) interpretation that the archaeological sites at the study area are of low scientific significance is similarly valid because of their disturbed and questionable context, the low number, density and diversity of artefacts, paucity of formal implement types and lack of evidence of use-wear and retouch.

It is concluded that the potential for Aboriginal cultural heritage places or items to occur in

the study area is low. Moreover, the high level of previous ground disturbance means that any cultural heritage that could be present would offer little useful archaeological information.

## 7.2 Recommendations

Based on the results of this cultural heritage investigation, it is recommended that:

- the proposed residential subdivision be allowed to proceed without additional cultural heritage investigation;
- if any previously unidentified Aboriginal cultural heritage places or items are encountered during the course of the proposed development all works likely to affect the material shall cease immediately and the NSW Department of Environment and Climate Change's Environmental Line (tel: 131 555) consulted about an appropriate course of action prior to recommencement of work. It is an offence under the NSW *National Parks and Wildlife Act 1974* to disturb or destroy Aboriginal cultural heritage items without written consent of the Director-General of the NSW Department of Environment and Climate Change; and,
- if human skeletal remains are encountered during the course of the proposed development all work in that area must cease. Remains must not be handled or otherwise disturbed except to prevent further disturbance. If the remains are thought to be less than 100 years old the Police or the State Coroners Office (tel: 02 9552 4066) must be notified. If there is reason to suspect that the skeletal remains are more than 100 years old and Aboriginal, the proponent should contact the NSW Department of Environment and Climate Change's Environmental Line (tel: 131 555) for advice.

## 8 References

- Barber, M. (1998). *An Archaeological Survey of Proposed Subdivision at Lake Wyangan, Griffith, NSW*. Report to Griffith Local Aboriginal Land Council.
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- Curr, E. (1886). *The Australian Race: its origins, languages, customs, place of landing in Australia, and the routes by which it spread itself over that continent*. Government Printers, Melbourne
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- Mitchell, T.L. (1839). *Three expeditions into the interior of Eastern Australia*. T. and W. Boone, London.
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- Murrumbidgee Irrigation Limited (2006). *Licence Compliance Report: Environmental Care for Future Generations*. Murrumbidgee Irrigation Limited, Giffith.
- NPWS (1997). *Guidelines for Archaeological Practice in Aboriginal Heritage Management*. National Parks and Wildlife Service, Sydney.
- Pogson, D.J. (1974). *Narrandera 1:250,000 Geological Sheet*. Geological Survey of NSW, Sydney.
- Sturt, C.N. (1833). *Two Expeditions into the interior of Southern Australia during the years 1828, 1829, 1830 and 1831*. Smith Elder, London.

## Appendix A

### Artefact Attributes

Item	GDA94 (Zone 55) mE	GDA94 (Zone 55) mN	L (mm)	W (mm)	T (mm)	Type	Lithology	Shape	Platform	Retouch	Cortex
49-2-0115	410692	6212999	23	16	7	flake	silcrete	expanded	unipolar	na	na
49-2-0116	410698	6212831	30	26	10	angular fragment	silcrete	na	na	na	na
49-2-0117	410700	6212753	48	24	19	flaked piece	silcrete	na	unipolar	na	na
49-2-0118	410717	6212620	30	18	8	angular fragment	quartzite	na	na	na	na
49-2-0119	410750	6212609	22	13	6	angular fragment	silcrete	na	na	na	na
49-2-0120	410757	6212620	14	9	3	flake	silcrete	elongate	Unipolar	na	+
49-2-0121	410954	6212630	19	18	6	flake	silcrete	regular	Unipolar	na	na
49-2-0122	410960	6212633	23	19	6	flake	quartzite	expanded	unipolar	na	na
49-2-0123	410970	6212639	28	28	9	flake	quartzite	expanded	unipolar	na	na
49-2-0124	411019	6212671	28	11	11	angular fragment	silcrete	na	na	na	na
49-2-0125-1	411047	6212691	30	28	8	flake	quartzite	expanded	unipolar	na	na
49-2-0125-2	411047	6212691	21	14	3	flake	silcrete	elongate	Unipolar	na	na

**Table A1.** Attributes of stone artefacts collected from the Lake Wyangan study area.

## Appendix B

### Aboriginal Heritage Impact Permit

# Aboriginal Heritage Impact Permit

National Parks and Wildlife Act 1974 (NPW Act)

