

APPENDIX J -ABORIGINAL CULTURAL HERITAGE ASSESSMENT





Luddenham Advanced Resource Recovery Centre

Aboriginal cultural heritage assessment

Prepared for Coombes Property Group & KLF Holdings December 2020

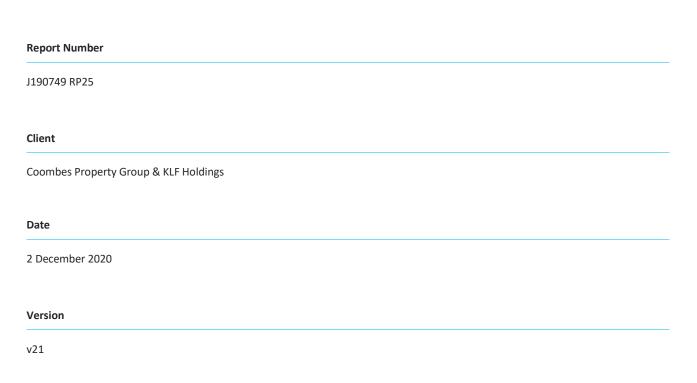
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Luddenham Advanced Resource Recovery Centre

Aboriginal cultural heritage assessment



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Executive Summary

ES1 Overview

CFT No 13 Pty Ltd, a member of Coombes Property Group (CPG), has recently acquired the property at 275 Adams Road, Luddenham NSW (Lot 3 in DP 623799, 'the subject property') within the Liverpool City Council municipality. The subject property is host to an existing shale/clay quarry. CPG is seeking development consent for the construction and operation of an Advanced Resource Recovery Centre (ARRC).

EMM Consulting Pty Limited (EMM) has been engaged to prepare an Aboriginal cultural heritage assessment (ACHA) for the project. The ACHA has been prepared for the development application and accompanying environmental impact statement (EIS) for the ARRC. It addresses specific requirements provided in the Secretary's environmental assessment requirements (SEARs) issued on 24 April 2020. The aim of the ACHA is to assess the Aboriginal cultural heritage values within the proposed disturbance footprint in accordance with SEARs and to present appropriate management measures in consultation with local Aboriginal community representatives.

ES2 Archaeological summary

Desktop research and an archaeological investigation of the subject property identified the following:

- there is one registered AHIMS site (#45-5-2280), an artefact scatter, within the subject property ; however, the survey confirmed that the registered coordinates do not correspond with the location of the fenced area where the subject property is physically located which is outside the ARRC site, 'the project area';
- a survey identified that the riparian corridor of Oaky Creek, outside the project area, is the area most likely to have potential archaeological deposit in the subject property; although no Aboriginal cultural material was located during the survey;
- the project area has previously been subject to a range of moderate and high levels of ground disturbance as a result of modern activities. This is especially the case on the southern and eastern boundaries of the subject property, where the landscape has been altered significantly by quarrying and other earthworks, stockpiling or waste disposal between 2014 and 2017 and the addition of stormwater retention ponds in the eastern portion of the subject property. There is negligible potential for surface and/or subsurface material to be present in the southern and eastern boundaries of the subject property;
- a level, grassed area, within 200 m of Oaky Creek in the project area, has experienced some historic disturbance from de-vegetation and use as a grazing paddock, but is considered to have moderate potential for Aboriginal artefacts because of its proximity to Oaky Creek. Consequently, a test excavation program was undertaken in this part of the project area. Test excavation recovered seven artefacts from 42 test excavation units (50 cm x 50 cm) and determined that there is a low-density artefact scatter across the project area (LQ1); and
- LQ1 is assessed as having low archaeological significance because of the sparse and irregular distribution of artefacts.

ES3 Aboriginal consultation

The Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010c) were used for the project. Nineteen Aboriginal parties registered their interest in the project and are referred to as registered Aboriginal parties (RAPs). RAPs were invited to provide cultural information about the project area, information about the project and fieldwork methods for review. Eight RAPs provided responses and expressed their support for the proposed methodology.

On 29 June 2020, an archaeological survey and meeting with RAPs was organised to discuss the project and the potential impacts to Aboriginal cultural heritage values. Eight representatives from different RAPs attended. The purpose of the survey was to discuss information about the project, conduct a survey of the project area, and allow Aboriginal parties to identify and discuss their cultural concerns and perspectives in order to inform recommendations for this ACHA.

During the survey and discussion, RAPs raised several concerns regarding the loss of land to development and the impact this has on Aboriginal cultural heritage. The RAPs were in agreement that as the ground surface exposure and visibility was too low for the identification of Aboriginal objects, test excavation would be necessary. Test excavation was seen by the RAPs as an opportunity to find out more information about Aboriginal heritage and culture, particularly as the surrounding land continues to be developed and this information is increasingly lost. As a result of the survey and site meeting, a test excavation program was undertaken to characterise the subsurface potential for Aboriginal artefacts. RAPs have requested that the seven artefacts recovered from the test excavation be retained at the Gandangara Local Aboriginal Land Council (GLALC) Keeping Place.

In response to the findings of the updated ACHA, Darug Custodian Aboriginal Corporation (DCAC) reiterated that while the site is deemed to have low archaeological significance, they consider it to be of high cultural significance as it reflects the connection Aboriginal people have had to this landscape for thousands of years and the way that sites are all interconnected.

During the survey, AHIMS site #45-5-2280 was visited and RAPs agreed that it is important to protect known sites, and that the corridor along the creek has high potential for cultural heritage and therefore needs to be avoided and protected.

ES4 Impact assessment

There are no previously registered Aboriginal sites within the project area. The location of AHIMS site (#45-5-2280), which is incorrectly recorded on AHIMS, is outside the project area and is currently protected by fencing.

The ARRC site is currently a cleared paddock sown with exotic grasses and has a small grove of trees. It is within 200 m of an ephemeral, third order stream, Oaky Creek. As the character and actual levels of disturbance could not be established through desktop study and survey alone, a test excavation programme was undertaken from 25–27 August 2020 to better characterise the archaeological resource within this area. Over the three days, 42 test excavation units were dug and the soil wet sieved, resulting in the recovery of seven artefacts. This result confirmed that the extent of impacts from the development to Aboriginal cultural heritage values is low.

A summary of the significance and impacts to these two sites is summarised in Table ES1.

Table ES1	Site significance,	impact and	management summary

AHIMS#	Site name	Site type	Significance rating	Type of harm	Degree of harm	Consequence of harm	Overall management strategy
45-5-2280	Oaky Creek 1	Artefact scatter	Low	None	None	No loss of value	Avoidance
ТВС	LQ1	Artefact scatter	Low	Direct	Total	Total loss of value	Unmitigated impact

ES5 Management measures

- 1. AHIMS site #45-5-2280 will continue to be avoided and protected by fencing.
- 2. The corrected coordinates for AHIMS site #45-5-2280 have been updated in the AHIMS database.
- 3. The riparian corridor along the western bank of Oaky Creek will continue to be avoided.
- 4. Site LQ1 (#45-5-5360), identified through archaeological test excavation, is of low archaeological significance and no further archaeological investigation or salvage is warranted. This site will receive unmitigated project impacts.
- 5. A Site Card and Aboriginal Site Impact Recording form for LQ1 has been completed and submitted to the AHIMS Registrar.
- 6. RAP site officers requested that the artefacts recovered during the test excavation (LQ1) be retained at the GLALC Keeping Place. Consultation with RAPs in conjunction with their review of the ACHA, indicated RAP support for the proposal to retain the artefacts at the GLALC Keeping Place. A Care Agreement should be lodged with Heritage NSW for the recovered objects.
- 7. If works are to proceed, the following should occur:
 - a) In the event that unexpected Aboriginal objects, sites or places are discovered in the project area, it is a requirement that Heritage NSW is notified of the existence of Aboriginal objects as soon as practicable after they are first identified. Under s85A of the *National Parks and Wildlife Act 1974* (NPW Act), Aboriginal objects remain the property, and under the protection of, the Crown until formal transfer to a person or persons of a class prescribed by the regulations occurs.
 - b) In the event that known or suspected human skeletal remains are encountered within the project area, the immediate vicinity should be secured, appropriate procedures followed, and the Police and Heritage NSW be contacted for advice.

Table of Contents

Exe	cutive	Summary		ES.1
1	Intro	duction		1
	1.1	Overview	V	1
	1.2	The subje	ect property	2
	1.3	Project o	overview	2
	1.4	Area defi	initions	3
	1.5	Assessme	ent requirements	6
	1.6	Legislativ	ve context	6
	1.7	Authorsh	nip and acknowledgements	7
2	Abori	ginal cons	ultation	8
	2.1	Key findi	ngs	8
	2.2	Summary	y of consultation process	8
	2.3	Aborigina	al stakeholder feedback	10
		2.3.1	Response to methodology	10
		2.3.2	Archaeological survey and meeting 29 June 2020	11
		2.3.3	Draft ACHA reviews	13
3	Envir	onmental	context	15
	3.1	Key findi	ngs	15
	3.2	Rationale	2	15
	3.3	Landform	n and topography	15
	3.4	Hydrolog	37	16
	3.5	Geology	and soils	16
	3.6	Vegetatio	on	17
	3.7	Land use	history and disturbance	19
4	Ethno	ographic co	ontext	23
	4.1	Local Bac	ckground	23
5	Archa	eological o	context	24
	5.1	Key findi	ngs	24
	5.2	Regional	archaeological overview	24
	5.3	Local stu	dies	25

	5.3.1	Archaeological assessment of the project area (Dean-Jones 1991)	25
	5.3.2	Due diligence assessment of the subject property (EMM 2020)	27
	5.3.3	Assessment and management recommendations regarding #45-5-2280 (Umwelt 2000)	27
	5.3.4	Badgerys Creek airport site	28
	5.3.5	Aboriginal cultural heritage assessment (Navin Officer 2016)	28
	5.3.6	Due diligence heritage assessment for stockpiling site at 285 Adams Rd, Luddenham (Epic 2016)	31
	5.3.7	Mamre South Precinct State Significant Development (Biosis 2019a)	31
	5.3.8	Mamre Road Precinct: Aboriginal Heritage Study (EMM 2020a)	31
	5.3.9	Oakdale South Estate (Artefact 2015) and Oakdale West Estate (Artefact 2017)	32
5.4	Aborigina	al Heritage Information Services (AHIMS)	32
5.5	Predictive	e model	35
	5.5.1	Summary of background information	35
	5.5.2	Predictive model results	35
Archa	eological s	survey	37
6.1	Overview	,	37
	6.1.1	Survey limitations	37
6.2	Survey m	ethod, site identification and site recording	38
6.3	Survey co	overage data	38
	6.3.1	Rationale	38
	6.3.2	Field survey coverage results	38
6.4	Results		39
Test e	excavation		47
7.1	Overview	,	47
7.2	Test exca	vation methods	47
	7.2.1	Test excavation unit layout	48
7.3	Results		49
	7.3.1	Soils	50
	7.3.2	Artefacts	54
7.4	Discussio	n	55
The a	rchaeologi	cal resource	57
8.1	Assessme	ent of archaeological potential	57
Signifi	icance asso	essment	59

	9.1	General	59
	9.2	Significance assessment	60
10	Impac	t assessment	62
	10.1	Proposed works	62
	10.2	Impacts to known sites	62
	10.3	Cumulative impacts	62
	10.4	Intergenerational equity	63
11	Mana	gement	64
	11.1	Aboriginal heritage management framework	64
	11.2	Management measures	64
Refe	erences		66

Appendices

Appendix A AHIMS	A.1
Appendix B Historic aerial photographs	B.1
Appendix C Aboriginal consultation	C.1
Appendix D Test excavation methodology	D.1

Tables

Table ES1	Site significance, impact and management summary	3
Table 1.1	SEARS for the assessment of Aboriginal cultural heritage	6
Table 1.2	Commonwealth and State legislation relevant to the project	6
Table 2.1	Consultation process summary	8
Table 2.2	The registered Aboriginal parties for the project	10
Table 2.3	Summary of responses to the proposed methodology	10
Table 2.4	Site survey attendance	11
Table 2.5	Summary of issues raised by RAPs and how they are addressed	12
Table 2.6	RAP submissions for draft reporting	13
Table 2.7	Summary of RAPs responses to the updated draft ACHA and how they are addressed	13
Table 3.1	Aerial photograph review	19
Table 5.1	AHIMS site results	33
Table 5.2	Predictions for the project area	35
Table 6.1	Survey coverage	39

Table 7.1	Test excavation results	49
Table 7.2	Artefacts recovered	54
Table 9.1	A summary of criteria used to assess the cultural significance (OEH 2011, 8–10)	59
Table 9.2	Significance assessment of LQ1	60
Table 10.1	Site significance, impact and management summary	62

Figures

Figure 1.1	Location and project area	4
Figure 1.2	Proposed SSD project layout	5
Figure 3.1	Landscape, hydrology and soils	18
Figure 5.1	AHIMS search results	34
Figure 6.1	Survey results	41
Figure 7.1	Test excavation unit layout	56
Figure 8.1	Archaeological potential	58

Plates

Plate 3.1	The subject property c. 1970s. View south, south-east. The project area is the cleared paddock	in
	the foreground with the grove of trees to the left. The horse yards in the centre of the photograp	зh
	are where the quarry is today. 2	1

- Plate 3.2c. 1970s. View south-east towards the project area (circled), with the trotting track in the
background and horse yards to the south. The riparian corridor along Oaky Creek is only a narrow
strip of trees and a branch of the creek flows through the middle of the trotting track.22
- Plate 5.1 Map of the project area showing land use in 1991. Note that the map is rotated, and north is to the right. 27
- Plate 5.2Zones and sites identified in the 1997 EIS assessment with predicted subsurface Aboriginal
archaeological potential. Location of project area circled in black.30
- Plate 6.1 Project area (ARRC site). View east
- Plate 6.2 Incorrect location of AHIMS site #45-5-2280 as recorded on the AHIMS database. View north 42
- Plate 6.3Looking north-east towards correct location of AHIMS site #45-5-2280, situated between two dams
visible to the left and right of the photograph42
- Plate 6.4Fenced area around correct location AHIMS site #45-5-2280. Negligible surface visibility due to a
deep layer of Casuarina needles. View north43
- Plate 6.5 Grove of trees to the east of the grassed paddock. View north from the quarry bund wall 43
- Plate 6.6 On the eastern side of the paddock looking south towards the quarry bund wall. Waste mound in the foreground 44

37

Plate 6.7	Fill used to create a level surface for the road. Raised embankment beside dam in the middle gro and grove of trees behind. View north-west	und 44
Plate 6.8	Introduced gravels on the track that runs from the quarry around the eastern boundary of project area. View south-east	the 45
Plate 6.9	Track running along northern boundary of the project area. View west	45
Plate 6.10	Entrance to the subject property on Adams Road. Looking west towards Cosgroves Creek on other side of the road	the 46
Plate 7.1	Wet sieving on the northern edge of the project area. View south	48
Plate 7.2	View north from the quarry bund wall across the project area (Oaky Creek is to the right). Addition test excavation units being dug at 1BS, 2AA and 1AA (from left to right)	onal 49
Plate 7.3	Soil profile of shallow test excavation unit (TP9B). Photograph and section drawing.	51
Plate 7.4	TP3C. Clay concentration increasing with depth.	52
Plate 7.5	TP5C contained a high percentage of ironstone gravels and redeposited clay.	53
Plate 7.6	Silcrete flakes, recovered from test excavation units 1B, 1C, 1E (retouch) and 9B	54
Plate 7.7	IMT flakes, complete and distal, recovered from test excavation units 2B and 7C.	55

1 Introduction

1.1 Overview

CFT No 13 Pty Ltd, a member of Coombes Property Group (CPG), has recently acquired the property at 275 Adams Road, Luddenham NSW (Lot 3 in DP 623799, 'subject property') within the Liverpool City Council municipality. The subject property is host to an existing shale/clay quarry.

CPG owns, develops, and manages a national portfolio of office, retail, entertainment, land, and other assets. The company's business model is to retain long-term ownership and control of all its assets. CPG has the following staged vision to the long-term development of the subject property:

- <u>Stage 1</u> Quarry Reactivation: **Solving a problem**. CPG intends to responsibly avoid the sterilisation of the remaining natural resource by completing the extraction of shale which is important to the local construction industry as raw material used by brick manufacturers in Western Sydney. Following the completion of approved extraction activities, the void will be prepared for rehabilitation.
- <u>Stage 2</u> Advanced Resource Recovery Centre and Quarry Rehabilitation: **A smart way to fill the void**: CPG in partnership with KLF Holdings Pty Ltd (KLF) and in collaboration between the circular economy industry and the material science research sector, intends to establish a technology-led approach to resource recovery, management, and reuse of Western Sydney's construction waste, and repurposing those materials that cannot be recovered for use to rehabilitate the void. This will provide a sustainable and economically viable method of rehabilitating the void for development.
- <u>Stage 3</u> High Value Employment Generating Development: **Transform the land to deliver high value agribusiness jobs**. CPG intends to develop the rehabilitated site into a sustainable and high-tech agribusiness hub supporting food production, processing, freight transport, warehousing, and distribution, whilst continuing to invest in the resource recovery research and development (R&D) initiatives. This will deliver the vision of a technology-led agribusiness precinct as part of the Aerotropolis that balances its valuable assets including proximity to the future Western Sydney Airport (WSA) and Outer Sydney Orbital.

This report relates to a new development application relating to the delivery of Stage 2 above (the project).

KLF is an Australian-owned and operated waste management company that operates two strategically located resource recovery and recycling facilities in Sydney; one at Camellia and another at Asquith. KLF has 20 years' experience in the waste recycling and resource recovery industry. KLF facilities are licensed by the NSW Environment Protection Authority (EPA) and have full International Organisation for Standardisation (ISO) accreditation.

EMM Consulting Pty Limited (EMM) has been engaged by CPG and KLF to prepare an Aboriginal cultural heritage assessment (ACHA) for the project. The ACHA has been prepared for the development application and accompanying environmental impact statement (EIS) for the ARRC (Figure 1.2). It addresses specific requirements provided in the Secretary's environmental assessment requirements (SEARs) issued on 24 April 2020. The aim of the ACHA is to assess the Aboriginal cultural heritage values within the proposed disturbance footprint in accordance with the SEARs.

The objectives of the ACHA were to:

- identify Aboriginal cultural heritage values relevant to the project area which include:
 - Aboriginal objects and sites;

- Aboriginal socio-cultural or historic values which might not be related to Aboriginal objects; and
- areas of archaeological sensitivity.
- assess the significance of Aboriginal objects, sites and locations identified in the course of the archaeological investigations and through Aboriginal community consultation;
- assess the impact of the project on identified Aboriginal cultural heritage values; and
- propose appropriate management measures for potentially impacted Aboriginal cultural heritage values in response to their assessed significance.

1.2 The subject property

There is an existing clay and shale quarry on the subject property approved under Development Consent DA-315-7-2003, as modified. The quarry is currently inactive. CPG and KLF (the 'applicants') have commenced the application process to modify the quarry's consent to allow quarry operations to recommence, with the primary intention of changing the approved access to the subject property to allow quarry operations (Modification 5, also referred to as MOD 5).

It is proposed to develop an advanced resource recovery centre (ARRC) within the same lot to the north of the existing quarry void. The ARRC site (the project) is shown in Figure 1.2.

The project is integral in achieving the intended future commercial/industrial land use for the subject property as the project provides a commercially viable means to infill the quarry void (subject to separate development consent). This will support the Western Sydney Airport and ongoing development of the Western Sydney Aerotropolis.

A new State significant development (SSD) consent under Division 4.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) is required to establish the ARRC. On 24 April 2020, the Department of Planning, Industry and Environment (DPIE) issued Secretary's Environmental Assessment Requirements (SEARs) for the environmental impact statement (EIS) for the project. The SSD consent application number is SSD-10446.

1.3 Project overview

In summary, the project will involve:

- construction and operation of an advanced construction and demolition resource recovery centre;
- accepting and processing up to 600,000 tonnes per annum (tpa) of waste for recycling;
- despatch of approximately 540,000 tpa of recycled product;
- despatch of approximately 60,000–120,000 tpa of unrecyclable material either to an offsite licensed waste facility or to the adjacent quarry void (the later will be subject to separate approval);
- if required, upgrade the access road from the subject property to Adams Road;
- use of the access road from subject property to Adams Road;
- the ARRC will not accept putrescibles, liquid or hazardous waste; and
- the ARRC will operate up to 24 hours a day, 7 days per week.

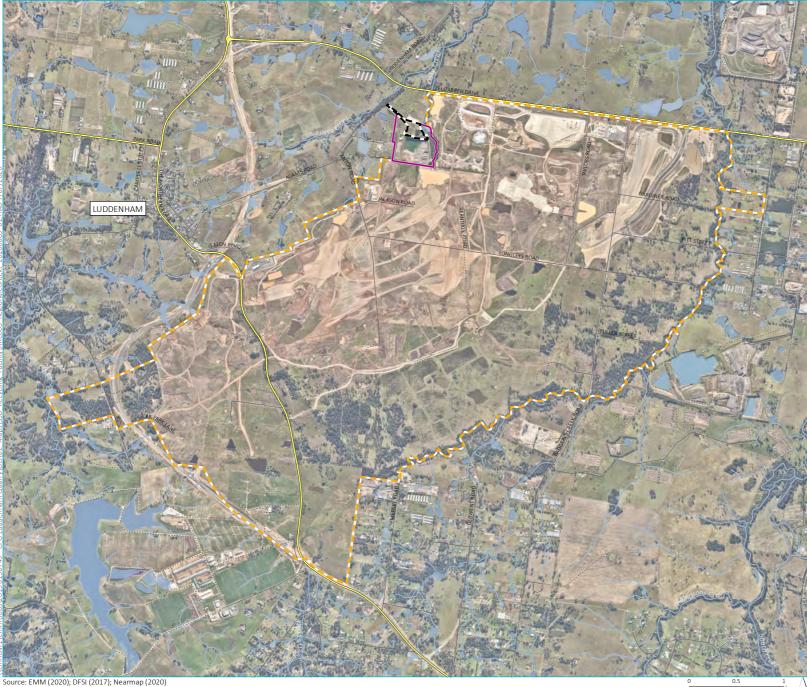
The ARRC will accept general solid waste comprising building and demolition waste as well as selected commercial and industrial waste. No special, liquid, hazardous, restricted solid water, putrescible solid waste, or odorous waste will be accepted at the ARRC.

The vast majority of materials accepted will be recovered, the remaining minor amount (10–20%) of unrecyclable materials will be disposed of at an offsite licensed landfill or to the quarry void on the subject property as part of rehabilitating the void.

The proposed project layout is shown in Figure 1.2.

1.4 Area definitions

The subject property is Lot 3 in DP 623799. Within the northern half of the subject property, the ARRC site, 'the project area', encompasses the proposed ARRC development footprint and access road, as shown in Figure 1.1 and Figure 1.2.





KEY

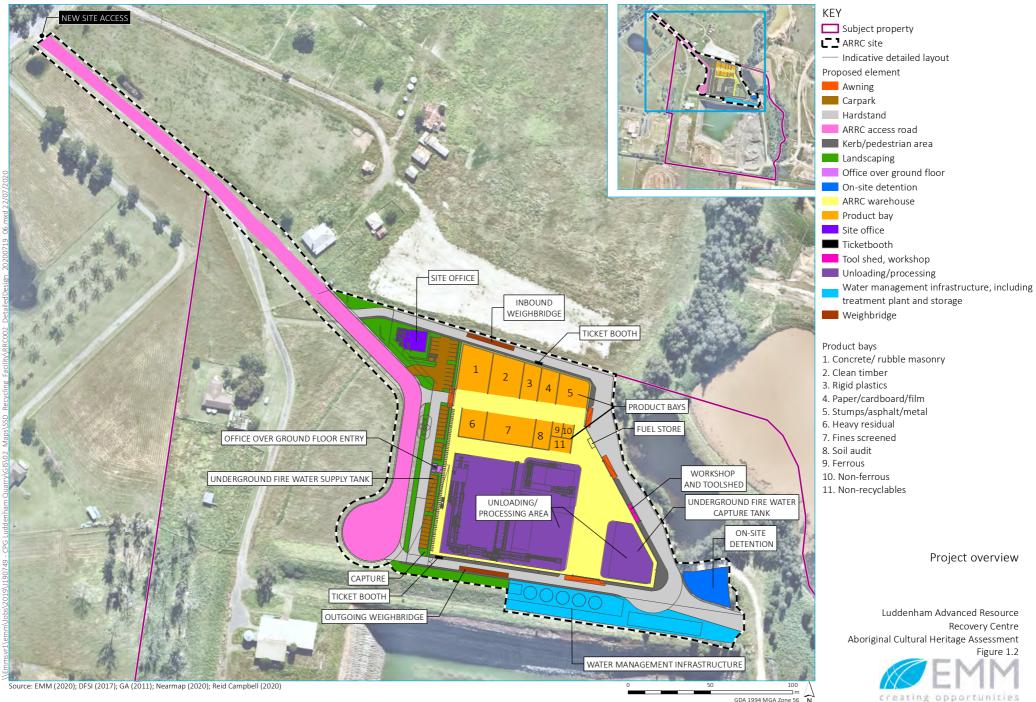
- Subject property
- ARRC site (project area)
- C Western Sydney Airport
- ----- Major road
- Minor road
- ····· Vehicular track
- NPWS reserve (see inset)
- State forest (see inset)

Location, lot boundary and project area

Luddenham Advanced Resource Recovery Centre Aboriginal Cultural Heritage Assessment Figure 1.1



GDA 1994 MGA Zone 56



GDA 1994 MGA Zone 56 N

1.5 Assessment requirements

The assessment was prepared in accordance with the requirements of the SEARs for the project, issued on 24 April 2020. The SEARs identify matters which must be addressed in the EIS. This report addresses SEARs relating to Aboriginal heritage and has been prepared in accordance with the following NSW government guidelines:

- Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011);
- Aboriginal Cultural Heritage Consultation Requirements for Proponents (DECCW 2010); and
- Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010) ('the Code').

Table 1.1 lists the requirements for the project relevant to this assessment and references where they are addressed in this report.

Table 1.1 SEARS for the assessment of Aboriginal cultural heritage

Requirement	Section addressed
DPIE	
DPIE Biodiversity Conservation Division (now Heritage NSW)	
Cultural heritage and Aboriginal Cultural Heritage — including:	This report.
 Identifying and describing the Aboriginal cultural heritage values that exist across the development and documenting these in an Aboriginal cultural assessment report (ACHAR); 	
 Consultation with Aboriginal people must be undertaken and documented in ACHAR; and 	Section 2 of this report
A description of the impacts on Aboriginal cultural heritage values.	Section 10 of this report

1.6 Legislative context

There are several Commonwealth and State Acts (and associated regulations) that manage and protect Aboriginal cultural heritage. These are summarised in Table 1.2.

Table 1.2 Commonwealth and State legislation relevant to the project

Legislation	Description	Relevant to the project?	Details
Commonwealth			
Environment Protection and Biodiversity Conservation Act 1999	Recognises sites with universal value on the World Heritage List (WHL). Protects Indigenous heritage places with outstanding heritage value to the nation on the National Heritage List (NHL), and significant heritage value on the Commonwealth Heritage List (CHL).	No	There are no Indigenous heritage places within the project area that are listed on the WHL, NHL, or the CHL.

Table 1.2 Commonwealth and State legislation relevant to the project

Legislation	Description	Relevant to the project?	Details
Native Title Act 1993	Administers rights and interests over lands and waters by Aboriginal people. Provides for negotiation and registration of Indigenous Land Use Agreements (ILUAs).	No	There are no ILUAs within the project area.
	Often used in NSW to identify relevant stakeholders for consultation.		
Aboriginal and Torres Strait Islander Heritage Protection Act 1984	Preserves and protects areas and objects of particular significance to Aboriginal people that are under threat from injury or desecration.	No	There are no areas or objects within the project area subject to a Declaration under the Act.
State			
Environmental Planning and Assessment Act 1979	Requires environmental impacts, including to Aboriginal heritage, to be considered in land use planning. Provides for the development of environmental planning instruments, including State Environmental Planning Policies and Local Environmental Plans.	Yes	The proposed development is being assessed as an SSD project under Part 4, Division 4.7, of this Act, and is subject to project-specific environmental assessment and reporting requirements. These requirements (SEARs) stipulate that Aboriginal heritage impact assessment is required (in accordance with standard Heritage NSW procedures and guidelines) to assess whether the project has the potential to impact on Aboriginal objects, sites, or places of Aboriginal heritage significance.
National Parks and Wildlife Act 1974	Provides blanket protection for all Aboriginal objects and declared Aboriginal places. Includes processes and mechanisms for development where Aboriginal objects are present, or where Aboriginal Places are proposed for harm.	Yes	While elements of this Act do not apply to SSD (such as the requirement of Aboriginal heritage impact permits (AHIPs) projects, the potential impact on Aboriginal objects generally still requires consideration as a part of the assessment needs of such projects.

1.7 Authorship and acknowledgements

This report was written by Pamela Chauvel (Consultant Archaeologist, BA Archaeology), who also inspected the project area; and it was reviewed by Ryan Desic (Associate Archaeologist – Heritage Team Leader, BA Hons Prehistoric and Historical Archaeology).

EMM would like to thank registered Aboriginal parties (RAPs) for their involvement in ongoing consultation, knowledge sharing and fieldwork assistance. This includes RAP site officers Raymond Adams, Kyle Bates, Tylah Blunden, Phil Boney, Daniel Chalker, Darren Duncan, Jedda Khan, Phil Khan, Lana Wedgwood, Kyle Whitton and Dominic Wilkins.

EMM would also like to thank the archaeologists on the test excavation team: Anthony Dakhoul (EMM), Waleed Al-Mendwi and Justine Channing.

2 Aboriginal consultation

2.1 Key findings

- The assessment adopted the processes and methods outlined in Heritage NSW's Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW 2010).
- The consultation process initially identified 61 Aboriginal stakeholder organisations who may have had an interest in the project (Appendix C). Following notification of these organisations, 19 responded as wishing to be registered for subsequent consultation through the project. These groups have been consulted (Table 2.1 and Table 2.2).
- A site meeting and archaeological survey on 29 June 2020 included seven of these organisations.
- At the site meeting, RAPs supported test excavation which was then taken up by EMM and the client to assist them in assessing the cultural significance of the area.

A complete log of actions and correspondence regarding Aboriginal community consultation is included in Appendix C.

2.2 Summary of consultation process

Aboriginal consultation for this project has been undertaken in accordance with procedures set out in the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW 2010). These guidelines identify a fourstage process which is summarised for the project in Table 2.1.

The consultation process for this project had two aims:

- 1. To comply with the DPIE consultation procedures to obtain input on the ACHAR process; and
- 2. To identify cultural places and intangible values that may be affected by the project.

Table 2.1 Consultation process summary

tage	Desc	ription	Date started Date completed Notes		
1	Notif	ication and registration. This process involves:			
	a)	pre-notification – identification of the Aboriginal individuals and/or communities relevant to the project area by contacting several state government agencies.			
		Government Agency Pre-Notification	24 April 2020	8 May 2020	Additional details provided in Appendix C
		Advertisement in the Western Weekender	8 May 2020	22 May 2020	Additional details are provided in Appendix C

Table 2.1 Consultation process summary

tage	Descri	iption	Date started Date completed		Notes
	b)	notification – contacting all Aboriginal individuals and/or communities identified in (1) to determine their interest in being consulted during the project. This includes direct communication and the placement of advertisements in local media seeking further expressions of interest from Aboriginal individuals and/or communities that may have been missed through (1).	8 May 2020	22 May 2020	Additional details are provided in Appendix C
	c)	registration – those Aboriginal individuals and/or communities that wish to be consulted become a 'registered' Aboriginal party (RAP).	8 May 2020	25 May 2020	Additional details are provided in Appendix C
	d)	Provision of information to DPIE	25 May 2020	-	Additional details are provided in Appendix C
2/3	– brie	 Presentation of project information/assessment methodology briefing RAPs about the project and scope of any Aboriginal heritage assessment and investigations. 		19 June 2020	Additional details are provided in Appendix C
	a proc reque This st poten with t	hering information about cultural significance – facilitating cess to gather cultural information from RAPs and sting feedback about proposed assessment methodologies. tage also sought upfront input and discussion around tial impacts to cultural materials and mitigation options he RAPs prior to developing the ACHA. This is often taken either onsite at the end of any field program and/or t of 4.			
	Site m	eeting and inspection/archaeological survey.	22 June 2020	29 June 2020	Additional details are provided in Table 2.5
	Presei	ntation of test excavation methodology.	17 July 2020	31 July 2020	Additional details are provided in Appendix C
4	and co	t review – the RAPs are provided an opportunity to review omment upon the draft ACHAR, to contribute input into the Il findings, significance and management of cultural ge.			
	Draft	version 1: prior to test excavation.	17 July 2020	14 August 2020	Additional details
		t of the ACHA was provided to RAPs, noting that test ation would be completed in the near future.			are provided in Table 2.6
		version 2: post test excavation, an updated draft ACHA was ded to RAPs.	10 September 2020	8 October 2020	Additional details are provided in Table 2.6 and Table 2.7

Table 2.2The registered Aboriginal parties for the project

Name	Name
Gandangara Local Aboriginal Lands Council	Yulay
Deerubbin Local Aboriginal Land Council	Wurrumay
Didge Ngunawal Clan	Butucarbin Heritage
Goodradigbee	Guntawang Aboriginal Resources
Kamilaroi-Yankuntjatjara Working Group	A1 Indigenous Services
Wailwan Aboriginal Group	Darug Custodian Aboriginal Corporation
Waawaar Awaaa Aboriginal Corporation	Aboriginal Consultative Committee
Dharug Ngurra Aboriginal Corporation	Barraby Cultural Services
Galamaay	Yurrandaali
Cubbitch Barta	

2.3 Aboriginal stakeholder feedback

2.3.1 Response to methodology

On 22 May 2020, EMM issued a letter to all RAPs with the purpose of:

- presenting information regarding the project;
- outlining the proposed assessment methodology for their review and comment; and
- inviting RAPs to share cultural knowledge relevant to the project area and its surrounds.

The RAPs were given 28 days to provide comment on the proposed methodology. A summary of the responses to the proposed methodology are provided in Table 2.3.

Table 2.3Summary of responses to the proposed methodology

Organisation	Contact	Comment	Response to comment
Didge Ngunawal Clan	Paul Boyd	Supported the methodology.	-
Goodradigbee	Caine Carroll	Supported the methodology.	-
Kamilaroi- Yankuntjatjara Working Group	Phil Khan	Phil Khan stated that the project area was highly significant to Aboriginal People of the past as it was a hunting and camping area that existed along the small waterways. He believes that there could be burial grounds and there are areas that need to be looked at. Recommended that a walkover be done.	While the likelihood of encountering a burial is considered very low considering the level of previous land use and disturbance across the project area, if evidence of burials is identified during test excavation or during the construction phase of the project, work will cease immediately and the protocol outlined in Section 11.2 will be followed.
			A site walkover was conducted with RAPs on 29 June 2020 (see Section 2.3.2).

Table 2.3Summary of responses to the proposed methodology

Organisation	Contact	Comment	Response to comment
Barraby Cultural Services	Lee Field	Supported the methodology.	-
Yurrandaali	Bo Field	Would like to see test excavation. Bo Field believed it would be worthwhile given the findings at the adjacent Badgery's Creek airport site.	Test excavation was undertaken to characterise the subsurface potential for Aboriginal artefacts (see Section 11.2).
A1 Indigenous Services	Carolyn Hickey	Supported the methodology.	-
Guntawang Aboriginal Resources Incorporated	Wendy Morgan	Supported the methodology.	-
Liverpool Council Aboriginal Consultative Committee (ACC)	Norma Burrows	If any Aboriginal objects are found on the ARRC site during the development of the project, ACC members should be notified of the findings and a meeting held to discuss options for salvage or reburial. Recommended a meeting to discuss cultural values.	
Waawaar Awaaa	Rodney Gunther	Supported the methodology	-
Wailwan	Phil Boney	Believes test excavation is needed because of proximity to the creek and the potential for impacts from the ARRC development.	An archaeological sensitivity map was prepared (see Figure 8.1) taking into account proximity to Oaky Creek and used to inform the test excavation.
			Test excavation was undertaken to characterise the subsurface potential for Aboriginal artefacts (see Section 11.2).

2.3.2 Archaeological survey and meeting 29 June 2020

On 29 June 2020, an archaeological survey and meeting with the RAPs was organised to discuss the project and the potential impacts to Aboriginal cultural heritage values. Eight RAP groups were invited to participate in the survey. The RAPs attending the survey are listed in Table 2.4.

Table 2.4Site survey attendance

Name	Group	Name	Group
Darren Duncan	Gandangara Local Aboriginal Land Council (GLALC)	Tylah Blunden	Darug Custodians Aboriginal Corporation
Phil Khan	Kamilaroi-Yankuntjatjara Working Group	Raymond Adams	Yurrandaali
Jedda Khan	Kamilaroi-Yankuntjatjara Working Group	Phil Boney	Wailwan Aboriginal Group
Daniel Chalker	Cubbitch Barta	Kyle Whitton	Goodradigbee

The purpose of the survey was to discuss information about the project, conduct a survey of the project area, and allow Aboriginal parties to identify and discuss their cultural concerns and perspectives in order to inform recommendations for this ACHA. A summary of the RAPs comments and how they are addressed is included in Table 2.5.

Table 2.5Summary of issues raised by RAPs and how they are addressed

RAP comment	Response to comment
A number of RAPs raised their concern regarding the loss of land to development in the local area and the impact this has on Aboriginal cultural heritage.	Test excavation was undertaken in order to characterise the subsurface potential for Aboriginal artefacts and allow for a more informed assessment of the potential impacts from the proposed development.
The presence of two kangaroos on the bund wall during discussions was observed and RAPS identified this as a reminder for the types of cultural practices that would have occurred in this landscape.	EMM acknowledge this observation.
RAPs were in agreement that as the ground surface exposure and visibility was too low for the identification of Aboriginal objects, test excavation would be necessary in order to confirm the presence of artefacts within the project area.	Test excavation was undertaken to characterise the subsurface potential for Aboriginal artefacts (see Section 11.2).
Test excavation was seen by the RAPs as an opportunity to find out more information about Aboriginal heritage and culture, particularly as the surrounding land continues to be developed and this information is increasingly lost.	Test excavation was undertaken to characterise the subsurface potential for Aboriginal artefacts. The results of these findings will be publicly available and contribute to our understanding of how Aboriginal people in the past used the landscape (see Section 11.2).
Darren Duncan (GLALC) advocated for monitoring during construction works in order to identify material that is brought up to the surface.	The test excavation program was sufficient to characterise the subsurface potential for artefacts in terms of depth, distribution, and density. It supported initial predictions that there is potential for Aboriginal artefacts within the area of moderate disturbance within the project area. Test excavation identified a low-density artefact scatter (LQ1). Given the low number of artefacts recovered, no further post approval work, such as monitoring, or a controlled salvage archaeological excavation are necessary.
 A number of RAPs have been working on the archaeological excavations at Badgery's Creek airport site. They observed that the landscape of the project area is similar and that if the soil profiles are also similar, then: the A horizon is likely to be shallow; and 	A desktop review of archaeological studies in the local area indicates that artefacts may be present in low concentrations throughout the landscape; however, they are most likely to occur in areas within 200 m of reliable streams and on land that has not been subject to extensive disturbance.
 artefacts may be found across the landscape. 	While much of the project area has been heavily disturbed, test excavation of an area of moderate disturbance revealed a sparse distribution of artefacts, predominantly within the top 10 cm of soil, and that the A horizon was 12–20 cm deep. The results of the test excavation program are outlined in Section 7.
Phil Khan noted that burials may occur in the area as, although the soils are shallow, burials could involve placing the deceased in a pit that had previously been dug out and used as a firepit.	No evidence of burials was identified during test excavation. If evidence of a burial is identified during the construction phase of the project, work will cease immediately and the protocol outlined in Section 11.2 will be followed. The likelihood of encountering a burial is assessed to be very low considering the level of previous land use and disturbance across the project area, and the results of test excavation.

Table 2.5 Summary of issues raised by RAPs and how they are addressed

RAP comment	Response to comment
Tylah Blunden made the observation that we need to look at the landscape as a whole, rather than looking at individual sites in isolation, and look to the connections between them. Therefore, while it is important to protect known sites, the corridor along the creek that has high potential for cultural heritage needs to be avoided and protected.	In addition to the fence around AHIMS site #45-5-2280, the riparian corridor along Oaky Creek will be avoided by the project.

2.3.3 Draft ACHA reviews

RAP feedback to the test excavation methodology, draft ACHA and updated ACHA (following test excavation) is presented in Table 2.6. Responses to RAP comments on the updated draft ACHA are presented in Table 2.7.

Table 2.6 RAP submissions for draft reporting

Stage	RAP comment
Stage 2/3: Methodology for test excavation distributed to RAPs for review. Sent to RAPs on 17 July 2020.	Six written responses to the draft methodology and one phone call were received. All respondents supported the test excavation methodology.
Stage 4: Draft ACHA (pre-excavation) distributed to RAPs for initial review during public exhibition of the project EIS. Sent to RAPs on 17 July 2020.	Three written responses to the draft ACHA (pre-excavation) were received. All expressed support for the findings of the ACHA and for the proposed test excavation.
Stage 4: Updated ACHA sent to RAPs after completion of the test excavation.	Four written responses to the updated ACHA were received plus one acknowledgement that the report had been received.
	All four respondents supported the recommendation that the artefacts be kept at Gandangara LALC. In addition, DCAC said they also supported the artefacts being placed within the fenced area within the subject property.
	RAP comments and EMM's responses are outlined in Table 2.7.

 Table 2.7
 Summary of RAPs responses to the updated draft ACHA and how they are addressed

	Response to comment
6 October 2020 Darug Custodian Aboriginal Corporation (DCAC)	
We would like to add that our sites are a complex and not all separate sites and recommend that the connections are interpreted throughout the project. Information gathered during these projects is of high significance, once our sites are gone there is no other evidence of the sites or connections. This area has shown in recent excavations and surveys that this is a Darug landscape and there are still numerous parts of our histories to be recorded. Darug people stayed in this area to present times, the oral histories of this area support the families staying here for	significance as it reflects the connection Aboriginal people have had to this landscape for thousands of years and the way that sites are all interconnected.

thousands of years.

Table 2.7Summary of RAPs responses to the updated draft ACHA and how they are addressed

	Response to comment
ES3 Aboriginal consultation	See above.
I would like if there was a comment here to state that this site is of high significance to Aboriginal people of this country. I believe why this comment is important to be present under that heading Is because is following heading under 'ES2 Archaeological summary' which states the site to have low Archaeological significance. This could possibly be true, but it is important for the document to acknowledge the high significance immediately before or after Archaeological significance.	
As Darug Custodians has stated previously this site is extremely important as our country has been torn apart for 232 years and continues to. At the rate of development there will be no land left for our future children and elders. The artefact scatter present across the site shows that Aboriginal peoples were and still are present across these lands. It is important to remember that all of these sites are connected and not separated into pieces, that was the colonisers doings.	
Table ES1 Site significance, impact and management summary Within the table there is a column that is stated low significance, I am assuming that is for Archaeological significance? There should also be a column stating Cultural significance and value.	Section 9.2 has been updated to include social significance.
3.7 Land use history and disturbance In this section it would be nice to add the care that Darug people had for the land for 10's of thousands of years.	DCAC's comment has been included in Section 3.7.
Within this document the number of groups for consultation is high with many groups not from this area, we do not support personal profit groups and also do not support any input that they have into the recommendations. Apart from the amount of people consulted and the comments provided by Tylah Blunden representing Darug Custodians Aboriginal Corporation we support the summary/ ACHAR and ATR report.	EMM follows the guideline for consultation with Aboriginal stakeholders within NSW. Heritage NSW advised of 58 Aboriginal parties who have requested to be consulted on projects within the Liverpool LGA. Nineteen of these groups registered for consultation on this project and were therefore included in the process.

3 Environmental context

3.1 Key findings

This assessment identified the following key findings:

- The project area is characterised by undulating Cumberland Plain topography that is widely documented to have been used by Aboriginal people in the past. There is no evidence of significant elevation, escarpments or exposed sandstone, which prevents a range of archaeological site types from being present.
- The project area is bounded to the east by Oaky Creek, a third order stream, that would have been attractive to Aboriginal people in the past.
- Historical land use and disturbance has occurred over the last 200 years which has resulted in de-vegetation and modification of waterways (usually in the form of dams). Much of the subject property is disturbed by the quarry and stockpiles; however, the project area, to the north of the quarry, has primarily been used as a paddock and has experienced less disturbance.
- There is limited evidence of remnant vegetation present, with the possible exception of the riparian corridors of Oaky Creek.

3.2 Rationale

The environmental context is used to predict the spatial distribution, preservation and likelihood of archaeological material. Landscape features were an important factor for the choice of camping, transitory and ceremonial areas used in the past by Aboriginal people. Natural resources, including raw stone materials and local flora and fauna, would have provided food, tools and material resources. These resources are linked to the topography, hydrology, geology and soil types in the region. Additionally, natural and cultural (human-made) site formation processes influence the present location of archaeological material (eg if moved through disturbance), along with its preservation and archaeological integrity.

A landscape consisting of suitable topography, hydrology, geology and soils has strong links with natural resources that would have been available to, and sought after, by Aboriginal people. Flora and fauna would have provided food, tools and ceremony; proximity to fresh water was necessary for life and growing crops, as well as gathering fish and eels. Landscape features, such as sandstone overhangs, were useful for shelter; stone artefacts were manufactured from raw stone material that was collected from quarry sites; and stone arrangements relied on the landscape.

3.3 Landform and topography

The project area is situated within the Sydney Basin bioregion and Cumberland Lowlands region. It is characterised by gently undulating rises with broad rounded crests and ridges in a rain shadow area below the Blue Mountains. Local topography is characterised by gently undulating rises with local relief between 10–30 m, slopes generally between 5–10% gradient, and broad rounded crests and ridges with convex upper slopes grading into concave lower slopes. The project area is approximately 62–68 metres Australian Height Datum (AHD) and, consistent with the regional topography, comprises a gently sloping rise (0–10°), with an easterly aspect sloping towards Oaky Creek.

The project area is located on Wiannamatta Group shales formed on the Ashfield and Bringelly Shales. There is no outcropping of the underlying rock; therefore, Aboriginal site types which are commonly found on sandstone formations, such as grinding grooves and rockshelters, are unlikely to occur.

3.4 Hydrology

The project area is located within the upper reaches of the Hawkesbury River catchment, adjacent the Nepean catchment boundary. The eastern boundary of the project area follows Oaky Creek, a third order stream, which runs from south to north to join Cosgroves Creek outside the project area, to the north of Elizabeth Drive. There are no distinct channels or drainage lines in the project area with rainfall runoff occurring as sheet flow which runs to the north-east corner of the subject property into Oaky Creek following the natural slope. Oaky Creek at the subject property location is ephemeral and only flows because of prolonged rainfall in the upper catchment (EMM 2020b). A dam has been constructed on Oaky Creek in the north-east corner of the project area and collects surface water runoff from the property.

Hydrological features are the most likely to indicator of archaeological potential within the project area. Access to water and the natural resources associated with it will have dominated the distribution of habitation throughout the area. This is corroborated by previous archaeological works in the area and ethnographic accounts of the area.

3.5 Geology and soils

Soil landscapes and their boundaries provide pre-defined areas that are classified by several geographic features, and which are informative for the archaeological investigation. They provide localised information including landform patterns, soils, geology, rock outcrop percentage, land use and vegetation. This information provides another layer to categorise the landscape for the predictive model, additional to what a topographic description can provide. Soil landscape information builds on underlying geology and describes the depths of residual soils and colluvial soils and identifies areas that are characterised by erosion or skeletal soils and exposed bedrock versus those that may contain a deeper profile where cultural material may be buried.

The project area is situated on the Blacktown (bt) soil and Second Ponds Creek (spz) soil landscapes which are defined in the *Soil and Land Resources of the Hawkesbury-Nepean Catchment* (DECCW 2008). Blacktown soil landscape comprises the western portion of the project area (Figure 3.1). Geology typically consists laminate shales and siltstone, with underlying sandstone of fine to medium grained quartz. Outcropping does not occur naturally on the surface however can become exposed as a result of extensive land use disturbances and accelerated erosion. Soils comprise up to 30 centimetres (cm) friable loam to clay loam (A1 Horizon), overlying 10–30 cm of clay loam to silty clay loam hard-setting A2 Horizon. Subsoils are 40–100 cm of light to medium clay B2 Horizon subsoils with fine to coarse gravel size shale fragments. Silty clay to heavy clay usually occurs as deep subsoil above shale bedrock (B2 or C Horizon).

The eastern part, and majority of the project area is situated on the Second Ponds Creek landscape which is found on the footslopes and plains on colluvium/alluvium and Wianamatta Group Shale in the Cumberland Plain. Soils are yellow podzolic rock outcropping is nil. Local relief of this landform is low (5–30 m) with slopes of less than 3%.

Testing undertaken by Minesoils (2020) to collect soil samples for the Mod 5 development at Luddenham Quarry, investigated an area adjacent to the project area, to the immediate south-west. Auger test results found an A1 horizon of up to 10 cm of very dark brown sandy clay loam, with 35% coarse fragments (10–60 mm), then a gradual boundary with the A2 horizon. The extent of the A2 horizon is approximately 20 cm of very dark grey silty clay loam with fewer and smaller coarse fragments, coming down onto a clear boundary with medium to heavy clay (B horizon). A second augur, 50 m south of the first augur, found an even shallower A-horizon of 10 cm of silty clay loam above heavy clay (B horizon).

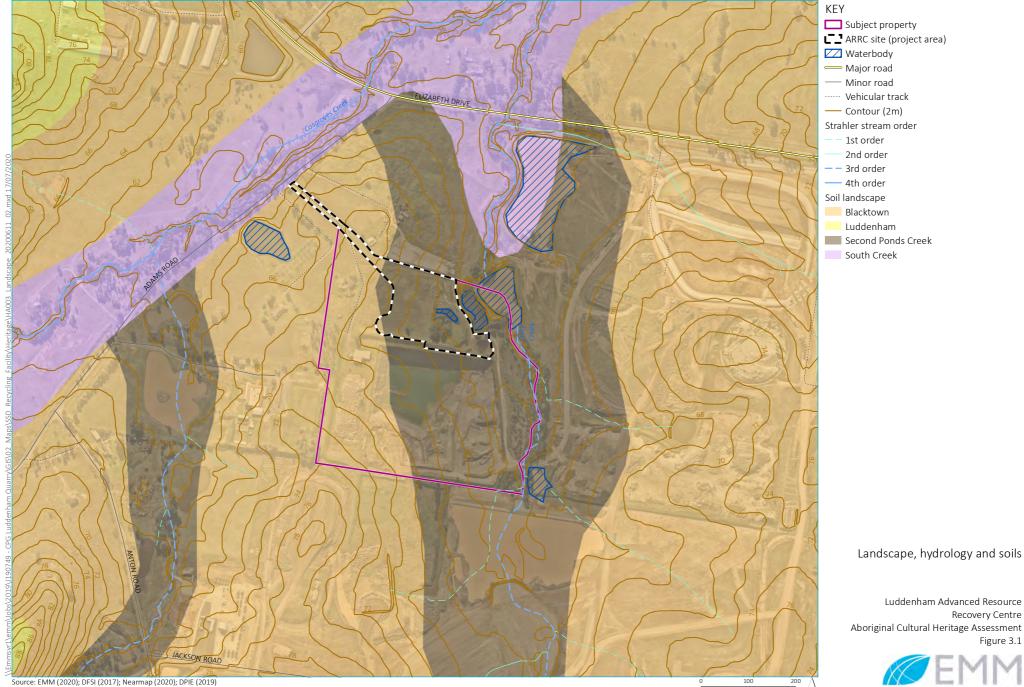
Low relief and low slope areas would have originally presented as favourable for Aboriginal occupation; however, for the same characteristics these areas have been targeted for agricultural land use and as such exhibit extensive levels of disturbance.

3.6 Vegetation

The project area is within the Sydney Basin, Cumberland Interim Biogeographic Regionalisation of Australia region. The locality is considered highly fragmented with native vegetation often occurring in isolated patches surrounded by a matrix of agricultural land.

Prior to agricultural and subsequent quarrying land use, the area would have comprised cleared open forest and woodland. Remnants of Cumberland Plain Woodland occur on the eastern margin of the project area. This plant community type was dominated by Eucalyptus trees including *Eucalyptus tereticornis* (forest red gum), *E. crebra* (narrow-leaved ironbark), *E. moluccana* (grey box) and *E. maculata* (spotted gum).

Today the project area has been heavily impacted by pastoral activities, particularly land clearance and grazing. It is characterised by a grassy paddock, dominated by exotic plant species, and a small grove of Swamp Oak. This group of trees is visible in aerial photography from the mid-twentieth century but may not represent remnant vegetation old enough to have the potential for cultural scarring (see Plate 6.5). The remaining vegetation along Oaky Creek forms a riparian corridor of Swamp Oak Floodplain Forest along the eastern boundary of the project area.



GDA 1994 MGA Zone 56 N



Recovery Centre Aboriginal Cultural Heritage Assessment Figure 3.1



3.7 Land use history and disturbance

Prior to European occupation, Darug people cared for the land for thousands of years. Following settlement, early land use consisted of forestry and grazing in the wood and scrubland of the Cumberland Plain.

Settlement expansion and the search for suitable agricultural land soon led to the establishment of Parramatta and Liverpool townships, driving the development of Sydney's west as a key area for pastoral and agricultural exploitation. Land use and associated disturbance of the project area has accelerated from the early nineteenth century onwards, with the project area included in an initial land grant to John Blaxland of 6,710 acres in 1813.

Aerial photographs of the subject property were obtained from 1947 to the present day. Land use and disturbance of the project area and surrounding landscape are summarised in Table 3.1. Aerial photographs are included in Appendix B.

In summary, the main disturbance to the project area has been through land clearance and de-vegetation, along with some water management strategies to the east of the project area and the addition of introduced fill for road base.

Table 3.1Aerial photograph review

Year	Project area	Surrounding Area
1947	The project area is generally undeveloped, grass covered with some small stands of trees. An access track is visible through the subject property, from south-east to north-west.	The surrounding area is generally rural/agricultural. Adams Road and Elizabeth Drive are visible to the west and north, respectively. Some agricultural activities are visible on the property to the immediate north (and appear to partially encroach on the northern boundary of the subject property), possibly the turf farm that is incorrectly located in the archaeological assessment (Dean-Jones 1991), see Plate 5.1. Several buildings are visible, with some potential equipment and/or materials storage. A surface water retention pond is visible at the north-eastern corner of the property and outside the property to the north-east.
1955	There are no substantial changes at the project area, although the access track is no longer visible.	There are no substantial changes in the surrounding areas. The agricultural activities (turf farm) to the immediate north appear to have reduced and are no longer encroaching on the northern property boundary.
1961	A surface water retention pond is visible at the north-eastern boundary of the property. No other significant changes were observed at the project area.	No substantial changes observed in the surrounding area. A trench is visible to the immediate north of the property access road.
1969	No significant changes were observed at the project area.	Development is visible to the north-east of the property and appears industrial/agricultural in nature. No other significant changes observed.
1970	The surface water retention pond at the north-east has reduced in size, likely due to evaporation of water.	No significant changes observed in the surrounding area.
1975	The surface water retention pond appears to have expanded. Some indications of development are visible at the south-western portion of the project area and areas to the south and west (within the property).	A residential property is visible to the west of the property, and an access track leading from Adams Road to the south-western corner of the property. Development on the southern portion of property is visible, with several small structures in a grid pattern observed. Photographs (Plate 3.1 and Plate 3.2) show these to be horse yards associated with horse breeding and the trotting track, visible on the eastern side of the subject property.