Department of Environment & Climate Change NSW



Your reference:

Our reference: AHIMS No. 3156 File / Folio No.>

Document number: 1104371

Contact: Harvey Johnston 03 5021 8914

WATERFRONT (GRIFFITH) PTY LTD,  
ABN 65 097 962 359,  
PO Box 1176,  
GRIFFITH NSW 2680  
STANDARD POST

## ABORIGINAL HERITAGE IMPACT PERMIT

AHIP No: 1104369

Dear Mr Lanza

**RE: Waterfront residential development, Lake Wyangan, Griffith NSW.**

I refer to your application for an Aboriginal Heritage Impact Permit under section 87 of the *National Parks and Wildlife Act 1974* (NPW Act), and accompanying Information provided for the Waterfront residential development, Lake Wyangan received by the Department of Environment and Climate Change (NSW) (DECC) on 17<sup>th</sup> July 2009 respectively.

DECC has considered the application and supporting information provided and has decided to issue an AHIP subject to conditions. The AHIP is attached.

- You should read the AHIP carefully and ensure you comply with its conditions.

You should note that it is an offence under the NPW Act to fail to comply with the conditions of the AHIP. The maximum penalty that a court may impose on a corporation for failing to comply with this AHIP is \$22,000.

If you have any questions, or wish to discuss this matter further please contact Harvey Johnston on 03 5021 8914 or Steve Free on 02 6229 7087.

# Aboriginal Heritage Impact Permit

National Parks and Wildlife Act 1974 (NPW Act)

Department of Environment & Climate Change NSW



  
Mr Michael Hood

Manager Planning & Aboriginal Heritage Section

South

(by Delegation)

Date: 20-Aug-2009

## **Aboriginal Heritage Impact Permit**

Section 87 of the National Parks and Wildlife Act 1974



**AHIP number: 1104369**

**AHIMS number: 3156**

**AHIP Issued To:**

**WATERFRONT (GRIFFITH) PTY LTD,  
ABN 65 097 962 359,  
PO Box 1176,  
GRIFFITH NSW 2680  
STANDARD POST**

**DECC office issuing this AHIP**

Department of Environment and Climate Change (NSW)

Environment Protection and Regulation Group

South Branch

11 Farrer Place

QUEANBEYAN

NSW 2620

[Telephone] 02 6229 7091

[Fax] 02 6229 7001

**Short description of activity and/or location**

Archaeological test excavations in the area of the proposed Waterfront residential Development, Lots 102 and 104, DP1018460, and Lots 309 and 610, DP751743, Griffith City Council.

**Note: A Dictionary at the end of the AHIP defines terms used in this document. Further information about this AHIP is also set out after the Dictionary**

## **Aboriginal Heritage Impact Permit**

Section 87 of the National Parks and Wildlife Act 1974



### **PERMIT TO DISTURB OR EXCAVATE LAND FOR THE PURPOSE OF DISCOVERING ABORIGINAL OBJECTS**

#### **PERMIT TO DISTURB OR MOVE ABORIGINAL OBJECTS ON LAND**

##### **Background**

On 17-Jul-2009 an application was made to the Director-General of the Department of Environment and Climate Change for a permit pursuant to s.87 of the National Parks and Wildlife Act 1974.

##### **Permit issued subject to conditions.**

A permit is issued to:

- (a) disturb or excavate the land as described in Schedule A for the purpose of discovering Aboriginal objects, and
- (b) disturb or move on land Aboriginal objects identified in Schedule C

but only as expressly provided by the conditions of this AHIP.

This permit is issued pursuant to section 87 of the National Parks and Wildlife Act 1974.

  
.....  
Mr Michael Hood

Manager Planning & Aboriginal Heritage Section

South

(by Delegation)

DATED: 20-Aug-2009

## Aboriginal Heritage Impact Permit

Section 87 of the National Parks and Wildlife Act 1974



### CONDITIONS OF AHIP

#### Schedule A: Land to which this AHIP applies

Lots 102 and 104, DP1018460, and Lots 309 and 610, DP751743, Griffith City Council.