Table 3.1Aerial photograph review

Year	Project area	Surrounding Area
1984	No substantial changes were visible within the project area.	The grid pattern and structures on the southern portion of the property has expanded and a building, consistent with the current agricultural shed on the property is visible.
		An unsealed oval track is present to the immediate south-east of the property.
		An oval track and development of rural residential properties is apparent to the south.
		A large surface water retention pond is present to the north-east.
1991	No substantial changes observed within the project area.	Ground disturbance is visible inside the oval track to the south-east of the property.
	The property access track has moved to its current position, in the north-west portion of the property.	Development of a sealed oval track and a large surface water retention pond to the south of the property are visible, with additional rural and agricultural development also apparent.
1994	No substantial changes observed within the project area.	No significant changes observed on the southern portion of the property, with the exception of the land inside the oval track, where possible waste disposal is observed.
		Development to the south-west of the property is apparent, in the location of the current Workers Hubertus Country Club.
		A small area of excavation adjacent to the property access road, partially filled with water, is observed.
		Upgrades to Elizabeth Drive to the north.
2005	No significant changes observed within the project area.	No significant changes observed in the surrounding area.
		The Workers Hubertus County Club has been constructed.
2009	No significant changes observed within the project area.	The farming operations on the southern portion of the property are no longer operational, and a large area of this property is undergoing excavation, with exposed soils and stockpiles visible.
		An access road leading from Elizabeth Drive to the south-eastern portion of this property is visible.
2011	Some areas of ground disturbance (exposed soil, and small retention ponds) visible in the south-eastern portion of the project area.	Large excavations are visible in the eastern portion of the southern portions of the property. The remaining farming infrastructure has been removed from this area and ground disturbance is apparent.
		Excavations and/or stockpiles are also visible on land to the south-east of the project area. Some minor excavations and stockpiles are also visible to the south.
2014	Disturbed ground in the south-east is now grass covered, with mounds /stockpiles also visible and grass covered.	Excavations in the southern portion of the property have continued to expand.
		A large number of stockpiles were visible to the south of the property.
2017	An unsealed access track is present at the eastern boundary of the project area.	Excavations in the southern portion of the property have continued to expand. Stockpiles are visible to the west of the excavations.
	A number of stockpiles or waste materials are visible in the north-eastern portion of	•
	the project area. A small detention pond is visible immediately to the south of the stockpiles.	On the properties to the south of the property, land is partially revegetated. The oval track also appears in a state of disrepair.

Table 3.1Aerial photograph review

Year	Project area	Surrounding Area
2020	The stockpiles have been removed and the project area is generally grass covered.	The excavation on the portion of the property immediately to the south of the project area has expanded and filled with water. The quarry appears to be inactive.
	The access track is still visible but appears to be less frequently used and no longer extends onto the property immediately to the north of the project area.	The stockpiles to the west of the excavations remain visible. Significant earthworks are visible on properties to the east and south of the project area, presumed to be associated with construction of the WSA.



Plate 3.1 The subject property c. 1970s. View south, south-east. The project area is the cleared paddock in the foreground with the grove of trees to the left. The horse yards in the centre of the photograph are where the quarry is today.



Plate 3.2 c. 1970s. View south-east towards the project area (circled), with the trotting track in the background and horse yards to the south. The riparian corridor along Oaky Creek is only a narrow strip of trees and a branch of the creek flows through the middle of the trotting track.

4 Ethnographic context

4.1 Local Background

Regional studies indicate that Aboriginal people first visited and occupied the Sydney Basin between ~45–35,000 years ago. Populations remained low in the late Pleistocene and were focussed along the banks of major river systems, such as the Hawkesbury-Nepean River. After ~18,000 years ago, there is an increasing archaeologically observed presence across the basin, including the initiation of a number of sites, such as Burrill Lake and Bass Point. Increasing numbers and diversity of sites in the last 10,000 years, and especially the last 5,000 years, suggests a significant population established across most environments of the basin; and it is during this time that the socio-economic-and religious systems observed at contact likely developed.

Information about the socio-cultural structure of Aboriginal society prior to European contact largely comes from ethno-historical accounts made by colonial settlers. These accounts and observations were often made after significant social disruption due to disease and displacement. As a result, this information is often contentious, particularly in relation to language group boundaries. Therefore, it is likely that language group boundaries were far more diffuse and complex than the arbitrary demarcations drawn by colonial observers.

Over thirty separate Aboriginal groups populated the wider Sydney Basin in 1788, each with their own country, practices, diets, dress, and dialects. We now know of these groups as 'clans' and each identified with broader cultural-linguistic groups known as 'tribes'. The project area sits within Darug clan country which extended from around Parramatta through to the Blue Mountains and from the Hawkesbury river in the north to Appin in the south. The many rivers acted as natural demarcation of this area and the flat terrain of the Cumberland plain was favourable to the livelihood of the peoples.

The inland clans fished for mullet and eels in rich lagoons, but much of their food came from yams dug out from the riverbanks and worms known as 'cah-bro' extracted from river driftwood. Colebee and Ballederry called these people the 'climbers of trees' after their practice of skilfully ascending gums in pursuit of animals, cutting footholds in the trunks with a stone axe (Collins 1798).

Environmental conditions in this region throughout the last 10,000 years were relatively stable and evidence suggests that population densities pre contact were high (Williams 2013). In the late 18th century smallpox and other European diseases are likely to have wiped out a significant percentage of aboriginal peoples (>50%). In May 1789, William Bradley recorded the 'dreadful havoc' that small pox had wrought amongst Aboriginal communities: "we did not see a Canoe or a Native the whole way coming up the Harbour & were told that scarce any had been seen lately except laying dead in & about their miserable habitations" (Bradley 1969). Traditional burial practices broke down and clans merged as entire communities were taken by the virus (Hunter 1793). The impact of smallpox and other European diseases continued to ripple across the country, reducing communities in the Hunter "from about 200, to 60" (Backhouse 1843, 401). This is large scale decrease in population accounts the discrepancies seen between the distribution of archaeological remains and the ethnographic accounts of aboriginal populations.

The Cumberland Plain was a point of first contact between many Aboriginal peoples and the European colonisers, the same environmental factors that supported Aboriginal peoples also made for favourable lands for settlement and agriculture. The expedition by Governor Phillip to prospect hill in 1788 found the lands to the west more agreeable to farming than those of the Sydney cove area and the township of Rose Hill (renamed Parramatta the following year) was established and settler colonialism rapidly expanded the European footprint in the area. Competition for resources quickly flared tensions, with violence escalating throughout the region. On 1 May 1801, Governor King issued a public order requiring that Aboriginal people around Parramatta, Prospect Hill and Georges River should be "driven back from the settlers" habitations by firing at them. Kings edicts appear to have encouraged a shoot-on-sight attitude whenever any Aboriginal men, women or children appeared (Flynn 1997).

5 Archaeological context

5.1 Key findings

A summary of the key findings concerning the archaeological context of the project area is provided below:

- A large number of previous archaeological studies have been undertaken within, or in close proximity to the project area. Of note are extensive works for Badgerys Creek airport site encompassing much of the southeast of the project area.
- These studies indicate that elevated areas terraces, levee banks, low hills adjacent third and fourth order creeklines formed a focus for past Aboriginal activity, and that sites are generally located within 100 m of these creeks. Cultural material is found in a range of other environments but will often reflect transient use.
- Some 115 Aboriginal sites have been documented within the general area. AHIMS site #45-5-2280 is located within the project area. However, the AHIMS spatial coordinates for this site are incorrect. A site inspection confirmed the correct location of the site which is situated outside the disturbance footprint. Apart from two culturally modified trees and a grinding groove site, all previously recorded sites in the AHIMS can be characterised as artefactual sites of surface and/or subsurface stone artefact deposits.

5.2 Regional archaeological overview

The first peopling of Australia occurred about 50,000 years ago (50 kiloannum (ka)), and likely consisted of reasonably large groups of technologically advanced hunter-gatherers (Bradshaw et al. 2019; O'Connell et al. 2018). The peopling of the continent was rapid, with sites such as Devil's Lair (WA), Warratyi (SA), and Lake Mungo (NSW) all occupied within a few thousand years of arrival (Bowler et al. 2003; Hamm et al. 2016; Turney et al. 2001). Genomic research has shown that following these initial explorations of the continent, regional populations or nomadic sedentism, was established by ~40 ka (Tobler et al. 2017). These small populations were highly mobile, but remained within a broad spatial geographic area, dictated in general by the nature of resources and water availability. In the case of some of the arid parts of the continent, mobility encompassed thousands of square kilometres (Gould 1977), while major riverine corridors such as the Murray River had near permanent settlements (Pardoe 1993).

In NSW, the earliest evidence of Aboriginal people are human remains recovered from the lunette in Lake Mungo and dating to ~42 ka (Bowler et al. 2003; O'Connell et al. 2018). The presence of red ochre covering the remains representing a society with significant cultural and symbolic complexity (Langley et al 2011). Near the coastal edge, the earliest populations were found at Cranebrook Terrace, near Penrith (Western Sydney). Here a handful of rudimentary stone tools were found in an alluvial unit, some 8m below the current surface, which were dated to ~40–45 ka (Williams et al. 2017). However, it is not until ~35 ka, that regional populations appear to have become established in the Sydney Basin, and which appeared to consist of small bands of people focussed mainly along major river systems, including the Hawkesbury-Nepean River, Georges River, and Hunter River (Hughes et al. 2014; Williams et al. 2012, 2014). These rivers formed key ecological refuges that hunter-gatherer groups used to survive major climatic events such as the Last Glacial Maximum (21±3 ka) – a cool and arid climatic period. Well-established archaeological models suggest populations experienced a major reduction in size (by as much as 60%), and settlement contraction and abandonment across much of the continent during this time (Veth 1993; Williams et al. 2013). Although recent research suggests that the story may be more complex than this (eg Tobler et al. 2017). The terminal Pleistocene and early Holocene (~18–8 ka) was characterised by significant environmental change, notably the rapid inundation of much of the coastal shelf, resulting in the reduction of the continent by ~21% (~2 million km²) (Williams et al. 2018), in tandem with improving climatic conditions – the Holocene climatic optimum (Williams et al. 2015a, 2015b). More broadly, these conditions resulted in increasing population growth, expansion of ranging territories, increasing sedentism (longer patch residence time) and the beginnings of low-level food production (eg aquaculture), and ultimately the initiation of social and cultural groupings observed in the late Holocene (Williams et al., 2015b). Within the Sydney Basin, a large number of sites are first initiated during this time, including Burrill Lake (~20 ka), Bass Point (~17 ka), and Loggers Shelter in Mangrove Creek (~11 ka) (Bowdler 1970; Lampert 1971; Attenbrow 2004; AMBS 2006, p. 87). More broadly, we see a much broader range of archaeological site types occurring, such as the Roonka Flat burial ground on the banks of the Murray River within which some 147 individuals were interred through the Holocene (Pate et al. 1998), and the increasing use of marine resources. Many of the previous refuges were subject to abandonment or a re-structuring of land use (Dortch 1979; Fitzsimmons et al., 2019). These activities suggest the ability to undertake large-scale movements to mitigate environmental distress was becoming increasingly difficult and was addressed through diversification of hunter-gathering behaviours and, at least in part, technological advances and investment (Williams et al. 2015b).

The late Holocene saw significant population increase, with hunter-gatherers reaching their zenith of ~1.2 million at 0.5 ka, a tenfold increase on Pleistocene levels (Williams 2013). Data suggests that the highest populations during this time were in the south-east of Australia. Williams et al. (2015) suggest that this increase was likely a result of intensification of earlier technological advancements, including hafting-technology, plant and seed processing, and localized landscape management (using fire), allowing climatic downturns to be successfully weathered. These included strong arid El Nino Southern Oscillation (ENSO) conditions between 4-2 ka, and increasingly turbulent climatic conditions during the Medieval Climatic Anomaly (1.3-1 ka) (generally wetter) and Little Ice Age (0.3-0.5 ka) (generally drier) (Williams et al. 2010, 2015b). A result of these denser populations was decreasing freedom of movement and the formation of strong classificatory kinship systems, complex cultural and symbolic landscapes based on geographic totemism (the 'Dreaming'), distinctive graphic art systems, land rights in the form of ritual property, and formalized exchange networks (Williams et al. 2015b). For the Sydney Basin, these conditions resulted in a significant increase in the archaeological visibility of past Aboriginal populations, with sites occurring in a much wider range of locations; and generally indicative of a more intensive use of the landscape.

There have been an extensive number of archaeological investigations on the Cumberland Plain in the last four decades. Most of these investigations have been in response to the continual spread of urban development throughout the greater Sydney region. With an increasingly large dataset available, predictive models for Aboriginal sites have been established and continually tested, developed and refined. The predictive models have formed from archaeological surveys and excavations which are discussed below.

5.3 Local studies

The most relevant archaeological investigations of the project area are a project undertaken in 1991 for the original EIS and an assessment for Badgerys Creek airport site in 2016 that encompassed the current project area. Relevant assessments are summarised in the following sections.

5.3.1 Archaeological assessment of the project area (Dean-Jones 1991)

In 1991 an archaeological survey of the subject property (Dean-Jones 1991) was undertaken as part of an EIS to support an earlier application for Luddenham Quarry. Ground surface visibility was higher than it is today, with 70% visibility in the horse yards, 40% in the north-west paddock and 20% along Oaky Creek.

One archaeological site was located during the survey (#45-5-2280) (Figure 5.1). It was identified on the banks of a dam, within an area that would originally have been on the edge of the floodplain of Oaky Creek (see Figure 6.1). The site comprises a surface scatter of 22 flaked stone artefacts of indurated fine sandstone and mudstone. However, the assessment determined that the artefacts were not *in situ*. They were scattered around the shoreline of a small pond created by fill and dam construction. No artefacts were identified as having retouch and on the whole, if cortex was present, it occurred on 10% of less of the artefact's surface. The medium density stone artefact scatter was deemed to be the remnant of a much larger site that had been destroyed by past earthworks. Moreover, the report concluded that site #45-5-2280 had low scientific, educational and cultural significance because of the disturbed landscape context.

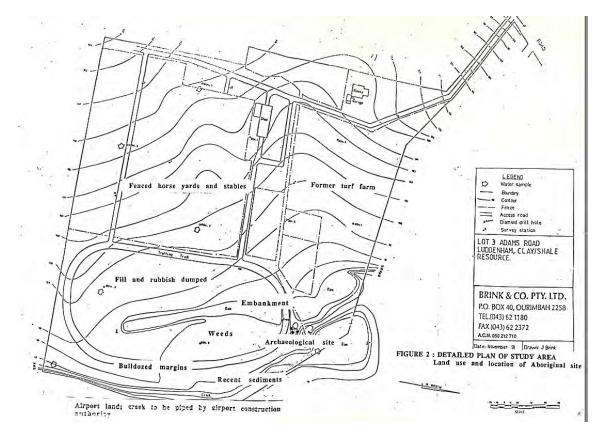
The report predicted that the probability of other sites being present within the subject property (including the ARRC site proposed disturbance footprint) was low. The area around #45-5-2280 has subsequently been fenced to prevent vehicle access, and stormwater or other discharges being directed across the site (Plate 6.3).

Importantly, the report assessed that:

Because of this land use history, preservation of archaeological evidence is considered unlikely over almost the entire property. A small area of relatively intact lower footslope colluvium remains in the north eastern corner, surrounded by earthworks associated with dam construction (Dean-Jones 1991, p.3-4).

Therefore, the report concluded that the only areas of relatively undisturbed ground surface within the project area are located in the north-east around the margins of existing dams. It is possible for ground surface exposures to occur due to past earthworks and fluctuating water levels in the dams.

However, a map of the subject property included in the report (Plate 5.1) showed the project area as a 'former turf farm'. Close examination of the historical aerial photographs (see Table 3.1 and Appendix B) shows that the turf farm was in fact situated in the adjacent property to the north, and that the project area has been a cleared paddock throughout the second half of the twentieth century, and probably much longer.



Source: EIS Appendix 7, Pam Dean-Jones 19991

Plate 5.1 Map of the project area showing land use in 1991. Note that the map is rotated, and north is to the right.

5.3.2 Due diligence assessment of the subject property (EMM 2020)

EMM conducted a due diligence assessment of the broader subject property in March 2020, to identify whether Aboriginal objects or places were likely to be harmed by the project. No new Aboriginal sites were identified during the survey. The location of the previously recorded artefact scatter (#45-5-2280) was ground-truthed and the correct location established (see Figure 6.1).

5.3.3 Assessment and management recommendations regarding #45-5-2280 (Umwelt 2000)

In 2000, Umwelt conducted an Aboriginal heritage assessment of AHIMS site #45-5-2280, in consultation with the Gandangara Local Aboriginal Land Council (LALC) (Nicolaisen 2003, p. 60-61) in order to provide management measures prior to quarry development. During the site inspection, #45-5-2280 was re-located and eight artefacts were identified. The assessment determined that the condition of the site had not deteriorated significantly since 1991, and that the site had moderately low scientific significance. However, it noted that the site has cultural value for the local Aboriginal community and that Gandangara LALC requested that the site be conserved *in situ*.

The report recommended that the site by fenced and marked on all plans and design drawings for the quarry, and any subsequent uses of the property, as an area that is not to be disturbed. In addition, a protocol for the protection of the site should be included in the Environmental Management Plan for the quarry. The report concluded that no further archaeological investigation of the site relating to Aboriginal heritage was required prior to the quarry development and water management measures proceeding.

5.3.4 Badgerys Creek airport site

i Environmental Impact Statement (Navin Officer 1997)

In 1997, an archaeological investigation of two alternative potential airport locations was conducted by Navin Officer Heritage Consultants at Badgerys Creek and the Holsworthy Military Training Area. The Badgerys Creek project area comprised the composite footprint of the three airport options (Plate 5.2) and included the current project area. The assessment was based on Aboriginal cultural values reported by Aboriginal stakeholders and an archaeological survey of surface archaeological features.

During the 1997 EIS field survey program, 110 Aboriginal sites were identified, in addition to a previously recorded site (#45-5-0517), producing a total inventory of 111 recordings. The majority (92%) comprised surface artefact sites (44 isolated finds and 58 artefact scatters). These sites were characterised by low artefact numbers and low artefact densities. The number of recorded artefacts ranged from 2–31, with approximately half (46%) containing 3–5 artefacts and 22% containing only two artefacts. The remaining recordings consisted of eight scarred trees and an open potential archaeological deposit (PAD).

Just over half of the sites were assessed as having a moderate or high potential for *in situ* artefactual material. These were sites predominantly within fluvial corridor contexts. Thirty-one per cent of sites occurred on alluvial flats or valley floor contexts within the corridor zone. Crests and ridgeline zones contained proportionately low artefact densities (12%), with highest percentages (7%) occurring on minor watersheds situated close to fluvial corridor zones.

In summary:

- sites and varying artefact densities occur in all topographic zones;
- site density was found to be higher in topographies associated with permanent water sources;
- alluvial flats were a zone of high site density and appeared to have been a focus of Aboriginal occupation; basal slopes adjacent to valley floor contexts were also found to have relatively high site densities;
- sites in association with permanent water (secondary or higher order fluvial corridors) tended to be larger, and have higher artefact densities and greater technical complexity, than those associated with lesser order drainage lines;
- in line with the results of the Rouse Hill investigations (JMCHM 2005) all of the fluvial corridor zones were identified as zones of archaeological potential relative to adjacent topographies. These zones were considered likely to contain larger and more complex sites, as well as the least disturbed sub-surface deposits below the plough zone;
- ridgetops in general contained fewer sites; and
- minor gullies (ie drainage lines outside of fluvial corridors), tended to have low site densities.

5.3.5 Aboriginal cultural heritage assessment (Navin Officer 2016)

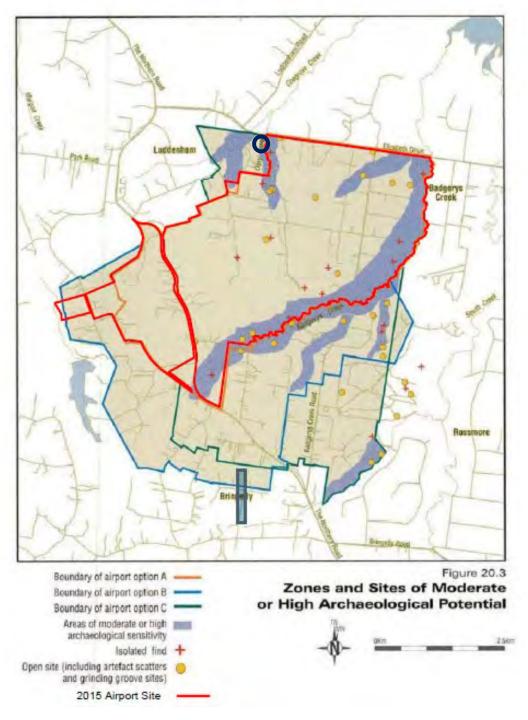
In 2016, Navin Officer completed an Aboriginal cultural heritage assessment (ACHA) including Aboriginal consultation, survey and a three-week fieldwork programme of test excavation at the Badgerys Creek airport site (Navin Officer 2016). Their assessment incorporated the proposed 2015 airport site (outlined in red in Plate 5.2) which is adjacent to the current project area to the south and east. The report noted that Oaky Creek, within the current project area, was identified as an area with moderate or high archaeological potential in the 1997 EIS assessment for Badgerys Creek airport site (Plate 5.2).

Test excavation was conducted at 11 locations, resulting in 23 new recordings of Aboriginal sites. These comprised 9 recordings with surface artefacts only; and 14 recordings where subsurface artefacts were confirmed through test excavation. One previously recorded site was subject to test excavation which confirmed the presence of subsurface artefacts (#45-5-2665). Distribution was uneven and consistent with a random sampling of a population that is sparsely and unevenly distributed (Navin Officer 2016, p.102).

The depth of subsurface artefacts, typically in Western Sydney, occur in the top 30 cm. In valley floor deposits can be much deeper. Where there is a distinct clay layer, artefacts tend to move through the soil profile and rest just above the clay layer (Navin Officer 2016, p.238).

Artefacts recovered from the test excavation predominantly comprised unretouched flakes. Retouched flakes made up 12% of the assemblage and of these, the majority were backed artefacts. Only two of the 91 artefacts recovered during test excavation were cores. Raw materials identified within the stone artefacts recovered were predominantly silcrete, with vein quartz, igneous rock and fine-grained siliceous rock also present. The low proportion of cortex on the artefacts is consistent with an assemblage produced in a situation where people had limited access to raw material and intensively flaked and reduced the stone they did have.

The investigation found that proximity to water, and the size of nearby water sources, was the major factor influencing where Aboriginal groups chose to focus their activities. Artefact density increases with the size of nearby drainage lines (within 100 m). Other variables, such as elevation and valley context, that are also associated with changes in artefact density, are closely linked to the size of drainage lines in the landscape. The assessment found a consistent signal of increasing artefact density associated with proximity to water, and proximity to higher order drainage lines. They concluded that access to stable sources of water, and consequently plant and animal resources, associated with higher order drainage lines was the major determining factor in where Aboriginal activity was focused.



Source: Navin Office 2016, Figure 5.5

Plate 5.2 Zones and sites identified in the 1997 EIS assessment with predicted subsurface Aboriginal archaeological potential. Location of project area circled in black.

5.3.6 Due diligence heritage assessment for stockpiling site at 285 Adams Rd, Luddenham (Epic 2016)

An Aboriginal due diligence assessment report was prepared in 2016, to support a modification (Mod 4) for the clay and shale quarry. The proposed modification involved the relocation of already approved stockpiling of excavated material to 285 Adams Road, directly to the north of the project area and the relocation of composting activities to the area now proposed for the ARRC within the northern part of the current project area. The assessment reviewed landscape disturbance levels and the potential for Aboriginal objects within the proposed Mod 4 area.

The report noted that two archaeological assessments were carried out as part of the original Luddenham Quarry EIS during which an area adjacent to the Riparian Zone (within the previously approved site) was identified as containing items of Aboriginal Heritage. Consequently, this area is fully segregated and protected from the remainder of the site, fenced and locked. Access to this zone is available to authorised people and the Aboriginal community only. In addition, other sites of Aboriginal cultural values have been identified within the Commonwealth land east of Oaky Creek, but none were identified within the proposed Mod 4 area.

The report concluded the subject property was very disturbed and unlikely to have any place or object of Aboriginal cultural or archaeological value.

5.3.7 Mamre South Precinct State Significant Development (Biosis 2019a)

Biosis (2019a) prepared an Aboriginal cultural heritage assessment (ACHA) for a State Significant Development (SSD) at 657-769 Mamre Road, Kemps Creek, 7 km to the north-east of the project area. Their project included both surface and sub-surface investigations, and consultation with 19 Aboriginal organisations.

The assessment identified nine Aboriginal sites consisting of various densities of stone artefacts. Excavations across the site recovered 691 artefacts, of which 666 were recovered from MSP-02 (#45-5-5188), located on a high point some 100 m from South Creek (a sixth order stream). These artefacts were characterised as of late Holocene age, dominated by silcrete raw materials and a higher than average proportion of formal tool types. While excavations demonstrated that much of the site exhibited a \leq 30 cm soil profile, occasional test pits in MSP-02 extended to 80 cm. Although even in these locations, artefacts were primarily found within the upper 40 cm (~98%).

This assessment demonstrated that artefact densities were generally low across most landforms in the local area, apart from at a single location within 100 m of a high order stream.

5.3.8 Mamre Road Precinct: Aboriginal Heritage Study (EMM 2020a)

The desktop and field survey investigations for this Aboriginal heritage study demonstrated that the 5 Mamre Road Precinct is comparable with the wider cultural landscape of the Cumberland Plain. The study area is situated between two of the major river systems connecting the northern and southern parts of the Cumberland Plain, including Ropes Creek, Kemps Creek and South Creek. Previous investigations both within and near the study area demonstrate a focus of past occupation along these waterways, and especially on elevated land near these resources. Sites are primarily situated along the edges of the main creek systems and/or on a ridgeline in the north of the study area. With one exception, #45-5-5188 – a high density artefact scatter on South Creek – the sites are all characterised as isolated objects and/or low-density artefact scatters (usually consisting of <10 artefacts).

Excavations of several sites by Biosis (2019a, 2019b) suggest that artefacts are primarily found in shallow duplex and/or fabric contrast soil profiles commonly <30 cm deep, with rare examples extending to 60–80 cm. A limited field investigation due to access issues, identified a further two previously unidentified sites, MPR-01 (#45-5-0316) and MPR-02 (#45-5-0315), both consisting of low numbers of artefacts in the vicinity of Kemps Creek and Ropes Creek, respectively.

In addition to the identified Aboriginal sites and objects, areas of archaeological potential were identified within 200 m of Ropes Creek, and 100 m buffer of Kemps Creek, South Creek and second order tributaries. The reduction in these latter areas relates to the local topography and significant disturbance in these locales. The study found that elevations, such as levees, terraces, etc, have a greater potential within these buffers for significant cultural material to be present. In addition, a number of ridgelines were also identified as having potential based on the Aboriginal heritage study findings and Aboriginal community feedback.

5.3.9 Oakdale South Estate (Artefact 2015) and Oakdale West Estate (Artefact 2017)

Oakdale precinct is a development of industrial properties, approximately 9 km north-east of the project area. Oakdale West lies to the west of Ropes Creek (a third order stream) and Oakdale South lies to the south-east of a tributary. Findings by Artefact's test excavation at Oakdale South in 2015 are applicable to the project area and offer a model of the archaeological potential within the precinct.