#### Schedule B: Protected Aboriginal objects which must not be disturbed or moved

##### Burials

All human remains in, on under the land.

#### Schedule C: Aboriginal objects which may be disturbed or moved

##### Salvage area

Aboriginal objects in, on or under that part of the land which is identified on the map in the application dated 17<sup>th</sup> July 2009 as a salvage area, including the following Aboriginal objects but excluding any Aboriginal objects described in Schedule B.

#### Salvage of specific Aboriginal objects

AHIMS #	Site Name	Site type	Zone	Easting	Northing	DATUM
49-2-0115	GLW1	Artefact	55	410692	6212999	AGD
49-2-0116	GLW2	Artefact	55	410698	6212831	AGD
49-2-0117	GLW3	Artefact	55	410700	6212753	AGD
49-2-0118	GLW4	Artefact	55	410717	6212620	AGD
49-2-0119	GLW5	Artefact	55	410750	6212609	AGD
49-2-0120	GLW6	Artefact	55	410757	6212620	AGD
49-2-0121	GLW7	Artefact	55	410954	6212630	AGD
49-2-0122	GLW8	Artefact	55	410960	6212633	AGD
49-2-0123	GLW9	Artefact	55	410970	6212639	AGD
49-2-0124	GLW10	Artefact	55	411019	6212671	AGD
49-2-0125	GLW11	Artefact	55	411047	6212691	AGD

#### Schedule D: Temporary storage location for certain salvaged objects

Griffith Local Aboriginal Land Council

6 Koorungal Ave

GRIFFITH NSW 2620

## ***Aboriginal Heritage Impact Permit***

Section 87 of the National Parks and Wildlife Act 1974



### **COMMENCEMENT AND OVERSIGHT OF ACTIVITIES RELATING TO THIS AHIP**

#### **Commencement of AHIP**

1. This AHIP commences on the date it is signed unless otherwise provided by this AHIP.

#### **Duration of AHIP**

2. Unless otherwise revoked in writing, this AHIP remains in force for:
  - (a) 1 year from the date of commencement; or
  - (b) the date on which the investigation report is submitted,whichever is the sooner.

#### **Responsibility for compliance with conditions of AHIP**

3. The AHIP holder must ensure that all persons involved in activities or works covered by this AHIP (whether employees, contractors, sub-contractors, agents or invitees) are made aware of and comply with the conditions of this AHIP.

#### **Project manager to oversee the activities relating to this AHIP**

4. The AHIP holder must appoint a suitably qualified and experienced individual who is responsible for overseeing, for and on behalf of the AHIP holder, the activities relating to this AHIP.
5. The individual appointed must be the individual nominated in the application form.
6. If an alternative individual is appointed whilst this AHIP remains in force, the AHIP holder must advise the DECC office in writing within 14 days of the new appointment.

#### **Notification of commencement of work**

7. Prior to the proposed commencement of activities authorised by this AHIP, the AHIP holder must give the DECC office written notice of the proposed commencement date of those activities.

### **GENERAL OPERATIONAL CONDITIONS**

#### **Activities must not disturb or excavate any land**

8. The AHIP holder must not disturb or excavate any land for the purpose of discovering an Aboriginal object, except as otherwise expressly provided by a condition of this AHIP.

## **Aboriginal Heritage Impact Permit**

Section 87 of the National Parks and Wildlife Act 1974



### **Activities must not move or disturb Aboriginal objects**

9. The AHIP holder must not move or disturb any Aboriginal objects, except as otherwise expressly provided by a condition of this AHIP.

### **Activities must be in accordance with methodology**

10. Activities must be carried out in accordance with the methodology specified in the application to which this AHIP applies, except as otherwise expressly provided by a condition of this AHIP.

### **AHIP does not authorise damage under s.90 of the Act**

11. Nothing in this AHIP authorises any person to damage an Aboriginal object in, on or under the land.

## **PROTECTION OF ABORIGINAL OBJECTS**

### **Protected Aboriginal objects**

12. The AHIP holder must not move or disturb protected Aboriginal objects specified in Schedule B.
13. To the fullest extent possible, each protected Aboriginal object must be clearly marked so as to provide a clear visual marker to persons on foot or in vehicles in the vicinity of that Aboriginal object.
14. The AHIP holder must ensure that persons entering the land such as employees, contractors, sub-contractors, agents and invitees have a copy of any Map referred to in Schedule B.
15. Appropriate sediment control measures must be installed, operated and maintained so as to prevent any disturbance of a protected Aboriginal object.
16. Vehicles must not be driven on or in the immediate vicinity of a protected Aboriginal object.