The Oakdale South investigations (Artefact 2015) included a series of test excavations conducted within areas identified as of archaeological significance. These included tributaries to Ropes Creek and in proximity to previously identified sites. A total area of 27.5 m² was excavated and identified a soil profile commonly about 60 cm in depth. These soil profiles were consistent with a shallow duplex or fabric contrast soil, demonstrating a pale grey loam topsoil (A1 horizon) grading into a hard, brownish orange clay subsoil (B2 horizon). Some 341 artefacts were retrieved during test excavation primarily from the upper 20 cm, resulting in an overall artefact density of 12.29 artefacts/m².

The report concluded that the results reflected a transient use of the region by Aboriginal people in the past, with only one testing area revealing higher densities. Specifically, some 49 artefacts were recovered from a single test pit, although other densities were generally $<10/m^2$.

A subsequent stage of work was undertaken for Oakdale West Estate (Artefact 2017). This consisted of a desktop review and field survey of the site and documented eight sites, all consisting of artefact scatters and/or isolated Aboriginal objects. In general, none of these sites exceeded 5 artefacts in a single locale, and most were in disturbed locations. However, the sites were primarily adjacent to Ropes Creek, and the report ultimately identified a large area of archaeological sensitivity along this tributary.

5.4 Aboriginal Heritage Information Services (AHIMS)

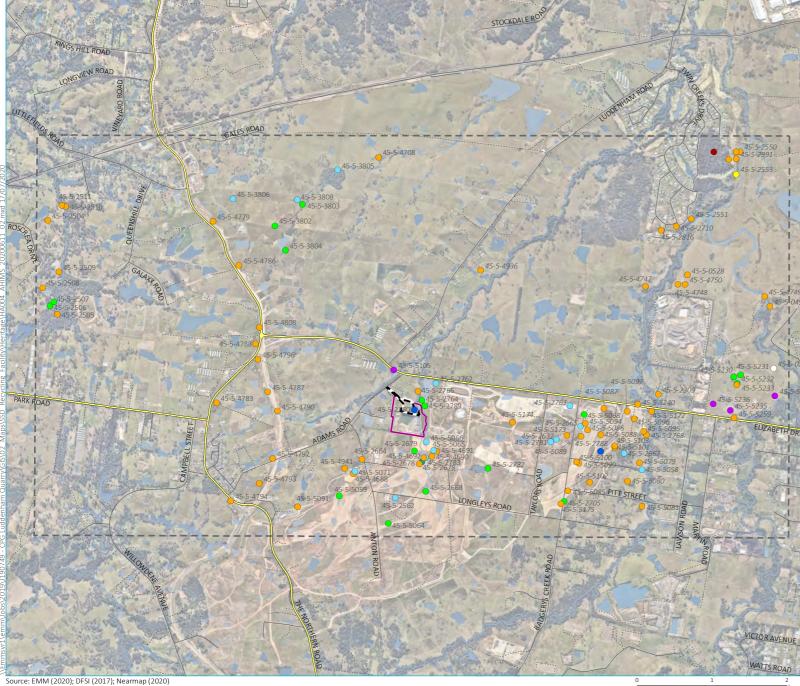
A search of the AHIMS database on 20 January 2020, identified 110 sites within a 10 km x 5 km search area centred on the project area (refer to Figure 5.1 and Appendix A).

Apart from an axe grinding groove site, two culturally modified trees and four areas of potential archaeological deposit (PAD), all the sites identified in the search area were artefactual sites (n=103). Descriptions of the size and density of these sites are limited but were provided generally appear to indicate isolated objects or very small numbers (<10). They are often found occurring on deflated and/or disturbed surfaces, which is in part the result of better visibility in these environments. A summary of the site types recorded on AHIMS is provided in Table 5.1.

There is one registered AHIMS site within the project, Oaky Creek 1 (#45-5-2280), a medium density artefact scatter identified in 1991 (Dean-Jones 1991). However, the site inspection confirmed that this site is erroneously recorded and that the correct location is approximately 40m to the west of the project area (Figure 6.1). See Section 5.3.1 for a site description and Figure 6.1 for its location.

Table 5.1 AHIMS site results

Site type	Count
Axe grinding groove	1
Culturally modified tree	1
Culturally modified tree, undefined artefactual site	1
Artefact sites	103
- Isolated Find	17
- Low density artefactual site (<10)	16
- Low density artefactual site (10–20)	1
- Medium density artefactual site (20–50)	2
- Undefined artefactual site	67
Potential archaeological deposit	4
TOTAL	110



KEY Subject property

- ARRC site (project area)
- L AHIMS search area
- Major road
- Minor road
- ······ Vehicular track
- AHIMS site types
- \bigcirc Axe grinding groove
- Culturally modified tree
- Culturally modified tree, undefined artefactual site
- Isolated find
- Low density artefactual site (10-20)
- Low density artefactual site (< 10)
- Medium density artefact site (20-50)
- Potential archaeological deposit
- Undefined artefactual site

AHIMS results

Luddenham Advanced Resource Recovery Centre Aboriginal Cultural Heritage Assessment Figure 5.1



GDA 1994 MGA Zone 56

5.5 Predictive model

The existing environment heavily influences the potential types of cultural material that may be present and survive in the project area. This teamed with information from previous archaeological studies and ethnographic information provides a framework for predictions to be made about the distribution and types of cultural material within the project area.

5.5.1 Summary of background information

Through examination of landscape information and the Aboriginal heritage background, the assessment indicates that the archaeological nature of the project area is likely to align with typical regional models of the Cumberland Plain – whereby while cultural material is often found in the vicinity of water, it is more commonly located on third and fourth order creeks, and less so on smaller tributaries. While results do not support significant deposits being present on ephemeral creeklines, a medium density artefact scatter has been identified on Oaky Creek, and as such, may contain additional cultural material (although in lower densities than would be expected adjacent to higher order creeks). The ACHA completed for Badgerys Creek site that adjoins the project area (Navin Office 2016) found that sites occurred most frequently within 100 m (rather than 200 m) of reliable, higher order streams. It is also worth highlighting that the land around Oaky Creek has been subject to land clearance and water management, including the construction of dams may have altered the course of the stream from pre-contact times.

Overall, the presence of archaeological material in the project area would be highly dependent on the levels of previous disturbance which is likely to have either removed or moved archaeological material from the once most archaeologically sensitive area adjacent to Oaky Creek (within 100 m). Prior to modern land-use disturbance, the project area was likely to have contained low to moderate subsurface artefact densities in proximity to Oaky Creek. However, land use disturbance has extensively disturbed the land within 100 m of Oaky Creek through dam construction which has exposed stone artefacts not *in situ* in a small area directly next to the stream channel. The eastern and southern boundaries of the project area have been even more heavily modified with embankments, bunds and roads associated with the quarry. There is a grassed paddock within the project area where disturbance seems to have been limited to de-vegetation and pastoral grazing. This area is roughly within 200 m of the original alignment of Oaky Creek and therefore may feature Aboriginal objects as surface or subsurface material. The density of artefacts is currently unknown and could only be established through test excavation.

5.5.2 Predictive model results

Predictions for the project area are summarised in Table 5.2.

Table 5.2Predictions for the project area

Site type	Predictions for project area
Open artefact sites and isolated finds	Open stone artefact scatters and isolated finds are the site types most likely to occur in the project area. These may occur anywhere as background scatter but are most likely to occur close to reliable sources of water (generally within 100–200 m). Although stone artefact sites may be present in these areas, their detection is dependent on favourable ground surface visibility conditions.
Scarred trees	Scar trees may occur where native vegetation has been preserved. Native vegetation has largely been cleared across the project area. A review of aerial imagery indicates that the project area was extensively cleared prior to 1947, apart from a small grove of trees still present today.

Table 5.2Predictions for the project area

Site type	Predictions for project area
Carved trees	Carved trees may occur in association with burials, ceremonial sites or as indicators of 'dreaming' tracks and pathways. As such, they may occur only where native vegetation has been preserved, but their location within the landscape is difficult to predict without the aid of cultural knowledge. The project area has been extensively cleared. Trees within the project area are relatively young and are unlikely to contain cultural scars.
Grinding grooves and grind stones	The geology mapping of the project area indicates that grinding grooves are unlikely to occur in the project area.
Hearths	The extent of historical land use (primarily vegetation clearance) has led to widespread disturbance, which is likely to have removed or destroyed archaeological traces of this site type. Soil landscapes information indicates that topsoils generally comprise shallow duplex soil profiles and therefore deeper stratified deposits suitable for the preservation of hearths are unlikely to exist.
Burials	Burials can occur anywhere in the landscape, but their identification is rare. Generally, they would be identified by mounds of earth, carved trees or stone markers. The soils within the project area may have been too shallow and clayey for internment.
Stone arrangements	Stone arrangements are most likely to occur on elevated and relatively flat landforms (eg crests, terraces, ridges) nearby sources of outcropping cobbles or small boulders capable of being moved manually. However, it is very likely that they have been disturbed and/or destroyed by historical land use practices.
Quarries (stone or ochre)	Potential quarries for stone tool material is difficult to predict. However, previous studies have not found any suitable quarry material.
Rock art, shelters and engravings	These sites are very unlikely to occur as the local geology does not permit such formations.
Middens	Middens of bone, charcoal, stone and freshwater shells may occur along extensive and reliable river systems. However, they are rare in the local landscape and are likely to have been disturbed or removed by historical land use.

6 Archaeological survey

6.1 Overview

On 29 June 2020, eight RAPs joined EMM archaeologist Pamela Chauvel to complete a survey of the project area. This involved walking over the project area and recording landscape information, as well as targeting ground exposures for the presence of Aboriginal objects.

The main aims of the survey were to:

- identify Aboriginal sites and/or potential Aboriginal places;
- characterise the landscape to aid predictions of subsurface archaeological potential; and
- assess the potential impacts of the proposed development.

6.1.1 Survey limitations

The archaeological survey was hampered by limited ground surface visibility conditions due to dense, knee high grass (Plate 6.1) and gravels on the track surfaces.



Plate 6.1 Project area (ARRC site). View east

6.2 Survey method, site identification and site recording

The archaeological survey and data collection methods followed Section 2.2 of the Code (DECCW 2010a). The survey involved pedestrian field transects within defined landform units. The survey team comprised nine people spaced approximately 5 m apart within a 50 m corridor across the project area. This method was considered to be suitable for a landscape characterised by a densely grassed paddock with zero surface visibility (Plate 6.1). The survey team targeted ground exposures beneath the grove of trees and on the tracks, although visibility of these areas was obscured by leaf litter and introduced fill.

Survey transects were recorded as tracks on a hand-held non-differential GPS unit. Photographs were linked to recording forms created by EMM on the Survey123 application for ArcGIS (Esri[©] software) which allows the photograph's location to be plotted on ArcGIS. No sites were recorded during the survey.

6.3 Survey coverage data

6.3.1 Rationale

The aim of recording and analysing survey coverage data is to determine the effectiveness of the survey. The effectiveness of the survey in identifying the distribution of Aboriginal objects across the landscape is evaluated, taking into account the potential for archaeological deposits. The percentage of the ground surface exposed in each landform and the visible ground surface within exposures (as ground exposures are often obscured by vegetation, gravels, etc) influences the survey results. For example, an archaeologically sensitive landform surface that is highly exposed by erosion is likely to reveal Aboriginal artefacts, whereas a similar landform that is thickly grassed will obscure surface artefacts if they are present.

Overall, calculation of effective survey coverage is used to estimate not only how much area was physically surveyed, but also how favourable the survey conditions were for the identification of Aboriginal sites.

6.3.2 Field survey coverage results

i Overview

Figure 6.1 presents the survey transects logged by GPS during the due diligence assessment on 30 January 2020 and during the site visit with RAPs on 29 June 2020. The tracks represent only where the archaeologist walked (one person's movements). It does not accurately represent the transect width covered by the survey team during the fieldwork.

The survey team on 29 June 2020, comprised nine people spread out across a 50 m corridor. The team commenced the survey on the western boundary of the project area and traversed the grassed paddock. As there was very limited surface visibility, it was determined that no additional information would be gained by additional pedestrian survey of this area. Survey effort was concentrated on areas with some surface exposure such as tracks and beneath the grove of trees. Landform coverage data is summarised in Table 6.1.

Table 6.1Survey coverage

Landform	Survey unit area (m²)	Visibility (%)	Exposure (m²)	Effective coverage area (m²)	Effective coverage%
Gentle slope (grassed paddock and trees)	10,000	5	50	250	2.5
Gentle slope – track with exposures	2,700	20	10	54	2

6.4 Results

The project area gently slopes from the west to east. It has been largely cleared for agricultural use. Grass covered most of the project area, limiting ground surface exposure and visibility.

Two creeks are located near the project area. Cosgroves Creek to the west is approximately 70 m from the driveway entrance on Adams Road, and over 200 m from the proposed ARRC. Oaky Creek runs along the eastern boundary of the lot, approximately 40 m to the east of the project area.

The site inspection for the due diligence assessment in January 2020 found that the spatial coordinates for the recorded AHIMS site in the subject property (#45-5-2280) do not match its physical location in the subject property (Plate 6.2). The recorded AHIMS location was inspected and found to have a high level of disturbance from creation of the road, the dam walls and a nearby noise bund. High grass limited the ground surface visibility. No artefacts were identified. Approximately 50 m to the east of the recorded AHIMS location is a fenced area that marks the true location of the AHIMS site. The corrected location of #45-5-2280 is shown on Figure 6.1. The securely fenced area is located beside Oaky Creek and contains an area approximately 2.5m x 6m (Plate 6.4). At the time of the site visit, the ground was covered in a deep layer Casuarina needles and no artefacts were identified (Plate 6.3).

The ARRC site is a grassy paddock in the northern part of the subject property that has been heavily impacted by pastoral activities, particularly grazing (Plate 6.1). The paddock has a dense cover of exotic grass and surface visibility was limited. This riverflat area slopes gently to the east and towards Oaky Creek. A small grove of predominantly casuarina trees is located to the east of the paddock between a small dam and the northern bund wall of the quarry (Plate 6.5). This grove of trees is visible in the 1947 aerial photographs and represents an area that has experienced less ground disturbance and possibly a higher potential for archaeological deposit.

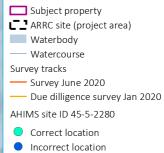
The southern boundary of the project area encompasses the northern bund wall for the quarry and nearby stockpiles and waste mounds (Plate 6.6). These areas of disturbance have rendered the probability of Aboriginal artefacts surviving in intact contexts as negligible.

The eastern boundary of the project area has been highly modified. Originally built up and levelled for the trotting track, an access track now runs from the quarry, beside Oaky Creek. The area has been raised and levelled with introduced fill (Plate 6.7) and overlaid with a gravel road base (Plate 6.8). Chalky, angular fragments of stone were identified along the tracks but are deemed not to be cultural because of their location among introduce gravel road base. The track continues along the northern boundary of the project area (Plate 6.9). Ground exposures on the track showed the soil to be a highly compacted silty clay. The entrance to the subject property on Adams Road (Plate 6.10) is an approximately 4 m wide bitumen road with grassed verges, fenced either side and with electricity poles along the southern verge. It slopes gently upwards from Cosgroves Creek then turns to the south and leaves the project area boundary, following the ridgeline between Cosgroves and Oaky Creek to a parking area to the south-west of the project area.

The riparian zone on the west side of Oaky Creek, has been less disturbed than the majority of the project area (Plate 6.3). Oaky Creek runs south to north along the eastern boundary of the project area but is outside the proposed disturbance footprint of the project (Figure 1.2). Survey confirmed the assessment of previous reports (Navin Officer 2016) that this area has higher potential for Aboriginal cultural material to be present. However, it should be noted that a series of dams and earthworks, in the north-east corner of the project area, has impacted the flow of Oaky Creek and disturbed the ground surface.

Overall, the field investigation indicated that the project area has a range of moderate and heavy ground disturbance as a result of modern activities. This is especially the case on the southern and eastern boundaries of the project area, where quarrying, and related activities such as stockpiles and bunds, have altered the landscape significantly. The level, grassed area, within 200 m of Oaky Creek, has experienced disturbance from de-vegetation and use as a grazing paddock.





Survey results

Luddenham Advanced Resource Recovery Centre Aboriginal Cultural Heritage Assessment Figure 6.1

GDA 1994 MGA Zone 56 N



Plate 6.2 Incorrect location of AHIMS site #45-5-2280 as recorded on the AHIMS database. View north



Plate 6.3 Looking north-east towards correct location of AHIMS site #45-5-2280, situated between two dams visible to the left and right of the photograph



Plate 6.4 Fenced area around correct location AHIMS site #45-5-2280. Negligible surface visibility due to a deep layer of Casuarina needles. View north







Plate 6.6 On the eastern side of the paddock looking south towards the quarry bund wall. Waste mound in the foreground



Plate 6.7 Fill used to create a level surface for the road. Raised embankment beside dam in the middle ground and grove of trees behind. View north-west



Plate 6.8 Introduced gravels on the track that runs from the quarry around the eastern boundary of the project area. View south-east







Plate 6.10 Entrance to the subject property on Adams Road. Looking west towards Cosgroves Creek on the other side of the road

7 Test excavation

7.1 Overview

A test excavation program was undertaken over three days from 25 to 27 August 2020. The program involved four archaeologists and up to four RAP representatives on each day.

The purpose of the test excavation was to build on the information obtained through desktop analysis, particularly the results of archaeological assessments at the adjacent Badgery's Creek airport site, which suggested that the project area had potential for sub-surface Aboriginal objects. Community consultation with RAPs indicated their strong desire for a test excavation programme in order to determine the potential for archaeological material and confirm the level of disturbance. Therefore, it was determined that test excavation be undertaken in order to characterise the archaeological deposit and contribute to updated significance and impact assessments, and in developing appropriate management measures.

7.2 Test excavation methods

The test excavation involved the following method:

- A series of linear transects were set out across area of moderate archaeological potential (Figure 7.1).
- Areas observed in the field to have substantial existing disturbance were avoided.
- 50 cm x 50 cm test excavation units were spaced at 20 m intervals along each transect.
- The first test excavation unit was dug manually with hand tools in 5 cm spits to identify the nature of the soils and to identify if a stratigraphic sequence existed. The remaining pits were dug in 10 cm spits.
- Each pit was excavated until basal clay was reached, or to 10 cm below the artefact bearing level identified at each transect.
- All excavated soil was sieved on-site using a wet sieving technique. The soil was sieved through a mix of 3 mm and 5 mm aperture mesh (Plate 7.1).
- All test excavation units were backfilled by the excavation team after each pit was recorded.
- Each test excavation unit was photographed, and soil profile/section drawing were completed.



Plate 7.1 Wet sieving on the northern edge of the project area. View south

7.2.1 Test excavation unit layout

Eleven linear transects, oriented north–south, were placed across the area of moderate potential within the project area. The test excavation units were spaced 20 m apart and each alternate transect was offset by 10 m (Figure 7.1). After 36 test excavation units had been dug across the project area, six test excavation units were added to further investigate localised artefact occurrences. The additional test excavation units were offset from test excavation units in transects 1 and 2 from where artefacts had been recovered. This concentrated test excavation to an area down slope closest to Oaky Creek and where soil deposit was highest, and towards the southern boundary of the project area where artefacts had been identified (Plate 7.2).



Plate 7.2View north from the quarry bund wall across the project area (Oaky Creek is to the right).Additional test excavation units being dug at 1BS, 2AA and 1AA (from left to right)

7.3 Results

Overall, the team excavated 42 individual 50 cm x 50 cm test excavation units, amounting to 10.5 m^2 . The majority of test excavation units were excavated to a depth of 20 cm, with some test excavation units excavated to 30 cm before basal clay was reached. Deeper test excavation units tended to be located downslope. A summary of test excavation results is included in Table 7.1.

Seven artefacts were retrieved from test excavation units in transects 1, 2, 7 and 9 (see section 7.3.2).

Table 7.1Test excavation results

Transect	Test excavation units	Artefacts	Notes
1 S	1	0	Additional test excavation unit offset by 10 m from Transect 1.
1	10	3	Six initial test excavation units, with three test excavation units added.
2	6	2	Four initial test excavation units with two test excavation units added.
3	4	0	
4	3	0	
5	3	0	
6	3	0	

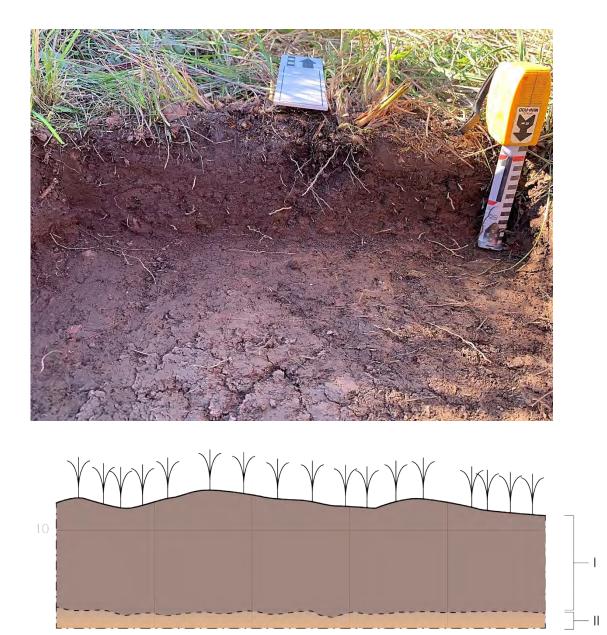
Table 7.1Test excavation results

Transect	Test excavation units	Artefacts	Notes
7	3	1	
8	3	0	
9	3	1	
10	3	0	
11	1	0	Area of higher disturbance near vehicle access track.

7.3.1 Soils

Soils across the excavation programme consistently comprised a 15–20 cm A-soil horizon of dark brown, moderately compacted silty loam with variable clay content (Plate 7.3 and Plate 7.4). Concentration of ironstone modules and angular ironstone fragments varied across the site from negligible to around 50%, with higher concentrations tending to occur down slope. Occasional burnt clay and charcoal were encountered around 15–20 cm depth although there was no evidence that this was cultural (such as a hearth feature) and is more likely to be from vegetation being burnt. The topsoil came down onto a B-soil horizon of undulating orange clay, with a diffuse interface. The clay often contained ironstone nodules and the mixed nature of the clay indicates that the soil has been disturbed and redeposited in places.

An example of a test excavation unit with redeposited soil is Test Pit (TP) 5C (Plate 7.5). The test excavation unit contained a high percentage of angular ironstone gravels that were not well sorted, as well as rocks 8-10 cm in size and pockets of redeposited clay.







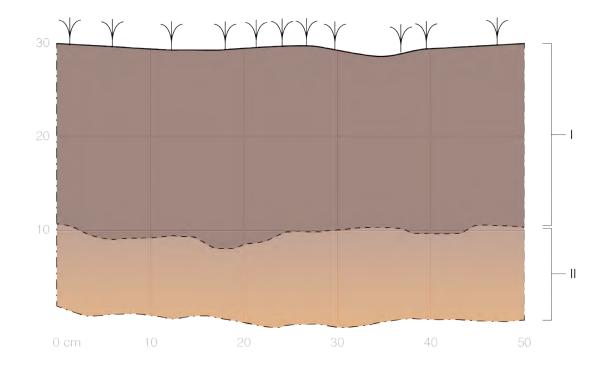
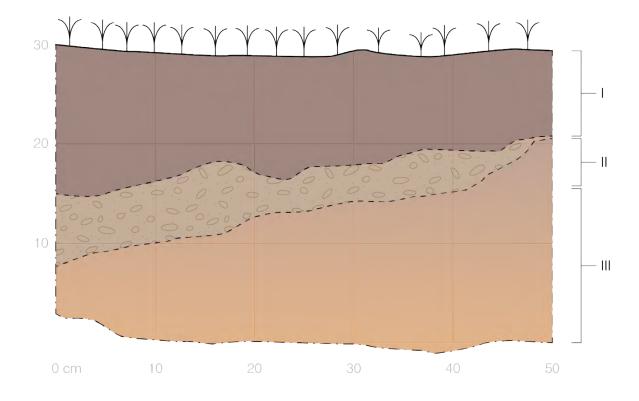


Plate 7.4 TP3C. Clay concentration increasing with depth.







7.3.2 Artefacts

Seven stone artefacts were recovered during the test excavation, comprising silcrete and IMT (indurated mudstone/tuff) flakes. The assemblage was dominated by unretouched flakes and flake fragments, distributed unevenly across the project area Each artefact was from a different test excavation unit and all but one were recovered from the top 10 cm of soil. The other artefact was recovered from the second spit of TP9B (10–20 cm). The average artefact density for the site was 0.7 artefacts/m².

One artefact, recovered from TP1E, displayed dorsal retouch along its distal margin. The silcrete flake had been backed at an angle to create a wedge shape (Plate 7.6). Backed artefacts were more common in the late Holocene period (c.2,500BP). They were "multi-functional and multi-purposed components in a range of different tools" (Attenbrow 2010, p.154) and represent investment of time in order to shape and create a specific shape.

Table 7.2 Artefacts recovered

Test excavation unit (TP)	Spit	Туре	Material	Colour	Length (mm)	Width (mm)
1E	1 (0-10 cm)	Flake	Silcrete	Light grey	16	11
1B	1 (0-10 cm)	Distal lake	Silcrete	Greyish brown	22	18
1C	1 (0-10 cm)	Flake	Silcrete	Pink	18	7
2AA	1 (0-10 cm)	Flake piece	IMT	Light grey with dark inclusions	19	14
2B	1 (0-10 cm)	Flake	IMT	Orange	20	20
7C	1 (0-10 cm)	Distal flake	IMT	Grey	8	11
9B	2 (10-20 cm)	Flake	Silcrete	Pink	6	8



Plate 7.6 Silcrete flakes, recovered from test excavation units 1B, 1C, 1E (retouch) and 9B





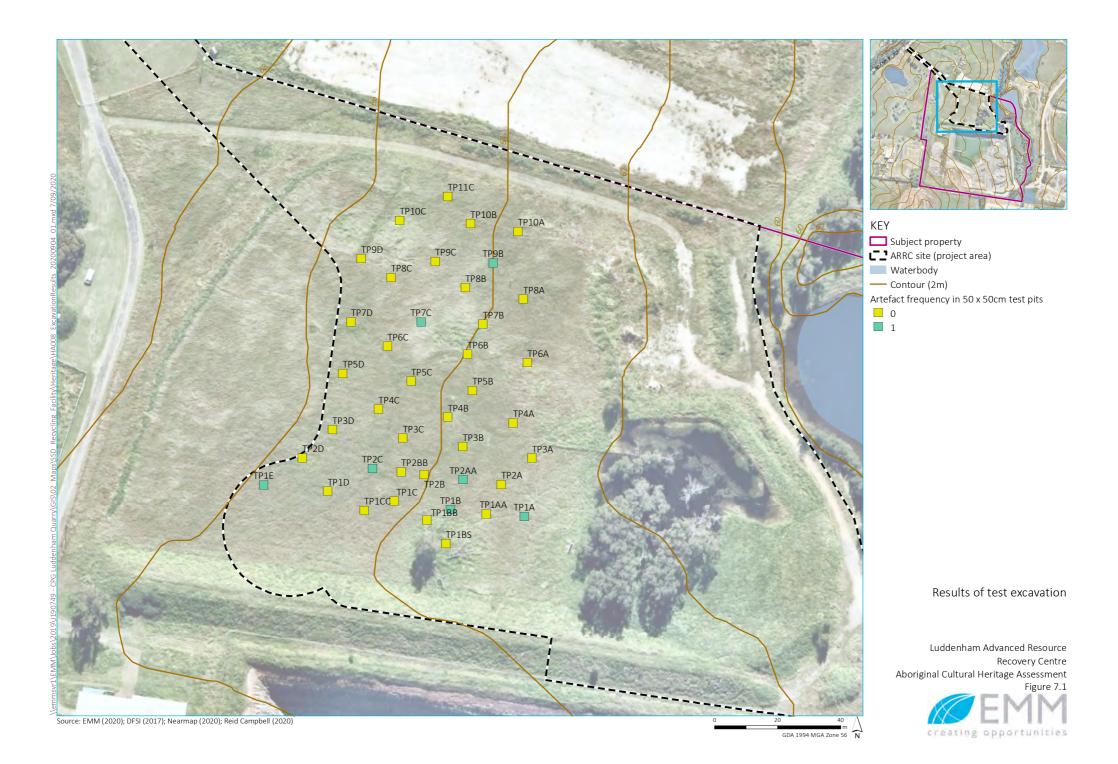
7.4 Discussion

The test excavation program was sufficient to characterise the nature of, and potential for, Aboriginal artefacts in the project area. It determined that there is a low-density artefact scatter across the site, which has been labelled as Luddenham Quarry 1 (LQ1).

The small size of the assemblage makes it difficult to draw conclusions regarding the activities that were carried out in the project area or to build up a comprehensive picture of artefact types. However, some broad generalisations can be made. First, raw materials present in the assemblage are consistent with nearby sites and would have been procured from within the Sydney basin: The IMT from Hawkesbury Nepean gravels and the silcrete from northwestern Sydney. Secondly, none of the flakes contained cortex (the outer layer of rock). A low percentage of cortex is indicative of artefacts produced later in the core reduction process and demonstrates a preference to use what was available rather than expend time and energy in procuring more. Thirdly, the assemblage comprises small flakes. The largest flake was 22 mm long. This indicates that knapping (flake production) was carried out within the project area as knapping produces a large number of small flakes (debitage) which are then left behind as they are too small to be functional as tools.

The test excavation program investigated an area from between 100–200 m from Oaky Creek, a distance that is commonly associated with low densities. Artefact frequencies are likely to be greater within 100 m of Oaky Creek but only within undisturbed areas, such as the riparian corridor. However, the riparian corridor is outside the project area and was therefore not tested.

The sparse and random distribution of artefacts across the project area suggests that the site was occupied occasionally, possibly because there are other nearby creeks with more reliable sources of water, which would have provided more reliable access to associated resources. However, the low-density artefact scatter is also attributable to disturbance, particularly the top 20–30cm of soil, from historic land clearance and subsequent pastoral use. The artefacts therefore represent the traces of past Aboriginal occupation that survive in the landscape.



8 The archaeological resource

8.1 Assessment of archaeological potential

The desktop and field survey investigations for this ACHA demonstrate that the project area is comparable with the wider cultural landscape of the Cumberland Plain. As outlined in Section 4, the Cumberland Plain is one of the most intensely archaeologically studied regions in Australia, and as such we have a good understanding of past Aboriginal activity. Specifically, while there is evidence of people in the Sydney Basin by at least 36 ka, much of the Cumberland Plain appears to have become established only in the late Holocene (5–0 ka). This was likely in response to increasing population pressures and improving climatic conditions driving more permanent occupation of this region, and away from the major river systems, such as the Hawkesbury-Nepean River.

Archaeological evidence suggests that people utilised a wide range of resources across the region, and especially the silcrete raw materials from the Blacktown, Riverstone and Plumpton Ridge areas. These materials were moved along the major river systems across much of the Sydney Basin. Foci of occupation also appear to be primarily associated with the major river systems, although a transient use of all environments was known to occur. While a range of archaeological sites types are found across the Cumberland Plain reflecting these activities, much of the landscape constrains cultural material to stone artefacts located on the surface and/or in the upper soil profile.

With specific reference to the project area, the following findings are made:

- there is one registered AHIMS site within the subject property (#45-5-2280); however, the site inspection confirmed that the coordinates do not correspond with the location of the fenced area where the site is physically located which is outside the project area;
- archaeological survey identified that the riparian corridor of Oaky Creek, outside the project area, is the area most likely to have potential archaeological deposit in the subject property; although no Aboriginal cultural material was located during the survey;
- the project area has a range of moderate and heavy ground disturbance as a result of modern activities. This
 is especially the case on the southern and eastern boundaries of the project area, where the landscape has
 been altered significantly by quarrying and other earthworks, stockpiling or waste disposal between 2014
 and 2017 and the addition of stormwater retention ponds in the eastern portion of the project area. There
 is negligible potential for surface and/or subsurface material to be present in the southern and eastern
 boundaries of the project area; and
- the gently sloped, grassed area, within 200 m of Oaky Creek, has experienced moderate disturbance from de-vegetation and use as a grazing paddock. Test excavation in this area recovered seven artefacts from 42 test excavation units and represents a low-density and uneven artefact scatter (LQ1). Figure 8.1 shows the boundary of LQ1 in yellow, characterised as an area of low artefact density (up to 1.5 artefacts /m²). The orange area represents areas of high disturbance and negligible archaeological potential within the project area.



Subject property ARRC site (project area) Waterbody Watercourse AHIMS site ID 45-5-2280 Archaeological potential Area of negligible archaeological potential (highly disturbed or beyond 200 m from Oaky Creek) Boundary of LQ1 (low archaeological potential <2 artefacts/m2)

KEY

Archaeological potential

Luddenham Advanced Resource Recovery Centre Aboriginal Cultural Heritage Assessment Figure 8.1

GDA 1994 MGA Zone 56 N

9 Significance assessment

9.1 General

All Aboriginal objects in NSW are protected under the *National Parks and Wildlife Act 1974* (NPW Act). It is recognised that the destruction of sites may be necessary to allow other activities or developments to occur. In order for the consent authority to make informed decisions on such matters, an important element of cultural resource management is determining the significance of cultural heritage places and objects to understand what may be lost; and how best it can be mitigated. However, it is highlighted that something can be of little or no significance and still be protected under the Act.

Cultural significance is outlined in Article 1.2 of the *Burra Charter* - the best practise document for managing cultural heritage – as "aesthetic, historic, scientific, social or spiritual value for past, present or future generations" (Australia ICOMOS 2013). These values are reiterated in the NSW guidelines, which determines cultural significance of a place can be assessed by identifying the values that are present across the subject area and assessing what is important and why (OEH 2011). In assessing the scientific significance of sites, aspects such as rarity and representativeness and the integrity must be considered. Generally, a site or object that is rare will have a heightened significance, although a site that is suitable of conservation as 'representative' of its type will also be significant. Conversely an extremely rare site may no longer be significant if its integrity has been sufficiently compromised.

The criteria adopted for this report are defined in Table 9.1. The management implications of these sites' significance are discussed in subsequent sections.

Criterion	Definition
Social value —Does the place have a strong or special association with a particular community or cultural group for social, cultural or spiritual reasons?	Social (or cultural) value refers to the spiritual, traditional, historical or contemporary associations and attachments the place or area has for Aboriginal people. Social or cultural value is how people express their connection with a place and the meaning that place has for them.
	Social or cultural value can only be identified through consultation with Aboriginal people.
Historic value —Is the place important to the cultural or natural history of the local area and/or region and/or state?	Historic value refers to the association of a place with a historically important person, event, phase or activity. Historic places do not always have physical evidence of their historical importance (such as structures, planted vegetation or landscape modifications). They may have 'shared' historic values with other (non-Aboriginal) communities.
Scientific (archaeological) value—Does the place have potential to yield information that will contribute to an understanding of the cultural or natural history of the local area and/or region and/or state?	Scientific (archaeological) value refers to the importance of a landscape, area, place or object because of its rarity, representativeness and the extent to which it may contribute to further understanding and information.
	Information about scientific values is gathered through archaeological investigation undertaken in this report.

Table 9.1 A summary of criteria used to assess the cultural significance (OEH 2011, 8–10)

Table 9.1 A summary of criteria used to assess the cultural significance (OEH 2011, 8–10)

Criterion	Definition
Aesthetic value —Is the place important in demonstrating aesthetic characteristics in the local, regional, and/or State environment?	Aesthetic value refers to the sensory, scenic, architectural and creative aspects of the place. It is often linked with social value, and can consider form, scale, colour, texture and material of the fabric or landscape, and the smell and sounds associated with the place and its use. This value is only relevant to archaeological sites on only rare occasions, such as rockshelters that contain art, or culturally modified trees in prominent positions, etc.

9.2 Significance assessment

The assessment identified one previously recorded site (AHIMS #45-5-2280) within the subject property; however, the location was erroneously recorded, and the site inspection found that it is outside the curtilage of the project area. This site was assessed as of low archaeological significance (Dean-Jones 1991) because it presented as a small cluster of artefacts that were not in situ, and whose broader context had been largely destroyed. However, a subsequent assessment in 2000 (Umwelt) found, in consultation with Gandangara LALC, that the site has cultural value and determined that the area should be conserved.

Consultation with Aboriginal stakeholders indicated that they believe that the artefact scatter that is present across the study are is significant, particularly because of the cumulative loss and disruption to culture and Country for over two hundred years. At the current rate of development, they believe that there will be no land left for descendants and elders. They emphasise that it is important to acknowledge that all these sites are connected within the cultural landscape and should not be separated into discrete sites. Therefore, the significance of LQ1 lies in its representative value as part of a greater whole.

Based on nearby investigations and the results of test excavation, a significance assessment for the site identified during test excavation (LQ1) within the project area is presented in Table 9.2.

Table 9.2 Significance assessment of LQ1

Value	Site specific discussion	Grade of significance
Social	Consultation to date has sought to determine whether any socio-cultural or historic heritage value relates specifically to the project area more broadly regardless of archaeological evidence.	High – based on RAP feedback.
	The general consensus was that, prior to the survey, RAPs did not know of the location of specific sites within the project area but were told by their Elders that such site types may exist within the landscape. RAPs acknowledged that this was partly due to the physical and cultural dislocation from the landscape faced by local Aboriginal people after colonial settlement.	
	Overall, the Aboriginal community has identified that heritage values in the subject property are directly linked with Aboriginal people's relationship with the land. No specific socio-cultural or historical connection has been linked to the identified sites. DCAC have emphasised the high significance all sites have to Aboriginal people and the interconnections between them.	
Historic	None identified. Refer to above.	Not identified

Table 9.2Significance assessment of LQ1

Value	Site specific discussion	Grade of significance
Scientific (archaeological)	· · · · · · · · · · · · · · · · · · ·	Low
	Test excavation identified a sparse and uneven artefact distribution. The sample size (seven artefacts) is too small to provide informative data regarding artefact types and materials that would further contribute to our archaeological understanding of the Luddenham area. Adjacent studies, investigations and salvage excavation for the Western Sydney Airport has yielded much more diverse and complex archaeological information about the local area.	
Aesthetic	The project area has been heavily modified in the period since 1788. There are no elements on the site which reflect the pre-1788 landscape or the natural resources which may have contributed to past Aboriginal use of the area.	Low

10 Impact assessment

10.1 Proposed works

The proposed works are described in Section 1.3 and shown in Figure 1.2.

The nature of the main impact type during construction of the ARRC include sub-surface excavation to level the site, and for water tanks, building footings and services. The upgraded access road will primarily be constructed in the same location of the existing gravel road, with a new road base and sealed surface. For the purposes of this assessment, it is assumed that the entire project area will be disturbed to some extent.

10.2 Impacts to known sites

There are no previously registered Aboriginal sites within the project area. The location of AHIMS site (#45-5-2280), which is incorrectly recorded on AHIMS, is outside the project area and is protected by fencing.

The test excavation program identified a low-density, randomly distributed artefact scatter across the project area (LQ1: AHIMS #45-5-5360). LQ1 will be directly impacted by the proposed development.

AHIMS#	Site name	Site type	Significance rating	Type of harm	Degree of harm	Consequence of harm	Overall management strategy
45-5-2280	Oaky Creek 1	Artefact scatter	Low	None	None	No loss of value	Avoidance
45-5-5360	LQ1	Artefact scatter	Low	Direct	Total	Total loss of value	Unmitigated impact

Table 10.1 Site significance, impact and management summary

10.3 Cumulative impacts

The landscape surrounding the development footprint has been modified by historical land use practices and past disturbances associated with land clearing and livestock grazing. The most widespread impact in the region has occurred from farming, quarrying and industrial development and the development associated with the Western Sydney Airport site. These activities are likely to have removed many modified trees, reduced the archaeological integrity of many open stone artefact sites and would have destroyed more fragile site types such as hearths, ceremonial sites and burials.

LQ1 (#45-5-5360) is of low archaeological significance. The site does not warrant conservation and the development footprint will not result in a significant loss to Aboriginal cultural heritage values in the local area, even considering the widespread development of the area.

Considering the above, the surrounding area has been subject to widespread damage to Aboriginal sites. The development footprint represents a small contribution to regional cumulative impacts, taking into account the avoidance and ongoing protection of AHIMS site #45-5-2280.

10.4 Intergenerational equity

Aboriginal heritage management is based on the principle of intergenerational equity, which has the intention to ensure present generations consider future generations when making management decisions. This principle is possibly the most relevant part of the notion of ecologically sustainable development (ESD) when considering Aboriginal cultural heritage management.

The local archaeological resource will remain in that the riparian corridor along Oaky Creek and the registered AHIMS site will be avoided by the project. Artefacts within the project area were retrieved during the test excavation and will be recorded in the AHIMS database. Consultation with RAPs in conjunction with their review of the ACHA, indicated RAP support for the proposal to retain the artefacts at the GLALC Keeping Place. EMM will organise for the transfer of the artefacts and associated data to GLALC. A Care Agreement will be lodged with Heritage NSW for the recovered objects.

11 Management

11.1 Aboriginal heritage management framework

This section describes the management measures for identified Aboriginal cultural heritage values in the project area. The management measures proposed in this chapter respond to:

- the impacts identified in the preceding chapter;
- the assessed significance of the Aboriginal sites;
- the views of the Aboriginal community as represented by the RAPs;
- the need to address intergenerational equity in the values of Aboriginal heritage;
- the need to protect sites not impacted by the project but under the care of the proponent; and
- the need to mitigate the loss and disturbance of impacted Aboriginal sites and Aboriginal objects.

The development of heritage management recommendations in the context of a proposed development is based on the significance, or heritage values of the site concerned, the relevant legislative protection and the feasibility of the overall development.

Based on the findings of this ACHA, the project area does not contain any significant sites that can provide novel or significant insights into past land use of the area. Historical quarrying, and development adjacent to the project area, has likely caused significant impacts to underlying deposits and associated cultural material.

11.2 Management measures

- 1. AHIMS site #45-5-2280 will continue to be avoided and protected by fencing.
- 2. The corrected coordinates for AHIMS site #45-5-2280 have been entered in the AHIMS database.
- 3. The riparian corridor along the western bank of Oaky Creek will continue to be avoided.
- 4. Site LQ1 (#45-5-5360) identified through archaeological test excavation is of low archaeological significance and no further archaeological investigation or salvage is warranted. This site will receive unmitigated project impacts.
- 5. A Site Card and Aboriginal Site Impact Recording form for LQ1 has been completed and submitted to the AHIMS Registrar.
- 6. RAP site officers requested that the artefacts recovered during the test excavation (LQ1) be retained at the Gandangara Local Aboriginal Land Council Keeping Place. A keeping place is a designated long-term secure area for the purpose of storing and curating Aboriginal cultural materials and their associated documentation. Consultation with RAPs in conjunction with their review of the ACHA, indicated RAP support for the proposal to retain the artefacts at the GLALC Keeping Place. A Care Agreement should be lodged with Heritage NSW for the recovered objects.
- 7. If works are to proceed, the following would occur:

- In the event that unexpected Aboriginal objects, sites or places are discovered in the project area, it is a requirement that Heritage NSW is notified of the existence of Aboriginal objects as soon as practicable after they are first identified. This is done through the completion of an Aboriginal Site Card which is submitted to the Registrar of AHIMS for inclusion on the Aboriginal site database. Under s85A of the NPW Act, Aboriginal objects remain the property, and under the protection of, the Crown until formal transfer to a person or persons of a class prescribed by the regulations occurs.
- In the event that known or suspected human skeletal remains are encountered within the project area, the following procedure should be followed:
 - the immediate vicinity will be secured to protect the find and the find will be immediately reported to the work supervisor who will immediately advise the site supervisor or other nominated senior staff member;
 - the environmental manager or other nominated senior staff member will notify the police and the state coroner on the same day of the find (as required for all human remains discoveries);
 - the environmental manager or other nominated senior staff member will contact Heritage NSW for advice on identification of the skeletal material as Aboriginal and if so, management of the material;
 - if it is determined that the skeletal material is ancestral Aboriginal remains, the Aboriginal community will be contacted, and consultative arrangements will be made to discuss ongoing care of the remains;
 - the site will be recorded in accordance with the NPW Act and Heritage NSW guidelines; and
 - if the remains are historical and not of Aboriginal origin, the Heritage Division of Heritage NSW will be notified for further instruction.

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Appendix A





Extensive search - Site list report

Client Service ID : 478315

<u>SiteID</u>	SiteName	Datum	<u>Zone</u>	Easting	<u>Northing</u>	<u>Context</u>	<u>Site Status</u>	<u>SiteFeature</u>	<u>s</u>	<u>SiteTypes</u>	<u>Reports</u>
45-5-2788	B 112	AGD	56	291490	6248790	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Navir	n Officer Her	itage Consulta	nts Pty Ltd			<u>Permits</u>		
45-5-2789	B 94	AGD	56	289140	6249400	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Navir	n Officer Her	itage Consulta	nts Pty Ltd			<u>Permits</u>		
45-5-2562	EG6	AGD	56	288745	6248166	Open site	Valid	Artefact : 6		Open Camp Site	
	<u>Contact</u>	<u>Recorders</u>	Annie	e Nicholson					<u>Permits</u>		
45-5-2781	B86	AGD	56	290820	6248920	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Navir	n Officer Her	itage Consulta	nts Pty Ltd		ļ	<u>Permits</u>		
45-5-2782	B84	AGD	56	289980	6248560	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Navir	n Officer Her	itage Consulta	nts Pty Ltd]	<u>Permits</u>		
45-5-2710	DUKE 9	AGD	56	292500	6251800	Open site	Valid	Artefact : -			1345,1539,473 7
	<u>Contact</u>	<u>Recorders</u>	Domi	nic Steele A	chaeological (Consulting		j	<u>Permits</u>		
45-5-2711	CDG1	AGD		293300	6252800	-	Valid	Artefact : -			1345,1539,473 7
	Contact	Recorders			chaeological (-			<u>Permits</u>		
45-5-2816	IF/1	AGD	56	292300	6251750	Open site	Valid	Artefact : -			4737
	<u>Contact</u>	<u>Recorders</u>			chaeological (-			<u>Permits</u>		
45-5-2632	B 44	AGD	56	290900	6248950	Open site	Valid	Artefact : -			
	Contact Gandangara LALC	<u>Recorders</u>			itage Consulta				<u>Permits</u>		
45-5-2783	B43	AGD	56	289150	6248700	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>			itage Consulta	nts Pty Ltd			<u>Permits</u>		
45-5-5240	Elizabeth Drive AFT 2	GDA	56	292088	6249612	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>			-	Pty Ltd,Miss.K	•		<u>Permits</u>		
45-5-2762	B95	AGD	56	289290	6249700	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Navir	n Officer Her	itage Consulta	nts Pty Ltd		<u>]</u>	<u>Permits</u>		
45-5-2763	B87	AGD	56	291080	6249400	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Navir	n Officer Her	itage Consulta	nts Pty Ltd		j	<u>Permits</u>		
45-5-2764	B82	AGD	56	289100	6249470	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Navir	n Officer Her	itage Consulta	nts Pty Ltd		<u> </u>	<u>Permits</u>		
45-5-2765	B83	AGD	56	289050	6249590	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Navir	n Officer Her	itage Consulta	nts Pty Ltd]	Permits		
45-5-2768	B41	AGD	56	292100	6249010	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Navir	o Officer Her	itage Consulta	nts Pty Ltd		I	<u>Permits</u>		
45-5-4708		GDA		288626	6252917	Open site	Valid	Artefact : -			

Report generated by AHIMS Web Service on 20/01/2020 for Ryan Desic for the following area at Datum :GDA, Zone : 56, Eastings : 284000 - 294000, Northings : 6248000 - 6253000 with a Buffer of 0 meters. Additional Info : Due Dil Assessment. Number of Aboriginal sites and Aboriginal objects found is 110



Extensive search - Site list report

Client Service ID : 478315

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	<u>Northing</u>		<u>Site Status</u>	<u>SiteFeatur</u>		<u>SiteTypes</u>	<u>Reports</u>
	Contact	Recorders				tingale Consulting P			<u>Permits</u>		
45-5-4688	B137	GDA		288290	6248680	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Navi	n Officer Her	-	nts Pty Ltd,Mrs.Nico	la Hayes		Permits		
45-5-4689	B138	GDA	56	289169	6248810	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Nico	la Hayes		Permits		
45-5-4690	B139	GDA	56	289336	6248914	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Nico	la Hayes		Permits		
45-5-4691	B140	GDA	56	289400	6248982	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Nico	la Hayes		<u>Permits</u>		
45-5-4692	B141	GDA	56	289232	6248893	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Nico	la Hayes		Permits		
45-5-5259	Elizabeth Drive AFT 1	GDA	56	293377	6249426	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Kelle	her Nighting	ale Consulting	Pty Ltd, Miss. Krister	n Taylor		<u>Permits</u>		
45-5-5230	Elizabeth Precinct Isolated Find 03 (EPIF 03)	GDA	56	293375	6249980	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Artef	fact - Cultura	l Heritage Man	agement ,Miss.Jenni	fer Norfolk		<u>Permits</u>		
45-5-5231	Elizabeth Precinct Isolated Find 02 (EPIF 02)	GDA	56	293466	6250004	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Arte	fact - Cultura	l Heritage Man	agement ,Miss.Jenni	fer Norfolk		<u>Permits</u>		
45-5-5232	Elizabeth Precinct Isolated Find 01 (EPIF 01)	GDA	56	293416	6249892	Open site	Valid	Artefact : -			
	Contact	<u>Recorders</u>	Artef	fact - Cultura	l Heritage Man	agement ,Miss.Jenni	fer Norfolk		Permits		
45-5-5233	Elizabeth Precinct Artefact Scatter 01 (EPAS 01)	GDA	56	293412	6249873	Open site	Valid	Artefact : -			
	Contact	Recorders	Arte	fact - Cultura	l Heritage Man	agement ,Miss.Jenni	fer Norfolk		Permits		
45-5-5234	Elizabeth Precinct PAD 03	GDA		293924	6249724	Open site	Valid	Potential			
								Archaeolog	ical		
								Deposit (PA	2		
	Contact	<u>Recorders</u>				agement ,Miss.Jenni			<u>Permits</u>		
45-5-5235	Elizabeth Precinct PAD 02	GDA	56	293327	6249529	Open site	Valid	Potential			
								Archaeolog Deposit (PA			
	Contact	Recorders	Artef	fact - Cultura	l Heritage Man	agement ,Miss.Jenni	fer Norfolk	Deposit (F	Permits		
45-5-5236	Elizabeth Precinct PAD 01	GDA		293094	6249617	Open site	Valid	Potential	<u> </u>		
						•		Archaeolog	ical		
								Deposit (PA	AD):-		
	Contact	<u>Recorders</u>			0	agement ,Miss.Jenni			Permits		
45-5-2550	CGD1	AGD	56	293350	6252800	Open site	Valid	Artefact : -		Open Camp Site	98435
	<u>Contact</u>	<u>Recorders</u>	Dom	inic Steele A	chaeological (onsulting			Permits		
45-5-2551	CGD6	AGD	56	292700	6251900	Open site	Valid	Artefact : -		Open Camp Site	

Report generated by AHIMS Web Service on 20/01/2020 for Ryan Desic for the following area at Datum :GDA, Zone : 56, Eastings : 284000 - 294000, Northings : 6248000 - 6253000 with a Buffer of 0 meters. Additional Info : Due Dil Assessment. Number of Aboriginal sites and Aboriginal objects found is 110



Extensive search - Site list report

Client Service ID: 478315

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	Northing	<u>Context</u>	<u>Site Status</u>	SiteFeatures	<u>SiteTypes</u>	<u>Reports</u>
	Contact	Recorders	Dom	inic Steele A	rchaeological (Consulting		Permits		
45-5-2552	CGD3	AGD	56	293000	6252800	Open site	Valid	Modified Tree (Carved or Scarred) : -	Scarred Tree	98435
	Contact	Recorders	Dom	inic Steele A	rchaeological (Consulting		Permits		
45-5-2553	CGD4	AGD	56	293300	6252500	Open site	Valid	Artefact : -, Modified Tree (Carved or Scarred) : -	Open Camp Site,Scarred Tree	98435
	<u>Contact</u>	<u>Recorders</u>			rchaeological (Consulting		<u>Permits</u>		
45-5-2504	RC 8 - "Roscrea 8"	AGD	56	284100	6251880	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	<u>Recorders</u>	Step	hanie Garling	S			Permits		
45-5-2505	RC 7 - "Roscrea 7"	AGD	56	284230	6250620	Open site	Valid	Artefact : -	Open Camp Site	
	<u>Contact</u>	<u>Recorders</u>	Doct	or.Jo McDon	ald,Stephanie	Garling		Permits		
45-5-2506	RC 6 - "Roscrea 6"	AGD	56	284130	6250740	Open site	Valid	Artefact : -	Isolated Find	
	<u>Contact</u>	Recorders	Doct	or.Jo McDon	ald,Stephanie	Garling		Permits		
45-5-2508	RC 4 - "Roscrea 4"	AGD	56	284030	6250980	Open site	Valid	Artefact : -	Open Camp Site	
	<u>Contact</u>	Recorders	Doct	or.Jo McDon	ald,Stephanie	Garling		Permits		
45-5-2509	RC 3 - "Roscrea 3"	AGD		284250	6251190	Open site	Valid	Artefact : -	Open Camp Site	
	<u>Contact</u>	Recorders	Doct	or.Jo McDon	ald,Stephanie	Garling		Permits		
45-5-2510	RC 2 - "Roscrea 2"	AGD	56	284340	6252070	Open site	Valid	Artefact : -	Open Camp Site	
	Contact	Recorders	Doct	or.Io McDon	ald,Stephanie	Garling		Permits		
45-5-2511	RC 1 - "Roscrea 1"	AGD		284290	6252080	Open site	Valid	Artefact : -	Open Camp Site	
	<u>Contact</u>	Recorders	Doct	or.Io McDon	ald,Stephanie	Garling		Permits		
45-5-2309	BC/ED1	AGD		292260	6249550	Open site	Valid	Artefact : -	Open Camp Site	3346
	Contact	Recorders	Hele	n Brayshaw				Permits		
45-5-2280	Oaky Creek 1	AGD		289000	6249350	Open site	Valid	Artefact : -	Open Camp Site	2378
	Contact	Recorders	Pam	Dean-Jones,	^o lones			Permits		
45-6-1775	Lec 9;	AGD		293200	6252700	Open site	Valid	Artefact : -	Open Camp Site	1345,98435
	Contact	Recorders				ologists (MDCA)		Permits	· · · · · · · ·	,
45-5-0215	South Creek	AGD	5	293800	6249900	Open site	Valid	Grinding Groove : -	Axe Grinding	362
10 0 0210		nub	00	2,0000	0217700	opensite	, and	armaning aroover	Groove	001
	Contact	Recorders	Ms.L	aila Haglund				Permits		
45-5-0496	Fleurs1 Fleurs Radio Telescope	AGD	56	293750	6250730	Open site	Valid	Artefact : -	Open Camp Site	961,1018,9843 5
	<u>Contact</u>	<u>Recorders</u>	Univ	ersity of Syd	ney			<u>Permits</u>		
45-5-0528	Fleurs 2 (Fleurs Prospect)	AGD	56	292650	6251150	Open site	Valid	Artefact : -	Open Camp Site	1018

Report generated by AHIMS Web Service on 20/01/2020 for Ryan Desic for the following area at Datum :GDA, Zone : 56, Eastings : 284000 - 294000, Northings : 6248000 - 6253000 with a Buffer of 0 meters. Additional Info : Due Dil Assessment. Number of Aboriginal sites and Aboriginal objects found is 110