## **SALVAGE WORK AND RELATED ACTIONS**

### **Salvage of Aboriginal objects**

17. The AHIP holder may disturb or move Aboriginal objects in, on or under each salvage area for the purpose of their salvage, other than protected Aboriginal objects in the salvage area.
18. The salvage work must occur in accordance with the application dated 17<sup>th</sup> July 2009 and the associated Research Methodology except as otherwise expressly provided by a condition of this AHIP.

## ***Aboriginal Heritage Impact Permit***

Section 87 of the National Parks and Wildlife Act 1974



### **Temporary storage of salvaged Aboriginal objects**

19. Any Aboriginal objects which are to be moved as part of the salvage works must be moved as soon as practicable to a temporary storage location nominated in Schedule D, pending any agreement reached as to the long term management of the salvaged Aboriginal objects.
20. The AHIP holder is responsible for the protection of any salvaged Aboriginal objects stored at each temporary storage location.

### **ANALYSIS OF ABORIGINAL OBJECTS**

21. This AHIP does not authorise the movement or disturbance of any Aboriginal objects for the purpose of invasive analysis.
22. The AHIP holder must ensure that any disturbance or movement of any Aboriginal objects for the purpose of non invasive analysis is minimised to the fullest extent practicable.

### **NOTIFICATION AND REPORTING CONDITIONS**

#### **Human remains**

23. If any human remains are located in, on or under the land, AHIP holder must:
  - (a) not further disturb or move these remains;
  - (b) immediately cease all work at the particular location;
  - (c) notify DECC's Environment Line on 131 555 and the local police as soon as practicable and provide any available details of the remains and their location; and
  - (d) not recommence any work at the particular location unless authorised in writing by the DECC.

#### **Incidents which may breach the Act or AHIP**

24. The AHIP holder must notify the DECC office in writing as soon as practicable after becoming aware:
  - (a) any contravention of s90 or s86 of the Act not authorised by an AHIP;
  - (b) any contravention of the conditions of this AHIP.

#### **Reports about incidents which may breach the Act or AHIP**

25. Where an authorised officer reasonably suspects that an incident which may have breached the Act or AHIP has occurred, the officer may request in writing that the AHIP holder prepare a written report about that incident. The report must detail:
  - (a) the nature of the incident;

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- (b) the nature and location of relevant Aboriginal objects or Aboriginal places, referring to and providing maps and photos where appropriate;
- (c) the impact of the incident on Aboriginal objects or Aboriginal places;
- (d) any conditions of an AHIP which may have been breached; and
- (e) the measures which have been taken or will be taken to prevent a recurrence of the incident.

26. The report must be provided to the DECC office by the due date specified by the authorised officer.

### **Report about investigation of Aboriginal objects under s.87**

27. If investigation is authorised by this AHIP, the AHIP holder must prepare an investigation report after completing the investigation. The report must:
- (a) provide a short summary of the report;
  - (b) in relation to any identified Aboriginal objects which remain in situ on the land, provide a brief overview of the type and locations of those Aboriginal objects and any of those objects which either the AHIP holder or, if applicable, any representatives from local Aboriginal groups consider to be of particular significance;
  - (c) detail any potential archaeological deposits;
  - (d) detail and evaluate the effectiveness of any monitoring activities and mitigation measures that were implemented.

### **Due date for report**

28. The investigation report must be provided to the DECC office by 17<sup>th</sup> July 2009.

### **Report about disturbance or movement of Aboriginal objects under s.87**

29. If any disturbance or movement of Aboriginal objects is authorised by this AHIP, the AHIP holder must provide to the DECC office a salvage report as soon as practicable after completing the salvage. The report must include:
- (a) details of the nature and type of Aboriginal objects disturbed or moved at each salvage area, and the location to and from which the objects were moved;
  - (b) a description of the methods of excavation, movement and salvage used;
  - (c) a plan of each salvage area and location from and to which the objects were moved;
  - (d) any ongoing consultation with or involvement of any local Aboriginal groups in relation to this AHIP;
  - (e) detail and evaluate the effectiveness of any monitoring activities and mitigation measures that were implemented;
  - (f) produce and review the effectiveness of any management plan which was in place;
  - (g) detail the results of any non invasive analysis carried out on the Aboriginal objects;

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- (h) If any Aboriginal objects were moved to a temporary storage location, a description of the nature and types of Aboriginal objects which are now located at the temporary storage location,
- (i) detail any long term management arrangement for the salvaged Aboriginal objects;
- (j) detail any community collection undertaken by the local Aboriginal groups.