Extensive search - Site list report

Client Service ID : 478315

<u>SiteID</u>	<u>SiteName</u>		<u>Datum</u>	<u>Zone</u>	Easting	Northing	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
	<u>Contact</u>		<u>Recorders</u>		ard Wright				Permi	its	
45-5-2991	TCE 1		AGD	56	293300	6252700	Open site	Valid	Artefact : -		99352
	<u>Contact</u>	T Russell	<u>Recorders</u>	Dom	inic Steele Ar	chaeological (Consulting		<u>Permi</u>	<u>its</u> 2056	
45-5-5066	B129		GDA	56	289263	6249105	Open site	Valid	Artefact : 1		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Jo Di	bden	Permi	its	
45-5-5068	B131		GDA	56	291374	6249478	Open site	Valid	Artefact : 1		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Jo Di	bden	<u>Permi</u>	its	
45-5-5071	B134		GDA	56	288311	6248711	Open site	Valid	Artefact : 1		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Jo Di	bden	<u>Permi</u>	its	
45-5-5086	B164		GDA	56	291416	6249269	Open site	Valid	Artefact : -		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permi</u>	its	
45-5-5087	B165		GDA	56	291638	6249555	Open site	Valid	Artefact : -		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	Permi	ts	
45-5-5088	B166		GDA	56	291597	6249204	Open site	Valid	Artefact : -		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permi</u>	its	
45-5-5089	B163		GDA	56	291331	6249177	Open site	Valid	Artefact : -		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permi</u>	its	
45-5-5091	B145		GDA	56	287546	6248235	Open site	Valid	Artefact : -		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permi</u>	its	
45-5-5094	B154		GDA	56	291387	6249360	Open site	Valid	Artefact : -		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permi</u>	its	
45-5-5095	B153		GDA	56	292169	6249253	Open site	Valid	Artefact : -		
	<u>Contact</u>		Recorders	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	Permi	its	
45-5-5096	B152		GDA	56	292043	6249416	Open site	Valid	Artefact : -		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permi</u>	its	
45-5-5097	B151		GDA	56	291950	6249517	Open site	Valid	Artefact : -		
	<u>Contact</u>		Recorders	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	Permi	its	
45-5-5099	B146		GDA	56	291304	6248825	Open site	Valid	Artefact : -		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	Permi	ts	
45-5-5100	B147		GDA	56	291272	6248841	Open site	Valid	Artefact : -		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	Permi	its	
45-5-5101	B149		GDA	56	291781	6249036	Open site	Valid	Artefact : -		
	<u>Contact</u>		<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	Permi	its	
45-5-5079	B155		GDA	56	292110	6248827	Open site	Valid	Artefact : -		

Report generated by AHIMS Web Service on 20/01/2020 for Ryan Desic for the following area at Datum :GDA, Zone : 56, Eastings : 284000 - 294000, Northings : 6248000 - 6253000 with a Buffer of 0 meters. Additional Info : Due Dil Assessment. Number of Aboriginal sites and Aboriginal objects found is 110



Extensive search - Site list report

Client Service ID: 478315

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	Northing	<u>Context</u>	<u>Site Status</u>	SiteFeatures	<u>SiteTypes</u>	<u>Reports</u>
	Contact	<u>Recorders</u>	Navii	n Officer Heri	tage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permits</u>		
45-5-5080	B156	GDA	56	291953	6248581	Open site	Valid	Artefact : -		
	Contact	<u>Recorders</u>	Navii	n Officer Heri	tage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permits</u>		
45-5-5081	B157	GDA	56	292146	6248243	Open site	Valid	Artefact : -		
	Contact	Recorders	Navii	n Officer Heri	tage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permits</u>		
45-5-5085	B162	GDA	56	291157	6248456	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	Navii	n Officer Heri	tage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permits</u>		
45-5-5102	B148	GDA	56	291448	6248568	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Navii	n Officer Heri	tage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	Permits		
45-5-5103	B150	GDA	56	291780	6249055	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Navii	n Officer Heri	tage Consulta	nts Pty Ltd,Miss.Jasn	nine Fenyvesi	<u>Permits</u>		
45-5-5105	PAD 1	GDA	56	288830	6250071	Open site	Valid	Potential Archaeological		
								Deposit (PAD) : -		
45 5 4044	Contact	Recorders			-	nts Pty Ltd,Miss.Jasn	-	<u>Permits</u>		
45-5-4941	LU-IA-17	GDA			6248750	Open site	Valid	Artefact : -		
45-5-5022	Contact B113	Recorders				ey,Mr.Luke Wolfe	Valid	Permits Artefact : 1		
45-5-5022		GDA			6248980	Open site				
45 5 5172	Contact	Recorders			0	nts Pty Ltd,Mrs.Jo Di		Permits		
45-5-5172	B170	GDA		292275	6249513	Open site	Valid	Artefact : -		
45-5-5173	<u>Contact</u>	Recorders GDA			0	nts Pty Ltd,Miss.Jasn	Valid	Permits Artefact : -		
45-5-51/5	B169					•				
45 5 5174	Contact	Recorders			0	nts Pty Ltd,Miss.Jasn	5	Permits		
45-5-5174	B168	GDA			6249371	Open site	Valid	Artefact : -		
	Contact B167	Recorders				nts Pty Ltd,Miss.Jasn	nine Fenyvesi Valid	<u>Permits</u>		
45-5-5175		GDA				Open site		Artefact : -		
45 5 5050	Contact	Recorders			0	nts Pty Ltd,Miss.Jasn	5	<u>Permits</u>		
45-5-5058	B121	GDA			6248734	Open site	Valid	Artefact : 1		
	Contact	Recorders			0	nts Pty Ltd,Mrs.Jo Di		Permits		
45-5-5059	B122	GDA		288102		Open site	Valid	Artefact : 1		
	Contact	Recorders			0	nts Pty Ltd,Mrs.Jo Di		Permits		
45-5-5064	B127	GDA			6248012	Open site	Valid	Artefact : 1		
	Contact	Recorders				nts Pty Ltd,Mrs.Jo Di		Permits		
45-5-5065	B128	GDA			6248993	•	Valid	Artefact : 1		
	Contact	Recorders	Navii	n Officer Heri	tage Consulta	nts Pty Ltd,Mrs.Jo Di	bden	<u>Permits</u>		

Report generated by AHIMS Web Service on 20/01/2020 for Ryan Desic for the following area at Datum :GDA, Zone : 56, Eastings : 284000 - 294000, Northings : 6248000 - 6253000 with a Buffer of 0 meters. Additional Info : Due Dil Assessment. Number of Aboriginal sites and Aboriginal objects found is 110



Extensive search - Site list report

Client Service ID: 478315

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	Northing	<u>Context</u>	<u>Site Status</u>	<u>SiteFeatures</u>	<u>SiteTypes</u>	<u>Reports</u>
45-5-2507	RC 5 - "Roscrea 5"	AGD	56	284180	6250790	Open site	Valid	Artefact : -	Isolated Find	
	Contact	Recorders			ald,Stephanie (Garling		Perm	<u>nits</u>	
45-5-2664	B89	AGD	56	288300	6248680	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd		Perm	<u>nits</u>	
45-5-2665	B88	AGD	56	291220	6249120	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd		<u>Pern</u>	<u>nits</u>	
45-5-2667	B90	AGD	56	291800	6248760	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd		Perm	<u>nits</u>	
45-5-2668	B93	AGD	56	289150	6248250	Open site	Valid	Artefact : -		
	Contact	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd		<u>Pern</u>	<u>nits</u>	
45-5-2678	B80	AGD	56	289100	6248650	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd		Perm	<u>nits</u>	
45-5-2679	B81	AGD	56	289000	6248800	Open site	Valid	Artefact : -		
	<u>Contact</u>	Recorders	Navi	n Officer Her	itage Consulta	nts Pty Ltd		Pern	<u>iits</u>	
45-5-2705	B15	AGD	56	291000	6248120	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd		Pern	<u>nits</u>	
45-5-3802	Isolated Artefact 1 (Penrith)	GDA	56	287238	6252000	Open site	Valid	Artefact : 1		
	<u>Contact</u>	Recorders	Ms.M	ary Dallas				Pern	<u>iits</u>	
45-5-3803	Isolated Artefact 2 (Penrith)	AGD	56	287504	6252095	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>	Ms.M	ary Dallas				Pern	<u>uits</u>	
45-5-3804	Isolated Artefact 4 (Penrith)	AGD	56	287276	6251479	Open site	Valid	Artefact : 1		
	<u>Contact</u>	<u>Recorders</u>		ary Dallas				Perm	<u>nits</u>	
45-5-3805	OS 1	AGD	56	287973	6252553	Open site	Valid	Artefact : 3		
	<u>Contact</u>	Recorders	Ms.M	ary Dallas				Pern	<u>nits</u>	
45-5-3806	OS 2	AGD	56	286575	6252169	Open site	Valid	Artefact : 2		
	Contact	<u>Recorders</u>	Ms.M	ary Dallas				<u>Pern</u>	<u>nits</u>	
45-5-3808	OS 3	AGD	56	287435	6252155	Open site	Valid	Artefact : 4		
	<u>Contact</u>	<u>Recorders</u>	Navi	n Officer Her	itage Consulta	nts Pty Ltd		Pern	<u>iits</u>	
45-5-4779	TNR AFT 13	GDA	56	286413	6252059	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Kelle	her Nighting	ale Consulting	Pty Ltd,Mr.Benjam	in Anderson	Pern	<u>iits</u>	
45-5-4783	TNR AFT 18	GDA	56	286462	6249630	Open site	Valid	Artefact : -		
	Contact	<u>Recorders</u>	Kelle	her Nighting	ale Consulting	Pty Ltd,Mr.Benjam	in Anderson	Perm	<u>nits</u>	
45-5-4786	TNR AFT 14	GDA	56	286758	6251468	Open site	Valid	Artefact : -		
	<u>Contact</u>	<u>Recorders</u>	Kelle	her Nighting	ale Consulting	Pty Ltd,Mr.Benjam	in Anderson	Perm	<u>nits</u>	

Report generated by AHIMS Web Service on 20/01/2020 for Ryan Desic for the following area at Datum :GDA, Zone : 56, Eastings : 284000 - 294000, Northings : 6248000 - 6253000 with a Buffer of 0 meters. Additional Info : Due Dil Assessment. Number of Aboriginal sites and Aboriginal objects found is 110



Extensive search - Site list report

Client Service ID: 478315

<u>SiteID</u>	SiteName	<u>Datum</u>	<u>Zone</u>	Easting	Northing	<u>Context</u>	<u>Site Status</u>	SiteFeatures	6	<u>SiteTypes</u>	<u>Reports</u>
45-5-4787	TNR AFT 17	GDA	56	287144	6249775	Open site	Valid	Artefact : -			
	Contact	Recorders	Kelle	her Nighting	ale Consulting	, Pty Ltd,Mr.Benjamir	n Anderson	E	<u>Permits</u>		
45-5-4788	TNR AFT 15	GDA	56	286985	6250420	Open site	Valid	Artefact : -			
	<u>Contact</u>	<u>Recorders</u>	Kelle	her Nighting	ale Consulting	g Pty Ltd,Mr.Benjamin	n Anderson	<u>P</u>	<u>Permits</u>		
45-5-4790	TNR AFT 19	GDA	56	287276	6249519	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Kelle	her Nighting	ale Consulting	g Pty Ltd,Mr.Benjamin	n Anderson	P	<u>Permits</u>		
45-5-4792	TNR AFT 20	GDA	56	287212	6248889	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Kelle	her Nighting	ale Consulting	g Pty Ltd,Mr.Benjamin	n Anderson	<u> </u>	<u>Permits</u>		
45-5-4793	TNR AFT 22	GDA	56	287032	6248550	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Kelle	her Nighting	ale Consulting	g Pty Ltd,Kelleher Nig	htingale Consultin	g Pty Ltd,Mr <u>P</u>	<u>Permits</u>		
45-5-4794	TNR AFT 23	GDA	56	286651	6248317	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Kelle	her Nighting	ale Consulting	g Pty Ltd,Mr.Benjamin	n Anderson	<u> </u>	<u>Permits</u>		
45-5-4796	TNR AFT 16	GDA	56	287012	6250214	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Kelle	her Nighting	ale Consulting	g Pty Ltd,Mr.Benjamin	n Anderson	P	<u>Permits</u>		
45-5-4808	TNR IF 04	GDA	56	287033	6250644	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Kelle	her Nighting	ale Consulting	, Pty Ltd,Mr.Benjamir	n Anderson	<u>P</u>	<u>Permits</u>		
45-5-4936	M12-AS-02	GDA	56	289990	6251404	Open site	Valid	Artefact : -			
	Contact	Recorders				-Parramatta		<u>P</u>	<u>Permits</u>		
45-5-4748	M12 A2	GDA	56	292624	6251214	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Nicol	a Hayes	E	<u>Permits</u>		
45-5-4749	M12 A4	GDA	56	293785	6251051	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Nicol	a Hayes	P	<u>Permits</u>		
45-5-4750	M12 A3	GDA	56	292725	6251214	Open site	Valid	Artefact : -			
	Contact	Recorders	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Nicol	a Hayes	P	<u>Permits</u>		
45-5-4747	M12 A1	GDA	56	292194	6251184	Open site	Valid	Artefact : -			
	<u>Contact</u>	Recorders	Navi	n Officer Her	itage Consulta	nts Pty Ltd,Mrs.Nicol	a Hayes	P	<u>Permits</u>		

Report generated by AHIMS Web Service on 20/01/2020 for Ryan Desic for the following area at Datum :GDA, Zone : 56, Eastings : 284000 - 294000, Northings : 6248000 - 6253000 with a Buffer of 0 meters. Additional Info : Due Dil Assessment. Number of Aboriginal sites and Aboriginal objects found is 110

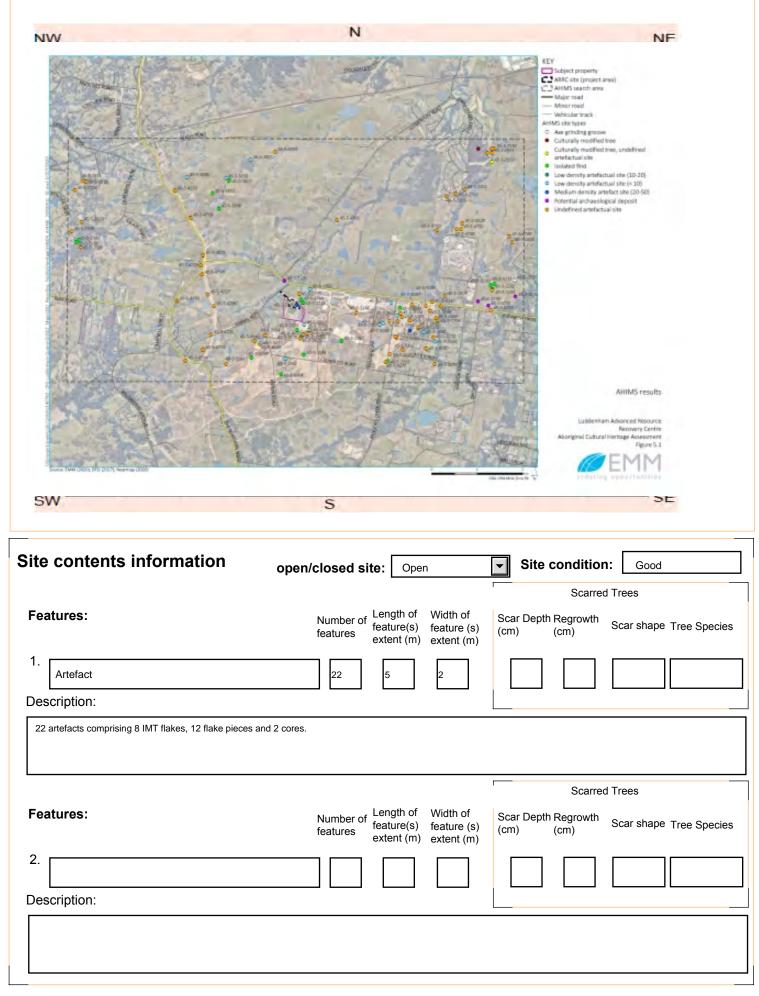


Aboriginal Site Recording Form

AHIMS Registrar PO Box 1967, Hurstville 2220 NSW

AHIMS site I	Date recorded: 29-10-2020
Site Location	Oaky Creek 1
Easting: 2	89189 Northing: 6249531 Coordinates must be in GDA (MGA)
Horizontal Ad	ccuracy (m): 5
Zone: 56	Location method: Non-Differential GPS
Recorder Info	Drmation le for the completion and submission of this form)
Title	Surname First name
Ms. Reid	Taylar
Organisation:	EMM Consulting Pty Ltd
Address:	175 Scott Street
Phone: 02490	074800 E-mail: treid@emmconsulting.com.au
Site Context	Information
Land Form Pattern:	Land Use:
Land Form Unit:	Vegetation:
Distance to Water (m):	Primary Report:
How to get to the site:	
Other site information:	Initially recorded in 1991 as 22 artefacts identified around the shoreline of a small pond in the floodplain of Oaky Creek. The site is currently fenced and protected. It is approximately 100m east of the recorded coordinates.

Site location map

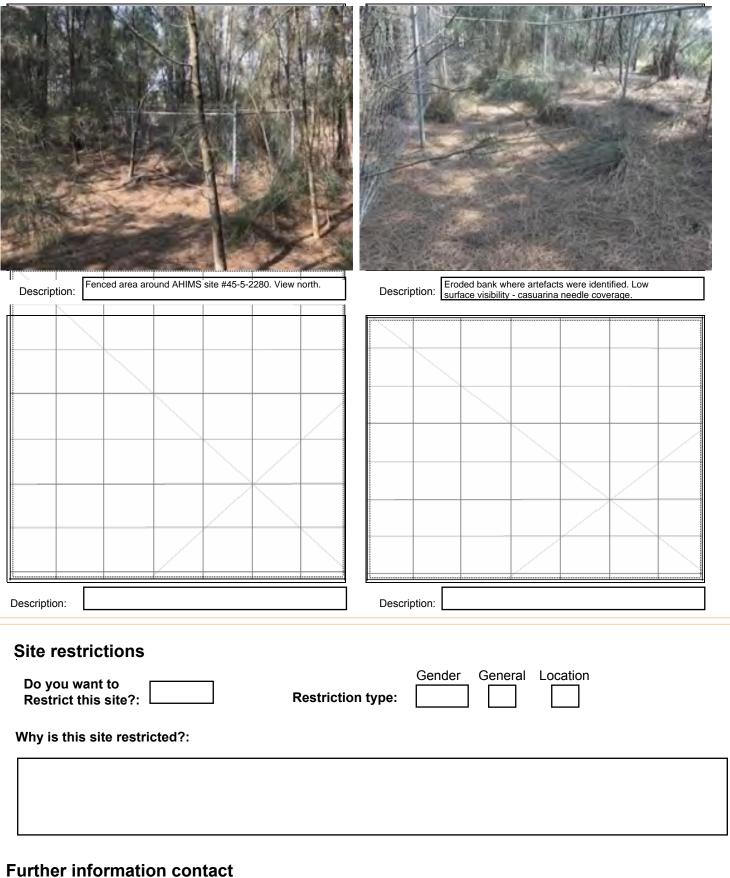


			Scarred Trees
Features:	features features	ength of Width of eature(s) feature (s) xtent (m) extent (m)	Scar Depth Regrowth (cm) (cm) Scar shape Tree Species
3.			
Description:			
			Scarred Trees
Features:	features	ength of Width of eature(s) feature (s) xtent (m) extent (m)	Scar Depth Regrowth (cm) (cm) Scar shape Tree Species
4.			
Description:			
			Scarred Trees
Features:	features feat	ength of Width of ature(s) feature (s) atent (m) extent (m)	Scar Depth Regrowth (cm) (cm) Scar shape Tree Species
5.			
Description:			
Other Site Info:	Initially recorded in 1991 as 22 artefacts identified around the sho Creek. The site is currently fenced and protected. It is approxima		

Site plan



Site photographs



Title	Surname	First name
Organisa	ition:	
Address		
Phone:	E-mail:	

4

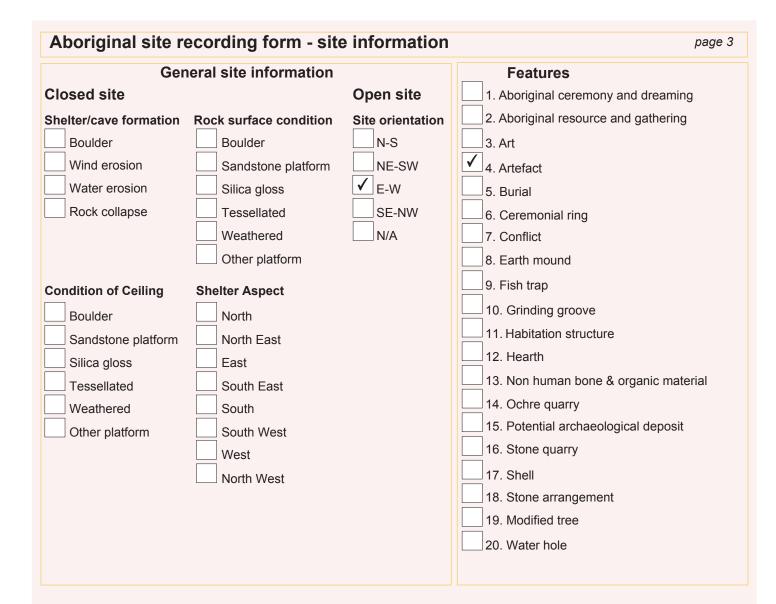


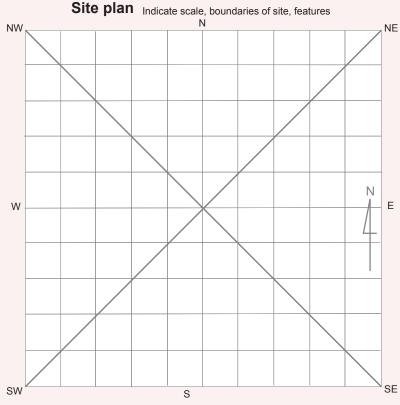
Aboriginal Site Recording Form

Senior Heritage Information Officer, Heritage NSW, Locked Bag 5020, NSW 2124

Office Use Only	
Date received / / Date entered into system / / Date catalogued /	
Entered by (I.D.)	
Information access	
	Office Use
Gender/male Gender/female Location restriction General restriction No access	Only
For further information contact:	
Nominated Trustee Title Surname First name Initials	
Title Surname First name Initials	
	Client on system
	System
Address	
Phone number	
Knowledge holder	
Title Surname First name Initials	.
	Client on system
Organisation	
Address	
Phone number	
Aboriginal Heritage Unit or Cultural Heritage Division Contacts	
Geographic location	
Site Name Luddenham Quarry 1 (LQ1)	
Easting 2 8 9 7 8 Northing 6 2 4 9 5 6 5 AGD/GDA GDA	
Mapsheet Image: Constraint of the second s	
Other registration	
Primary recorder	7
Title Surname First name Initials	
M r D e s i c R y a n R D R D	
Organisation E M M C o n s u I t i n g	Client on
Address 2 0 C h a n d o S t r e e t S t L e o n a r d s	system
Phone number 0 4 1 1 3 2 9 7 1 2 Fax	
Date recorded 7/10/2020	

Aboriginal site recording form - site information page 2				
	Open/close site	Open Site		
Site context				
Landform La	andform unit			
Mountainous	Beach	Tidal flat Upper slope	Stream bank	
Plain	Coastal rock platform	Cliff Plain	Stream channel	
Rolling hills	Dune	Crest Ridge	Swamp	
Steep hills	Intertidal flat	Flat Tor	Terrace	
✓ Undulating plain	Lagoon	✓ Lower slope Valley flat	Terrace flat	
Slope	Tidal creek	Mid slope Levy		
degrees				
Vegetation La	and use	Water		
Closed forest	Conservation	Distance to permanent water source	150 metres	
Grasslands	Established urban	Distance to temporary water source	150 metres	
Isolated clumps of trees	Farming-intensive	Name of nearest permanent water source	Oaky Creek	
Open forest	Farming-low intensity	Name of nearest temporary water		
Open woodland	Forestry			
Scrub	Industrial	Directions for relocat	ion	
Woodland	Mining	Refer to map		
✓ Cleared	Pastoral/grazing			
Revegetated	Recreation			
N/A	Semi-rural			
	Service corridor			
	Transport corridor			
	Urban expansion	Site location m	nap NE	
	Residential			
Current land tenure				
	overnment department			
✓ Private				
Primary report I.D.	(I.D. Office Use only)			
			N	
		w	N	
		SW S	SE	







Aboriginal s	ite recording	form - s	site interi	oretation	and	community	statement
						· · · · · · · · · · · · · · · · · · ·	

Aboriginal community interpretation and management recommendations

Preliminary site assessment

Site cultural and scientific analysis and preliminary management recommendations

Luddenham Quarry 1	(LQ1) is a subsurfa	ce artefact deposit o	f very low de	ensity identified dur	ring test excavation for the
Luddenham Resource	e Recovery Centre.				

-Seven stone artefacts were recovered during the test excavation, comprising silcrete and IMT (indurated _mudstone/tuff) flakes. The assemblage was dominated by unretouched flakes and flake fragments, distributed unevenly across the project area. Each artefact was from a different test excavation unit and all but one were recovered from the top 10 cm of soil. The other artefact was recovered from the second spit of TP9B (10-20 cm). The average artefact density for the site was 1.5 artefacts/m2.

Refer to attachments for more information.

This section should only be filled in by the endorsees

Endorsed by: Know	vledge holder	Native Title holder	Community consensus
Title	Surname	First name	Initials
Organisation			
Address			
Phone number	Fa:	× 🗌 🗌 🗌	
Attachments (No.)	Comments		
A4 location map			
B/W photographs			
Colour photographs			
Slides			
Aerial photographs			
Site plans, drawings			
Recording tables			
Other			
Feature inserts-No.			

7 Test excavation

7.1 Overview

A test excavation program was undertaken over three days from 25 to 27 August 2020. The program involved four archaeologists and up to four RAP representatives on each day.

The purpose of the test excavation was to build on the information obtained through desktop analysis, particularly the results of archaeological assessments at the adjacent Badgery's Creek airport site, which suggested that the project area had potential for sub-surface Aboriginal objects. Community consultation with RAPs indicated their strong desire for a test excavation programme in order to determine the potential for archaeological material and confirm the level of disturbance. Therefore, it was determined that test excavation be undertaken in order to characterise the archaeological deposit and contribute to updated significance and impact assessments, and in developing appropriate management measures.

7.2 Test excavation methods

The test excavation involved the following method:

- A series of linear transects were set out across area of moderate archaeological potential (Figure 7.1).
- Areas observed in the field to have substantial existing disturbance were avoided.
- 50 cm x 50 cm test excavation units were spaced at 20 m intervals along each transect.
- The first test excavation unit was dug manually with hand tools in 5 cm spits to identify the nature of the soils and to identify if a stratigraphic sequence existed. The remaining pits were dug in 10 cm spits.
- Each pit was excavated until basal clay was reached, or to 10 cm below the artefact bearing level identified at each transect.
- All excavated soil was sieved on-site using a wet sieving technique. The soil was sieved through a mix of 3 mm and 5 mm aperture mesh (Plate 7.1).
- All test excavation units were backfilled by the excavation team after each pit was recorded.
- Each test excavation unit was photographed, and soil profile/section drawing were completed.