### **Due date for report about salvage or movement**

30. The salvage report must be provided to the DECC office by 17<sup>th</sup> July 2009.

### **Provision of copies of reports to local Aboriginal groups**

31. The AHIP holder must provide a copy of each report provided to the DECC under this AHIP to each local Aboriginal group, within 14 days after each report is provided to the DECC.

### **Copy of this AHIP to be provided to local Aboriginal groups**

32. The AHIP holder must provide a copy of this AHIP to each local Aboriginal group, within 14 days of receipt of the AHIP from DECC.

## **OTHER GENERAL CONDITIONS**

### **Indemnity**

33. The AHIP holder agrees to indemnify and keep indemnified, the Crown in right of NSW, the Minister administering the Act, the Director-General of DECC, and their employees, agents and contractors, in the absence of any willful misconduct or negligence on their part, from and against all actions, demands, claims, proceedings, losses, damages, costs (including legal costs), charges or expenses suffered or incurred by them resulting from
- (i) any damage or destruction to any real or personal property; and
  - (ii) injury suffered or sustained (including death) by any persons arising out of or in connection with any activities undertaken pursuant to this AHIP.

### **Release**

34. The AHIP holder agrees to release to the full extent permitted by law, the Crown in right of NSW, the Minister administering the Act, the Director-General of DECC, and their employees, agents and contractors, in the absence of any willful misconduct or negligence on their part, from all suits, actions, demands and claims of every kind resulting from
- (i) any damage or destruction to any real or personal property; and
  - (ii) injury suffered or sustained (including death) by any persons arising out of or in connection with any activities undertaken pursuant to this AHIP.

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### **Ongoing obligation to comply with due dates**

35. Where a condition of this AHIP specifies a date by which something must be done or ceased to be done, the AHIP holder has a continuing obligation to comply with that condition after that date (subject to any written revocation or variation of the AHIP by DECC).

### **Written notice**

36. Any requirement to provide written notice to the DECC office in this AHIP may be complied with by faxing the notice to the DECC office's fax number or by sending by registered post to the DECC office's address. The DECC office's contact details are specified at the front of this AHIP.

### **DICTIONARY**

In this AHIP, unless the contrary is indicated the terms below have the following meanings:

<b>Aboriginal object(s)</b>	has the same meaning as in the Act
<b>Aboriginal place</b>	has the same meaning as in the Act
<b>Act</b>	means the National Parks and Wildlife Act 1974
<b>AHIMS</b>	means the Aboriginal Heritage Information Management System maintained by DECC
<b>AHIP holder</b>	means the person listed on the cover page under the heading "AHIP issued to"
<b>Application</b>	means the completed application form and all other documents in written or electronic form which accompanied the application when it was lodged or which were subsequently submitted in support of the application.
<b>Authorised officer</b>	means an employee of the DECC who is appointed as authorised officer under s.156B of the Act
<b>Community collection</b>	means the recovery of Aboriginal objects by representative(s) of the Aboriginal community
<b>Damage</b>	in relation to an Aboriginal object or Aboriginal place, unless otherwise specified in this AHIP, includes destruction and defacement
<b>DECC</b>	Department of Environment and Climate Change (NSW)
<b>DECC office</b>	means the office listed on the cover page of this AHIP
<b>Director-General</b>	means the Director-General of DECC
<b>Invasive analysis</b>	Any analysis of an Aboriginal object that damage the Aboriginal object
<b>Land</b>	means the land described at Schedule A
<b>Local Aboriginal groups</b>	means the following the following groups:

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Miyagan Aboriginal development Association

3/5 Wiradjuri Place

GRIFFITH NSW 2680

Griffith Local Aboriginal Land Council

6 Koorlingal Ave

GRIFFITH NSW 2680

**Non-invasive  
analysis**

Any analysis of an Aboriginal object that does not damage the  
Aboriginal object

**Protected  
Aboriginal  
objects**

means those Aboriginal objects which are described in Schedule B

**Salvage**

the recovery of Aboriginal objects in accordance with the  
archaeological methodology accompanying the application, as modified  
by the conditions of this AHIP.