Plate 7.1 Wet sieving on the northern edge of the project area. View south

7.2.1 Test excavation unit layout

Eleven linear transects, oriented north—south, were placed across the area of moderate potential within the project area. The test excavation units were spaced 20 m apart and each alternate transect was offset by 10 m (Figure 7.1). After 36 test excavation units had been dug across the project area, six test excavation units were added to further investigate localised artefact occurrences. The additional test excavation units were offset from test excavation units in transects 1 and 2 from where artefacts had been recovered. This concentrated test excavation to an area down slope closest to Oaky Creek and where soil deposit was highest, and towards the southern boundary of the project area where artefacts had been identified (Plate 7.2).



Plate 7.2 View north from the quarry bund wall across the project area (Oaky Creek is to the right). Additional test excavation units being dug at 1BS, 2AA and 1AA (from left to right)

7.3 Results

Overall, the team excavated 42 individual 50 cm x 50 cm test excavation units, amounting to 10.5 m^2 . The majority of test excavation units were excavated to a depth of 20 cm, with some test excavation units excavated to 30 cm before basal clay was reached. Deeper test excavation units tended to be located downslope. A summary of test excavation results is included in Table 7.1.

Seven artefacts were retrieved from test excavation units in transects 1, 2, 7 and 9 (see section 7.3.2)

Table 7.1Test excavation results

Transect	Test excavation units	Artefacts	Notes
1 S	1	0	Additional test excavation unit offset by 10 m from Transect 1.
1	10	3	Six initial test excavation units, with three test excavation units added.
2	6	2	Four initial test excavation units with two test excavation units added.
3	4	0	
4	3	0	
5	3	0	
6	3	0	

Table 7.1Test excavation results

Transect	Test excavation units	Artefacts	Notes
7	3	1	
8	3	0	
9	3	1	
10	3	0	
11	1	0	Area of higher disturbance near vehicle access track.

7.3.1 Soils

Soils across the excavation programme consistently comprised a 15–20 cm A-soil horizon of dark brown, moderately compacted silty loam with variable clay content (Plate 7.3; Plate 7.4). Concentration of ironstone modules and angular ironstone fragments varied across the site from negligible to around 50%, with higher concentrations tending to occur down slope. Occasional burnt clay and charcoal were encountered around 15–20 cm depth although there was no evidence that this was cultural (such as a hearth feature) and is more likely to be from vegetation being burnt. The topsoil came down onto a B-soil horizon of undulating orange clay, with a diffuse interface. The clay often contained ironstone nodules and the mixed nature of the clay indicates that the soil has been disturbed and redeposited in places.

An example of a test excavation unit with redeposited soil is Test Pit (TP) 5C (Plate 7.5). The test excavation unit contained a high percentage of angular ironstone gravels that were not well sorted, as well as rocks 8-10 cm in size and pockets of redeposited clay.



Plate 7.3 Soil profile of shallow test excavation unit (TP9B)



Plate 7.4 Soil profile of deeper test excavation unit (TP1A)





7.3.2 Artefacts

Seven stone artefacts were recovered during the test excavation, comprising silcrete and IMT (indurated mudstone/tuff) flakes. The assemblage was dominated by unretouched flakes and flake fragments, distributed unevenly across the project area Each artefact was from a different test excavation unit and all but one were recovered from the top 10 cm of soil. The other artefact was recovered from the second spit of TP9B (10–20 cm). The average artefact density for the site was 1.5 artefacts/m².

One artefact, recovered from TP1E, displayed dorsal retouch along its distal margin. The silcrete flake had been backed at an angle to create a wedge shape (Plate 7.6). Backed artefacts were more common in the late Holocene period (c.2,500BP). They were "multi-functional and multi-purposed components in a range of different tools" (Attenbrow 2010, p.154) and represent investment of time in order to shape and create a specific shape.

Test excavation unit (TP)	Spit	Туре	Material	Colour	Length (mm)	Width (mm)
1E	1 (0-10 cm)	Flake	Silcrete	Light grey	16	11
1B	1 (0-10 cm)	Distal lake	Silcrete	Greyish brown	22	18
1C	1 (0-10 cm)	Flake	Silcrete	Pink	18	7
2AA	1 (0-10 cm)	Flake piece	IMT Li	ght grey with dark inclusions	19	14
2B	1 (0-10 cm)	Flake	IMT	Orange	20	20
7C	1 (0-10 cm)	Distal flake	IMT	Grey	8	11
9B	2 (10-20 cm)	Flake	Silcrete	Pink	6	8

Table 7.2Artefacts recovered









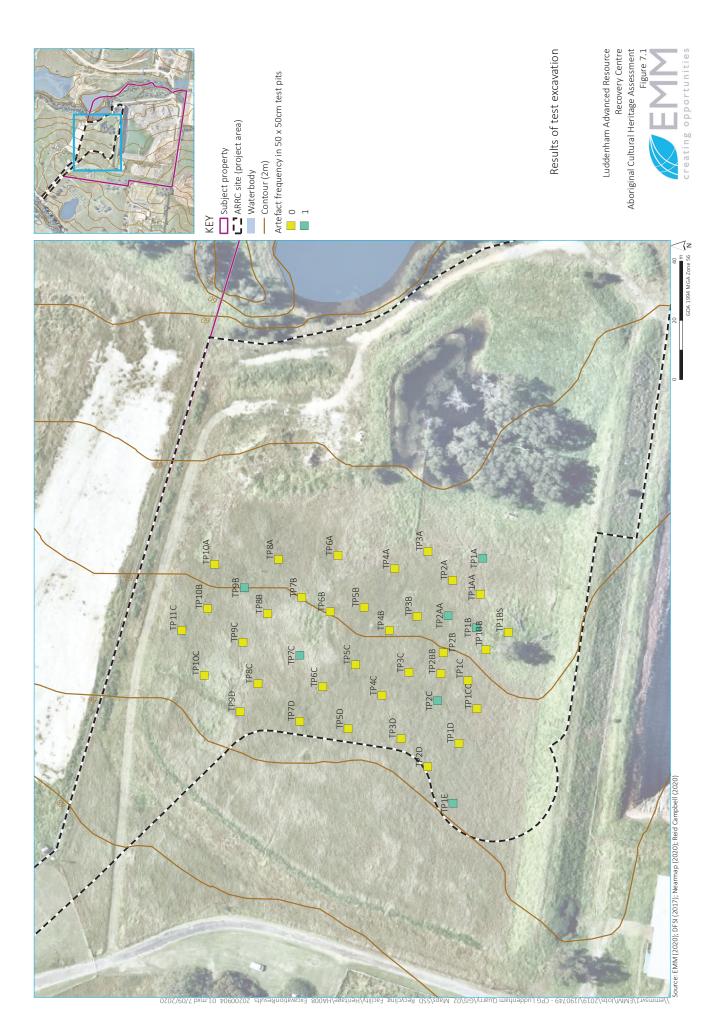
7.4 Discussion

The test excavation program was sufficient to characterise the nature of, and potential for, Aboriginal artefacts in the project area. It determined that there is a low-density artefact scatter across the site, which has been labelled as Luddenham Quarry 1 (LQ1).

The small size of the assemblage makes it difficult to draw conclusions regarding the activities that were carried out in the project area or to build up a comprehensive picture of artefact types. However, some broad generalisations can be made. First, raw materials present in the assemblage are consistent with nearby sites and would have been procured from within the Sydney basin: The IMT from Hawkesbury Nepean gravels and the silcrete from northwestern Sydney. Secondly, none of the flakes contained cortex (the outer layer of rock). A low percentage of cortex is indicative of artefacts produced later in the core reduction process and demonstrates a preference to use what was available rather than expend time and energy in procuring more. Thirdly, the assemblage comprises small flakes. The largest flake was 22 mm long. This indicates that knapping (flake production) was carried out within the project area as knapping produces a large number of small flakes (debitage) which are then left behind as they are too small to be functional as tools.

The test excavation program investigated an area from between 100–200 m from Oaky Creek, a distance that is commonly associated with low densities. Artefact frequencies are likely to be greater within 100 m of Oaky Creek but only within undisturbed areas, such as the riparian corridor. However, the riparian corridor is outside the project area and was therefore not tested.

The sparse and random distribution of artefacts across the project area suggests that the site was occupied occasionally, possibly because there are other nearby creeks with more reliable sources of water, which would have provided more reliable access to associated resources. However, the low-density artefact scatter is also attributable to disturbance, particularly the top 20–30cm of soil, from historic land clearance and subsequent pastoral use. The artefacts therefore represent the traces of past Aboriginal occupation that survive in the landscape.





Aboriginal Site Impact Recording Form

AHIMS Registrar PO Box 1967, Hurstville 2220 NSW April 2012 OEH 2012/0558

1 This form must be completed following impacts to AHIMS sites that are:

- a) a result of test excavation carried out in accordance with the Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW
- b) authorised by an Aboriginal Heritage Impact Permit (AHIP) issued by the Office of Environment and Heritage (OEH)
- c) undertaken for the purpose of complying with Director General's Requirements issued by the Department of Planning and Infrastructure (DP&I) for:
 - State Significant Development (SSD Part 4),
 - State Significant Infrastructure (SSI Part 5.1), or
 - A Major Project (Part 3A now repealed) under the Environmental Planning and Assessment Act 1979 (EP&A Act), or
- d) authorised by a SSD/SSI/Part 3A consent/approval under the EP&A Act.
- 2 Completed forms must be submitted to the AHIMS Registrar (www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm).
- 3 This form is intended to complement (not replace) the AHIMS Site Recording Form. Where there is a need to provide detailed information about the nature of a site, use the AHIMS Site Recording Form.
- 4 This form does not replace the need to submit reports to OEH (as a condition of an AHIP or SSD/SSI/Part 3A consent/approval) This form must be submitted in addition to any reports.

AHIMS site ID:

Site impact authorisation (select one)	Reference numbers, dates						
Archaeological Code (The impacts to this site were the result of test excavation carried out in accordance with	Date OEH was notified (under requirement 15c of the Code): 06/08/2020						
the Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW.)	OEH Regional office notified: Sydney Metro						
AHIP (The impacts to this site were authorised by an	AHIP number:						
AHIP.)	Date issued/signed:						
	AHIMS permit ID/number:						
SSD/SSI/Part 3A application (The impacts to this site were undertaken for the purposes of complying with	Project number:						
Director General's Requirements issued by the DP&I	Date Director General's Requirements issued:						
SSD/SSI/Part 3A approved project (The impacts to this	or						
site were authorised by a consent/approval under Parts 4/5.1/3A of the EP&A Act.)	Date of project approval:						
Site status following impacts:							
Not a site (The investigations concluded that this is not a	Not a site (The investigations concluded that this is not a site.)						
Valid site (The investigations confirmed that this is an Aboriginal site.)							
Partially destroyed (The site was partially destroyed follo	wing authorised impacts; a portion of the site remains in situ.)						
Destroyed (The site was completely destroyed following authorised impacts.)							
Geographic location							
Site name: Luddenham Quarry 1 (LQ1)							
Easting: 288978 Northing: 62	49565 Coordinates must be in GDA (MGA)						
Map sheet:							
Zone: 56 Location method:	Hand Held/Non Differential GPS						

Primary recorder (The person responsible for the completion and submission of this form)

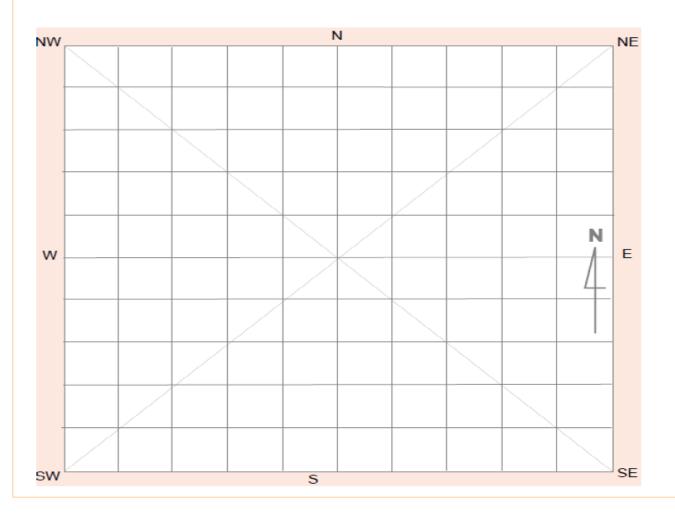
Title	•	Surname		First name
Mr		Desic		Ryan
Org	anisati	on: EMM Consulting		
Add	ress:	20 Chandos Street St Leonards		
Pho	ne:	411329712 E-mail: rdesic@emmco	nsultii	ng.com.au
Date	recor	ded: 07/10/2020 Fax:		
Oper	n/close	mation ed site: Open		
	ures: 1. 2. 3. 4. 5. 6. 7. 8. 9. 10.	Aboriginal ceremony and dreaming Aboriginal resource and gathering Art Artefact Burial Ceremonial ring Conflict Earth mound Fish trap Grinding groove	 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 	Habitation structure Hearth Non-human bone and organic material Ochre quarry Potential archaeological deposit Stone quarry Shell Stone arrangement Modified tree Water hole

Site condition

Written description of the condition of the AHIMS site (including relevant features) following the authorised impact of the site

Refer to attached information.

Site map Clearly demarcate the original AHIMS site boundary, show the boundaries of impacted areas and the areas where the site remains in situ. Display map coordinates.



Methodology and results Summary of the methodology and results of the activity or works undertaken through the authorised impacts, as relevant to the AHIMS site

Refer to attached documentation

Summary of any management recommendations for the AHIMS site

Management recommendation was for unmitigated impact

Post-investigation significance

Discuss if the scientific/archaeological or cultural significance of the site has changed in light of the results of the investigations or works conducted at the site.

Archaeological significance: Artefacts within the project area are present in low densities (<2/m2). The project area comprises

disturbed contexts including historical re-deposition of soil or truncated Blacktown soils. Archaeological material that is not in situ is of low research potential and will not yield novel information regarding past Aboriginal occupation of the area.

Test excavation identified a sparse and uneven artefact distribution. The sample size (seven artefacts) is too small to provide informative data regarding artefact types and materials that would further contribute to our archaeological understanding of the Luddenham area. Adjacent studies, investigations and salvage excavation for the Western Sydney Airport has yielded much more diverse and complex archaeological information about the local area.

Cultural significance:

This section will be updated after RAP review of the draft ACHA document. However, consultation to date has sought to determine whether any socio-cultural or historic heritage value relates specifically to the project area more broadly regardless of archaeological evidence. The general consensus was that, prior to the survey, RAPs did not know of the location of specific sites within the project area but were told by their Elders that such site types may exist within the landscape. RAPs acknowledged that this was partly due to the physical and cultural dislocation

Additional comments

7 Test excavation

7.1 Overview

A test excavation program was undertaken over three days from 25 to 27 August 2020. The program involved four archaeologists and up to four RAP representatives on each day.

The purpose of the test excavation was to build on the information obtained through desktop analysis, particularly the results of archaeological assessments at the adjacent Badgery's Creek airport site, which suggested that the project area had potential for sub-surface Aboriginal objects. Community consultation with RAPs indicated their strong desire for a test excavation programme in order to determine the potential for archaeological material and confirm the level of disturbance. Therefore, it was determined that test excavation be undertaken in order to characterise the archaeological deposit and contribute to updated significance and impact assessments, and in developing appropriate management measures.

7.2 Test excavation methods

The test excavation involved the following method:

- A series of linear transects were set out across area of moderate archaeological potential (Figure 7.1).
- Areas observed in the field to have substantial existing disturbance were avoided.
- 50 cm x 50 cm test excavation units were spaced at 20 m intervals along each transect.
- The first test excavation unit was dug manually with hand tools in 5 cm spits to identify the nature of the soils and to identify if a stratigraphic sequence existed. The remaining pits were dug in 10 cm spits.
- Each pit was excavated until basal clay was reached, or to 10 cm below the artefact bearing level identified at each transect.
- All excavated soil was sieved on-site using a wet sieving technique. The soil was sieved through a mix of 3 mm and 5 mm aperture mesh (Plate 7.1).
- All test excavation units were backfilled by the excavation team after each pit was recorded.
- Each test excavation unit was photographed, and soil profile/section drawing were completed.



Plate 7.1 Wet sieving on the northern edge of the project area. View south

7.2.1 Test excavation unit layout

Eleven linear transects, oriented north—south, were placed across the area of moderate potential within the project area. The test excavation units were spaced 20 m apart and each alternate transect was offset by 10 m (Figure 7.1). After 36 test excavation units had been dug across the project area, six test excavation units were added to further investigate localised artefact occurrences. The additional test excavation units were offset from test excavation units in transects 1 and 2 from where artefacts had been recovered. This concentrated test excavation to an area down slope closest to Oaky Creek and where soil deposit was highest, and towards the southern boundary of the project area where artefacts had been identified (Plate 7.2).



Plate 7.2 View north from the quarry bund wall across the project area (Oaky Creek is to the right). Additional test excavation units being dug at 1BS, 2AA and 1AA (from left to right)

7.3 Results

Overall, the team excavated 42 individual 50 cm x 50 cm test excavation units, amounting to 10.5 m^2 . The majority of test excavation units were excavated to a depth of 20 cm, with some test excavation units excavated to 30 cm before basal clay was reached. Deeper test excavation units tended to be located downslope. A summary of test excavation results is included in Table 7.1.

Seven artefacts were retrieved from test excavation units in transects 1, 2, 7 and 9 (see section 7.3.2)

Table 7.1Test excavation results

Transect	Test excavation units	Artefacts	Notes
1 S	1	0	Additional test excavation unit offset by 10 m from Transect 1.
1	10	3	Six initial test excavation units, with three test excavation units added.
2	6	2	Four initial test excavation units with two test excavation units added.
3	4	0	
4	3	0	
5	3	0	
6	3	0	

Table 7.1Test excavation results

Transect	Test excavation units	Artefacts	Notes
7	3	1	
8	3	0	
9	3	1	
10	3	0	
11	1	0	Area of higher disturbance near vehicle access track.

7.3.1 Soils

Soils across the excavation programme consistently comprised a 15–20 cm A-soil horizon of dark brown, moderately compacted silty loam with variable clay content (Plate 7.3; Plate 7.4). Concentration of ironstone modules and angular ironstone fragments varied across the site from negligible to around 50%, with higher concentrations tending to occur down slope. Occasional burnt clay and charcoal were encountered around 15–20 cm depth although there was no evidence that this was cultural (such as a hearth feature) and is more likely to be from vegetation being burnt. The topsoil came down onto a B-soil horizon of undulating orange clay, with a diffuse interface. The clay often contained ironstone nodules and the mixed nature of the clay indicates that the soil has been disturbed and redeposited in places.

An example of a test excavation unit with redeposited soil is Test Pit (TP) 5C (Plate 7.5). The test excavation unit contained a high percentage of angular ironstone gravels that were not well sorted, as well as rocks 8-10 cm in size and pockets of redeposited clay.



Plate 7.3 Soil profile of shallow test excavation unit (TP9B)



Plate 7.4 Soil profile of deeper test excavation unit (TP1A)





7.3.2 Artefacts

Seven stone artefacts were recovered during the test excavation, comprising silcrete and IMT (indurated mudstone/tuff) flakes. The assemblage was dominated by unretouched flakes and flake fragments, distributed unevenly across the project area Each artefact was from a different test excavation unit and all but one were recovered from the top 10 cm of soil. The other artefact was recovered from the second spit of TP9B (10–20 cm). The average artefact density for the site was 1.5 artefacts/m².

One artefact, recovered from TP1E, displayed dorsal retouch along its distal margin. The silcrete flake had been backed at an angle to create a wedge shape (Plate 7.6). Backed artefacts were more common in the late Holocene period (c.2,500BP). They were "multi-functional and multi-purposed components in a range of different tools" (Attenbrow 2010, p.154) and represent investment of time in order to shape and create a specific shape.

Test excavation unit (TP)	Spit	Туре	Material	Colour	Length (mm)	Width (mm)
1E	1 (0-10 cm)	Flake	Silcrete	Light grey	16	11
1B	1 (0-10 cm)	Distal lake	Silcrete	Greyish brown	22	18
1C	1 (0-10 cm)	Flake	Silcrete	Pink	18	7
2AA	1 (0-10 cm)	Flake piece	IMT Li	ght grey with dark inclusions	19	14
2B	1 (0-10 cm)	Flake	IMT	Orange	20	20
7C	1 (0-10 cm)	Distal flake	IMT	Grey	8	11
9B	2 (10-20 cm)	Flake	Silcrete	Pink	6	8

Table 7.2Artefacts recovered









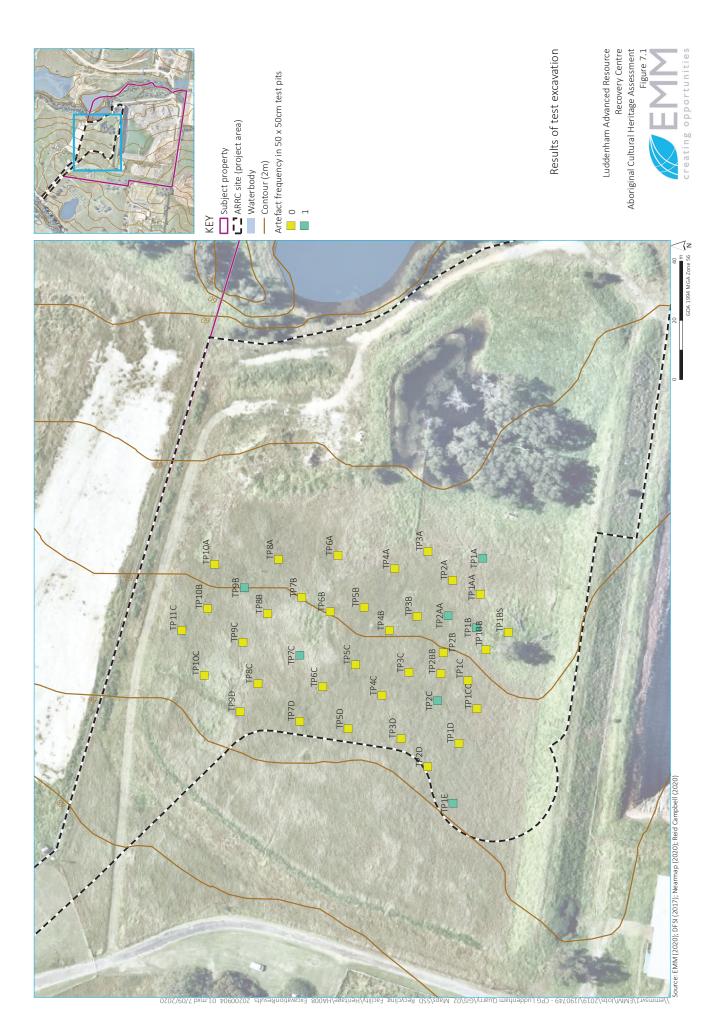
7.4 Discussion

The test excavation program was sufficient to characterise the nature of, and potential for, Aboriginal artefacts in the project area. It determined that there is a low-density artefact scatter across the site, which has been labelled as Luddenham Quarry 1 (LQ1).

The small size of the assemblage makes it difficult to draw conclusions regarding the activities that were carried out in the project area or to build up a comprehensive picture of artefact types. However, some broad generalisations can be made. First, raw materials present in the assemblage are consistent with nearby sites and would have been procured from within the Sydney basin: The IMT from Hawkesbury Nepean gravels and the silcrete from northwestern Sydney. Secondly, none of the flakes contained cortex (the outer layer of rock). A low percentage of cortex is indicative of artefacts produced later in the core reduction process and demonstrates a preference to use what was available rather than expend time and energy in procuring more. Thirdly, the assemblage comprises small flakes. The largest flake was 22 mm long. This indicates that knapping (flake production) was carried out within the project area as knapping produces a large number of small flakes (debitage) which are then left behind as they are too small to be functional as tools.

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The sparse and random distribution of artefacts across the project area suggests that the site was occupied occasionally, possibly because there are other nearby creeks with more reliable sources of water, which would have provided more reliable access to associated resources. However, the low-density artefact scatter is also attributable to disturbance, particularly the top 20–30cm of soil, from historic land clearance and subsequent pastoral use. The artefacts therefore represent the traces of past Aboriginal occupation that survive in the landscape.