**Salvage area**

means an area described as a salvage area in Schedule C

**Standards and  
Guidelines Kit**

means the Aboriginal Cultural Heritage Standards and Guidelines Kit  
(NSW National Parks and Wildlife Service 1997) as amended or  
replaced from time to time

**Temporary  
storage location**

means a location specified at Schedule D

### **INFORMATION ABOUT THIS AHIP**

#### **Responsibilities of AHIP holder**

The AHIP holder is responsible for ensuring the AHIP holder's employees, contractors, sub-contractors agents, invitees are made aware of and comply with the conditions of this AHIP.

#### **Penalties for breach of the Act**

Significant penalties can be imposed by a court for failure to obtain or breach of an AHIP. The DECC can also issue penalty notices.

#### **Responsibility for obtaining all approvals and compliance with applicable laws**

The AHIP holder is responsible for obtaining and complying with all approvals necessary to lawfully carry out the work referred to in this AHIP, including but not limited to development consents.

Permit to disturb or excavate land for the purpose of discovering  
Aboriginal objects

Permit to disturb or move Aboriginal objects on land

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Department of Environment & Climate Change NSW



### **Other relevant provisions of the National Parks and Wildlife Act**

Newly Identified Aboriginal objects need to be notified to the Director-General under s.91 of the Act using the form available on [www.environment.nsw.gov.au](http://www.environment.nsw.gov.au)

Stop work orders and interim protection orders may be issued in certain circumstances to protect Aboriginal objects or places.

### **Obligation to report Aboriginal remains under Commonwealth laws**

The AHIP holder may have additional obligations to report any discovery of Aboriginal remains under the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Commonwealth).

### **Exercise of investigation and compliance powers**

Officers appointed or authorised under the Act may exercise certain powers and functions, including the power to enter land.

### **Duration of AHIP**

This AHIP remains in force for the period specified in the AHIP.

### **Variation of AHIP**

The AHIP holder may apply to the DECC office in writing for a variation of any conditions of an AHIP. Requests for variations may need to be accompanied by evidence of further consultation with interested parties including Aboriginal stakeholders and in some cases may include payment of fees. The conditions of an AHIP may be varied at any time at the discretion of the Director-General. The AHIP holder may appeal a decision of the Director General to vary the conditions of the AHIP.

### **Transfer of AHIP**

An AHIP is not transferable. The surrender or revocation of an existing AHIP could occur at the same time an AHIP is issued to a new AHIP holder.

### **Revocation of AHIP**

An AHIP may be revoked at any time at the discretion of the Director General. Prior to revoking the AHIP, the AHIP holder will be given notice and an opportunity to make submissions. The AHIP holder will be notified in writing of the final decision. The AHIP holder may appeal a decision to revoke the AHIP.

### **Entry to land**

An AHIP does not automatically entitle its holder to enter land for the purpose of conducting work related to the AHIP. The AHIP holder is responsible for obtaining permission to enter land from the owner and/or occupier of the land.

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### **AHIP does not authorise damage, destruction or defacement of Aboriginal objects**

It is an offence to knowingly damage, destroy or deface or knowingly cause or permit the damage, destruction or defacement of an Aboriginal object or Aboriginal place without consent. A consent under s.90 of the Act is required.

### **Disclosure of information pursuant to lawful requirement**

This AHIP does not prevent the disclosure of any information or document in DECC's possession in accordance with any lawful requirement.

### **Making copies of reports**

By providing a report, the AHIP holder acknowledges that DECC can use the information in that report to inform its regulatory functions, note details of that report in AHIMS and include a copy of the report in its library which may be available to members of the public.

DECC is able to make copies of any reports provided to DECC under this AHIP.

## **ATTACHMENT 4 - WATER CYCLE MANAGEMENT STUDY**