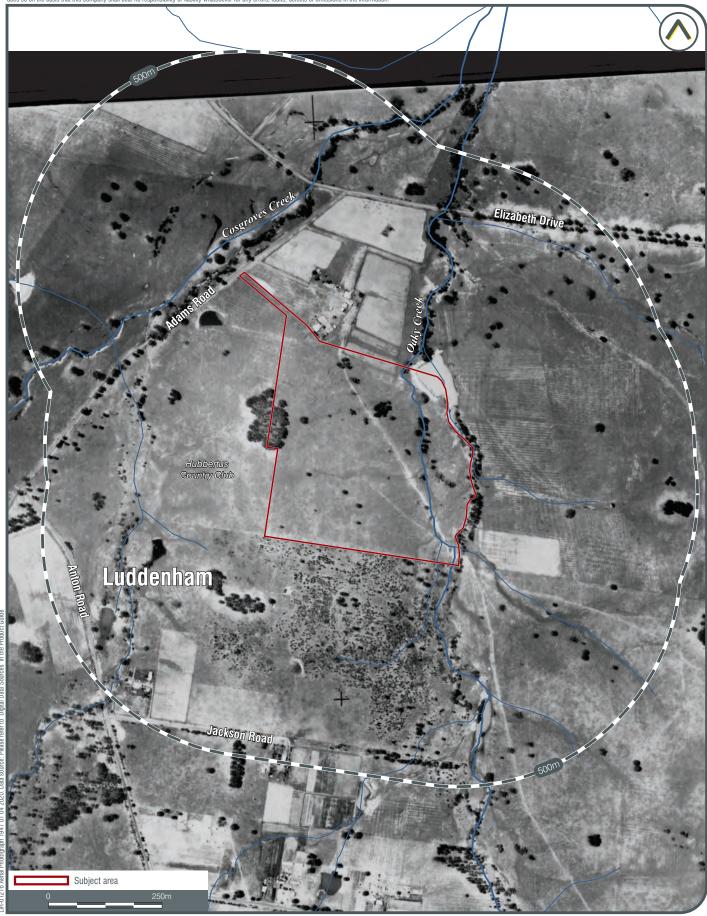
Appendix B

Historic aerial photographs



ATTACHMENT B

Historical Imagery



HISTORIC AERIAL PHOTOGRAPH - 1947



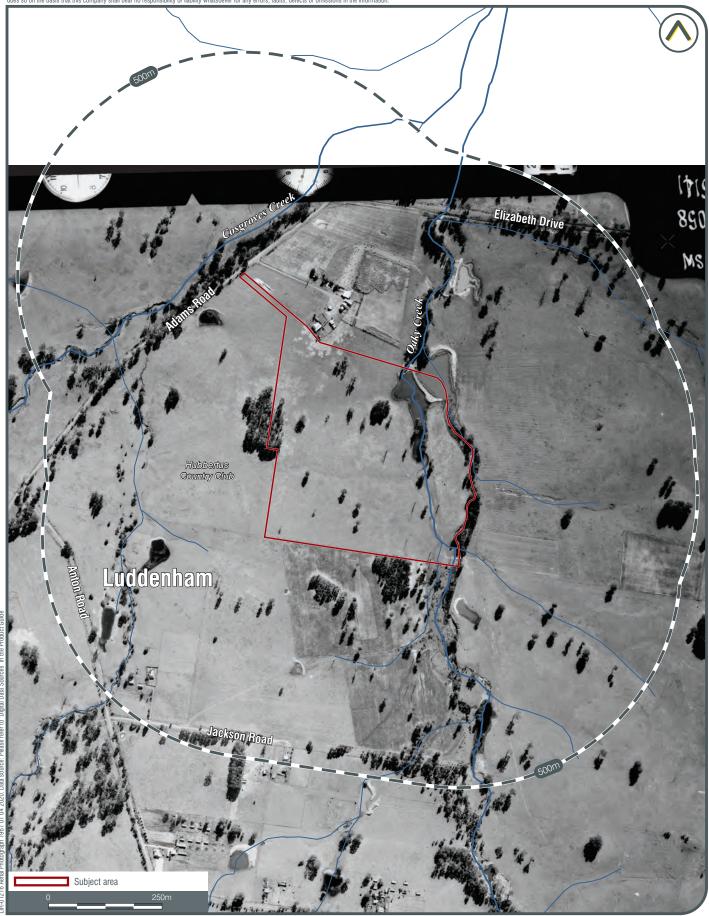




HISTORIC AERIAL PHOTOGRAPH - 1955



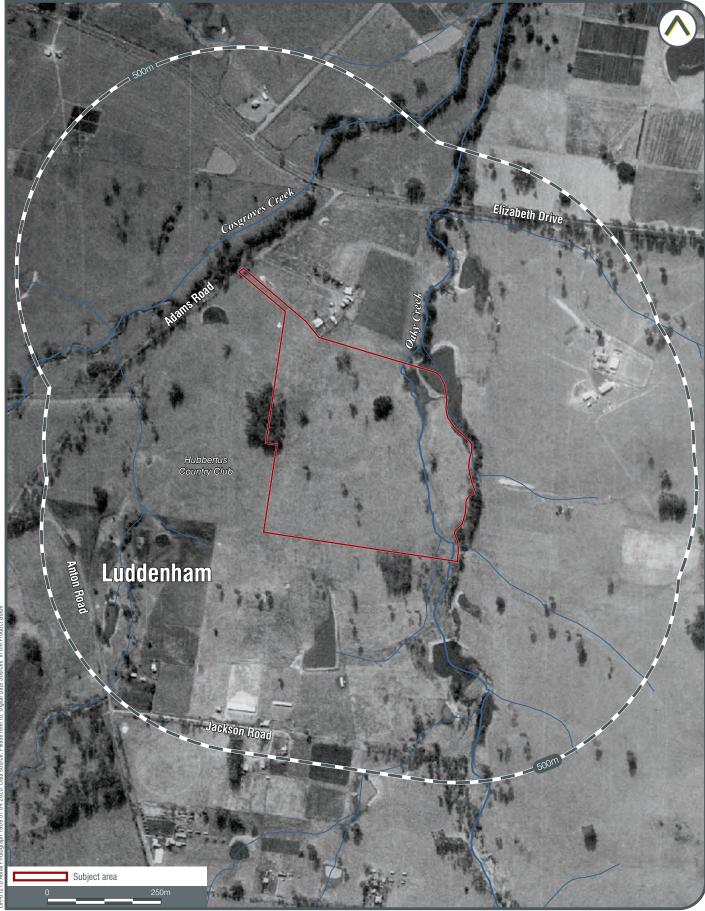




HISTORIC AERIAL PHOTOGRAPH - 1961



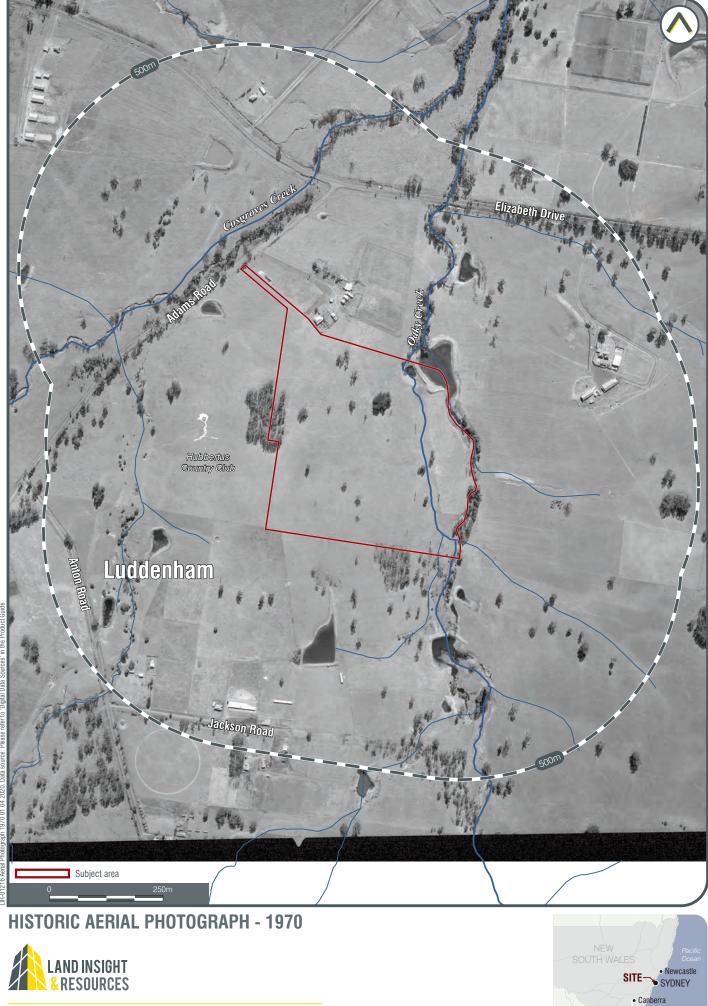


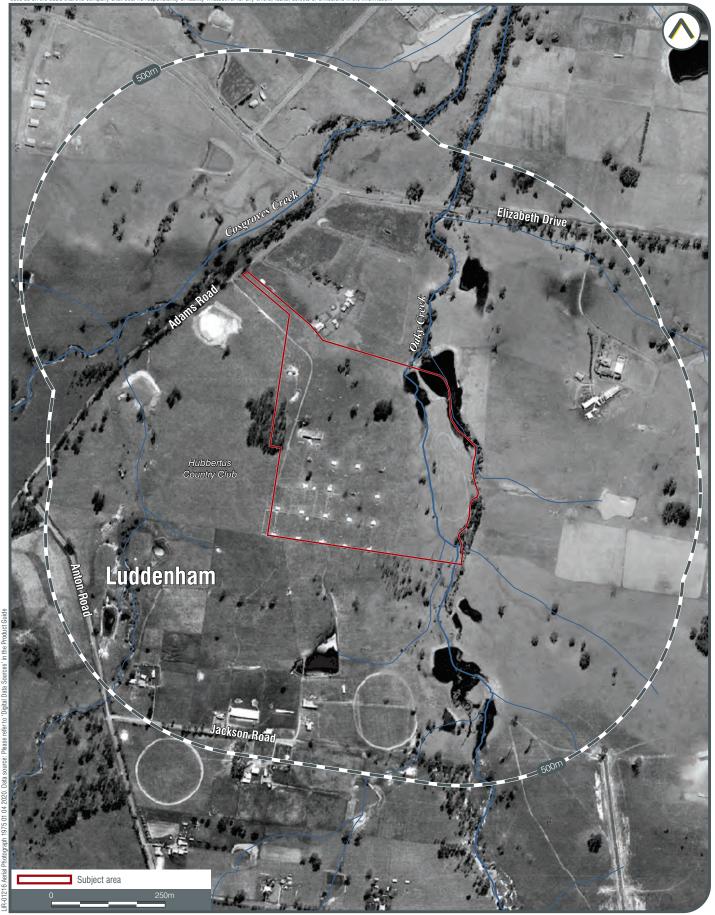


HISTORIC AERIAL PHOTOGRAPH - 1969









HISTORIC AERIAL PHOTOGRAPH - 1975







HISTORIC AERIAL PHOTOGRAPH - 1984



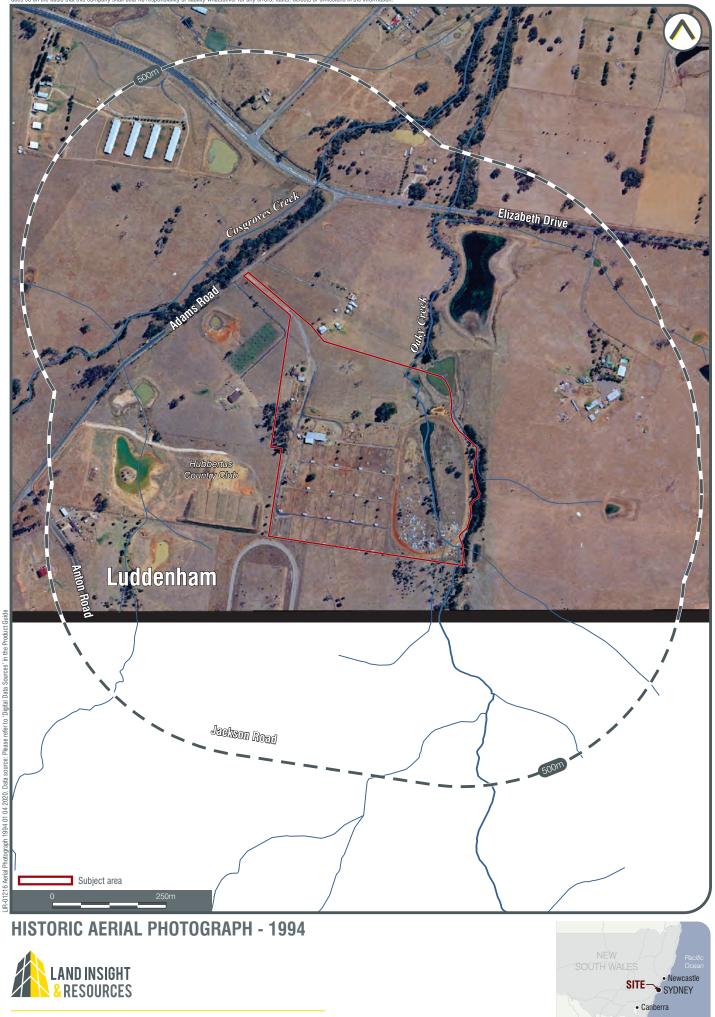


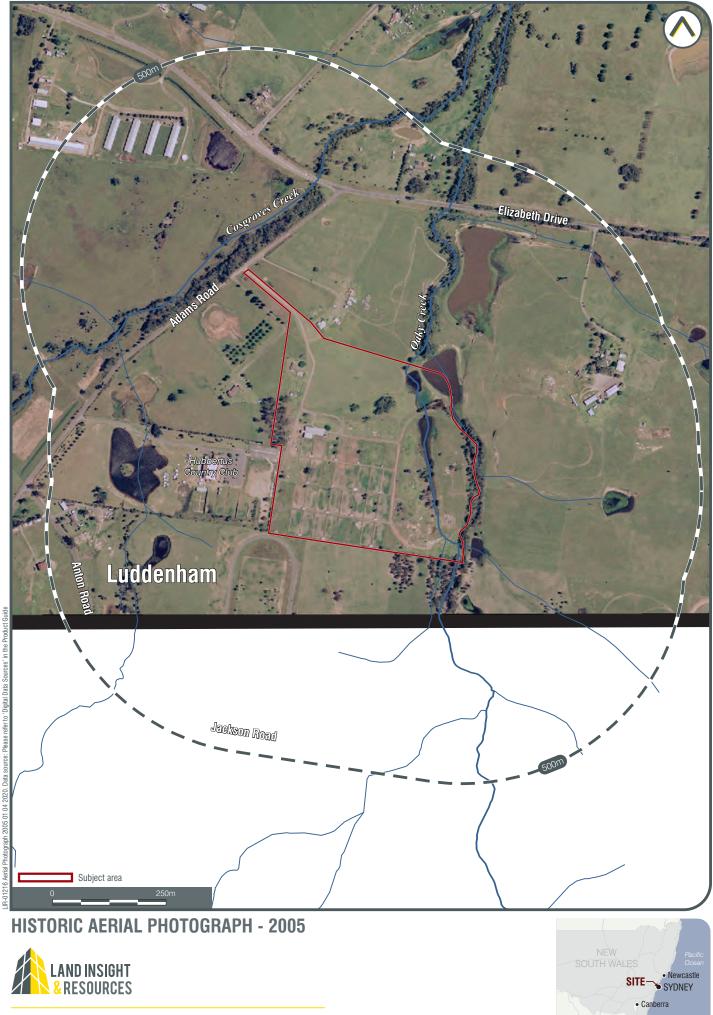


HISTORIC AERIAL PHOTOGRAPH - 1991











HISTORIC AERIAL PHOTOGRAPH - 2009







HISTORIC AERIAL PHOTOGRAPH - 2011







HISTORIC AERIAL PHOTOGRAPH - 2014







HISTORIC AERIAL PHOTOGRAPH - 2017



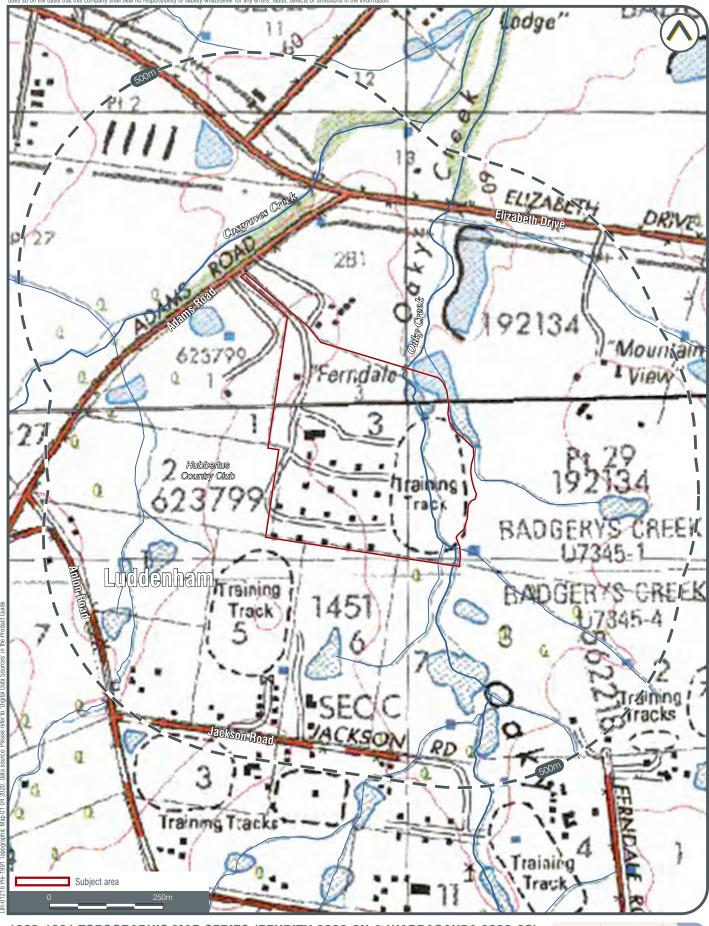




HISTORIC AERIAL PHOTOGRAPH - 2020







1969-1991 TOPOGRAPHIC MAP SERIES (PENRITH 9030-3N & WARRAGANBA 9030-3S)





Appendix C Aboriginal consultation

C.1 Consultation log

ABORIGINAL CONSU	JLTATION RECORD							
Project Name: Ludd	enham Quarry SSD			Project #: XXX				
DECCW 2010*	ORGANISATION	CONTACT TYPE	TRACKING #	SUBJECT	SENT DATE	RESPONSE DUE	RESPONSE	COMMENT/S
		CONTACT TITE	(if applicable)	3055221	JENT DATE	RESPONSE DOE	DATE	
4.1	Stage 1: Notification of project proposal and registration of interest							
4.1.2 (a)	DPIE BCD (Sydney)	Email		Identification of Aboriginal parties	24/Apr/20	8/May/20	30/Apr/20	
4.1.2 (b) 4.1.2 (b)	Gandangara Local Aboriginal Lands Council	Email		Identification of Aboriginal parties	24/Apr/20	8/May/20	24/Apr/20	Would like to be consulted
4.1.2 (b) 4.1.2 (c)	Deerubin Local Aboriginal Lands Council The Office of the Registrar, Aboriginal Land Rights Act 1983	Email Email		Identification of Aboriginal parties Identification of Aboriginal parties	24/Apr/20 24/Apr/20	8/May/20 8/May/20		
4.1.2 (d)	National Native Title Tribunal	Email		Identification of Aboriginal parties	24/Apr/20	8/May/20	24/Apr/20	
4.1.2 (e)	Native Title Services NTSCORP	Email		Identification of Aboriginal parties	24/Apr/20	8/May/20	24770720	
4.1.2 (f)	Liverpool City Council	Email		Identification of Aboriginal parties	24/Apr/20	8/May/20	25/May/20	
4.1.2 (g)	Greater Sydney Local Land Service (former CMA)	Email		Identification of Aboriginal parties	24/Apr/20	8/May/20		
4.1.3	Newspaper Notice - Request for registrations							
4.1.3	Western Weekender Local Newspaper	Advertisement		Identification of Aboriginal parties	8/May/20	22/May/20		Advertisement appeared on 8 May 2020
4.1.3/4.2	Aboriginal Group Notifications	1 1			1	1	1	
4.1.3	Darug Aboriginal Cultural Heritage Assessments	Express Post	60454716471098	Request for registrations	8/May/20	22/May/20		
4.1.3	Cubbitch Barta Badu	Express Post	60454716462096	Request for registrations	8/May/20	22/May/20	12/May/20	Registered
4.1.3	Goobah Developments	Express Post	60454716463093	Request for registrations	8/May/20	22/May/20 22/May/20		
4.1.3	Wullung	Express Post Express Post	60454716465097	Request for registrations Request for registrations	8/May/20 8/May/20	22/May/20 22/May/20		
4.1.3	Minnamunnung	Express Post	60454716466094	Request for registrations	8/May/20	22/May/20 22/May/20		
4.1.3	Tocomwall	Express Post	60454716467091	Request for registrations	8/May/20	22/May/20		
4.1.3	Mura Indigenous Corporation	Express Post	60454716468098	Request for registrations	8/May/20	22/May/20		
4.1.3	Gandangara Local Aboriginal Land Council	Email		Request for registrations	8/May/20	22/May/20		Registered
4.1.3	Tharawal Local Aboriginal Land Council	Email		Request for registrations	8/May/20	22/May/20	10/May/20	do not wish to register
4.1.3	Darug Custodian Aboriginal Corporation	Email		Request for registrations	8/May/20	22/May/20	25/May/20	
4.1.3	Darug Tribal Aboriginal Corporation	Email		Request for registrations	8/May/20	22/May/20	8/May/20	Registered
4.1.3	Darug Land Observations	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Darug Aboriginal Land Care	Email Email		Request for registrations	8/May/20	22/May/20	22/14/20	Duristicand
4.1.3	A1 Indigenous Services Kamilaroi Yankunjatjara Working Group	Email		Request for registrations Request for registrations	8/May/20 8/May/20	22/May/20 22/May/20	22/May/20 8/May/20	Registered
4.1.3	Warragil Cultural Services	Email		Request for registrations	8/May/20	22/May/20 22/May/20	0/1VId ¥/20	vesizielen
4.1.3	Wurrumay Consultancy	Email		Request for registrations	8/May/20	22/May/20 22/May/20	21/May/20	Registered
4.1.3	Amanda Hickey Cultural Services	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Dhinawan Heritage and Culture Pty Ltd	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Gunyuu	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Walbunja	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Yerramurra	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Nundagurri	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Murrumbul	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Jerringong Dominum CHTS	Email Email		Request for registrations	8/May/20	22/May/20		
4.1.3 4.1.3	Pemulwuy CHTS Billinga	Email		Request for registrations	8/May/20 8/May/20	22/May/20		undeliverable
4.1.3	Munyunga	Email		Request for registrations Request for registrations	8/May/20 8/May/20	22/May/20 22/May/20		
4.1.3	Wingikara	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Walgalu	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Thauaira	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Dharug	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Gulaga	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Biamanga	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Callendulla	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Murramarang Butucarbin Aboriginal Corporation	Email Email		Request for registrations	8/May/20	22/May/20	22/M/20	Paristarad
4.1.3 4.1.3	Butucarbin Aboriginal Corporation Didge Ngunawal Clan	Email		Request for registrations	8/May/20 8/May/20	22/May/20 22/May/20	22/May/20 8/May/20	
4.1.3	Ginninderra Aboriginal Corporation	Email		Request for registrations Request for registrations	8/May/20 8/May/20	22/May/20 22/May/20	3/1VId ¥/ 20	
4.1.3	Garrara Aboriginal Corporation	Email		Request for registrations	8/May/20	22/May/20 22/May/20		
4.1.3	Wailwan Aboriginal Group	Email		Request for registrations	8/May/20	22/May/20	8/May/20	Registered
4.1.3	Guntawang Aboriginal Resources Incorporated	Email		Request for registrations	8/May/20	22/May/20	22/May/20	
4.1.3	Barking Owl Aboriginal Corporation	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Yulay Cultural Services	Email		Request for registrations	8/May/20	22/May/20	21/May/20	Registered
4.1.3	Theorga Nura	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Barraby Cultural Services	Email		Request for registrations	8/May/20	22/May/20	18/May/20	
4.1.3	Yurrandaali Cultural Services	Email Email		Request for registrations	8/May/20	22/May/20	18/May/20	registered
4.1.3	Darug Boorooberongal Elders Aboriginal Corporation B.H. Heritage Consultants	Email		Request for registrations Request for registrations	8/May/20 8/May/20	22/May/20 22/May/20		
4.1.3	Dhinawan Heritage and Culture Pty Ltd	Email		Request for registrations Request for registrations	8/May/20 8/May/20	22/May/20 22/May/20		
4.1.3	Ngambaa Cultural Connections	Email		Request for registrations	8/May/20	22/May/20 22/May/20		
4.1.3	Goodradigbee Cultural and Heritage Aboriginal Corporation	Email		Request for registrations	8/May/20	22/May/20	8/May/20	Registered
4.1.3	Mura Indigenous Corporation	Email		Request for registrations	8/May/20	22/May/20		undeliverable
4.1.3	Aragung Aboriginal Cultural Heritage Site Assessments	Email		Request for registrations	8/May/20	22/May/20		
4.1.3	Waawaar Awaa	Email		Request for registrations	8/May/20	22/May/20	8/May/20	Registered
4.1.3	Clive Freeman	Email		Request for registrations	8/May/20	22/May/20	- 4	
4.1.3	Gulamaay Cultural Consultants (GCC)	Email		Request for registrations	8/May/20	22/May/20	9/May/20	Registered
4.1.6	Notification of registered parties	Empil		Submit record of registerations	25/04/20	N/A	N/4	
4.1.6	DPIE BCD (Sydney) Gandangara Local Aboriginal Lands Council	Email Email		Submit record of registrations Submit record of registrations	25/May/20 25/May/20	N/A N/A	N/A N/A	
4.1.0	Stage 2/3: Presentation of information about the proposed project and gathering inform	nation about cultura	l significance	Submit record or registrations	2.3/1VIdy/20	IN/A	IV/A	
	Gandangara Local Aboriginal Lands Council (Darren Duncan)	email		Project information and methodology	22/May/20	19/Jun/20		
	Gandangara Local Aboriginal Lands Council (Ruth Sheridan)	email		Project information and methodology	22/May/20	19/Jun/20		

ABORIGINAL CONSU	LTATION RECORD							
Project Name: Ludde	enham Quarry SSD			Project #: XXX				
DECCW 2010*	ORGANISATION	CONTACT TYPE	TRACKING #	SUBJECT	SENT DATE	RESPONSE DUE	RESPONSE	COMMENT/S
			(if applicable)				DATE	
	Didge Ngunawal Clan	email		Project information and methodology	22/May/20	19/Jun/20	22/May/20	Happy with all endorsements and don't need to include anything further
4.2.1 / 4.3.1 / 4.3.3	Goodradigbee	email		Project information and methodology	22/May/20	19/Jun/20		Happy with the methodology
4.2.1 / 4.3.1 / 4.3.3	Kamilaroi-Yankuntjatjara Working Group	email		Project information and methodology	22/May/20	19/Jun/20	25/May/20	This area was highly significant to the old Aboriginal People of the past, it was a hunting area & camping along the small waterways that cross the land. There could be burial grounds & there are areas that need to be looked at. Recommends a walkover be done.
	Wailwan Aboriginal Group	email		Project information and methodology	22/May/20	19/Jun/20	16/Jul/20	Email (with a different project referenced in the subject line but) referring to the site inspection at Luddenham and his support for test excavation. Confirmed with a phone call that he was supporting test excavation
	Waawaar Awaaa Aboriginal Corporation	email		Project information and methodology	22/May/20	19/Jun/20	15/Jun/20	Supports the methodology.
	Dharug Ngurra Aboriginal Corporation	email		Project information and methodology	22/May/20	19/Jun/20		
4.2.1 / 4.3.1 / 4.3.3	Galamaay	email		Project information and methodology	22/May/20	19/Jun/20		
4.2.1/4.3.1/4.3.3		letter	02 07053 08001 000	Project information and methodology	22/May/20	19/Jun/20		
4.2.1 / 4.3.1 / 4.3.3	Barraby Cultural Services	email email		Project information and methodology Project information and methodology	22/May/20	19/Jun/20		Supports the methodology. Would like to see test excavation. Believes it would be worthwhile given the findings at the Badgery's Creek airport site
4.2.1 / 4.3.1 / 4.3.3		email		Project information and methodology Project information and methodology	22/May/20 22/May/20	19/Jun/20 19/Jun/20	25/0652020	Would like to see test excavation. Beneves it would be worthwhile given the midings at the Badgery's creek an port site
4.2.1/4.3.1/4.3.3		email		Project information and methodology	22/May/20	19/Jun/20		
	Butucarbin Aboriginal Corporation	email		Project information and methodology	25/May/20	19/Jun/20		Late registration
	A1 Indigenous Services	email		Project information and methodology	25/May/20	19/Jun/20	28/May/20	Late registration. Supports the methodology
4.2.1 / 4.3.1 / 4.3.3	Guntawang Aboriginal Resources Incorporated	email		Project information and methodology	25/May/20	19/Jun/20	9/Jun/20	Late registration. Supports the methodology
4.2.1 / 4.3.1 / 4.3.3	Darug Custodian Aboriginal Corporation	email		Project information and methodology	25/May/20	19/Jun/20		Late registration
4.2.1 / 4.3.1 / 4.3.3	Deerubin Local Aboriginal Lands Council	email		Project information and methodology	1/Jun/20	19/Jun/20		Late registration
4.2.1 / 4.3.1 / 4.3.3	Aboriginal Consultative Committee	email		Project information and methodology	1/Jun/20	19/Jun/20	1/Jun/20	Late registration. If any Aboriginal Objects are found on site during the development of this project, ACC members are to be notified of the findings and a meeting called to discuss salvage/reburial/etc. Recommends a meeting to discuss cultural values
	Site inspection	1						
	Gandangara Local Aboriginal Lands Council (Darren Duncan)	email			22/Jun/20	29/Jun/20	25/Jun/20	25/Jun/20 Follow up email sent to Duncan and Ruth. Duncan called back and sent through paperwork
	Darug Custodian Aboriginal Corporation	email			22/Jun/20	29/Jun/20	22/Jun/20	sent through paperwork. PC emailed 26/Jun/20 to request updated insurances
	Goodradigbee	email			22/Jun/20	29/Jun/20		PC emailed 26/Jun/20 to request paperwork and insurances
	Wailwan Aboriginal Group	email			22/Jun/20	29/Jun/20	23/Jun/20	paperwork and insurances received
	Aboriginal Consultative Committee	email			22/Jun/20	29/Jun/20		PC phoned and left a message on 22 June 2020
	Kamilaroi-Yankuntjatjara Working Group	email			22/Jun/20	29/Jun/20	25/Jun/20	PC emailed 26/Jun/20 to request paperwork
	Cubbitch Barta	email			22/Jun/20	29/Jun/20	22/Jun/20	PC phoned to follow up - Daniel will bring forms to site visit
	Dharug Ngurra Aboriginal Corporation (Darug Tribal)	email			25/Jun/20	29/Jun/20		PC phoned to follow up 26/Jun/20
	Yurrandaali	email			22/Jun/20	29/Jun/20	27/Jun/20	will send forms over the weekend
	Stage 3 Notification of test excavation and methodology							
4.3		1	1		47/11/20	24/11/20	1	
	Gandangara Local Aboriginal Lands Council (Darren Duncan) Gandangara Local Aboriginal Lands Council (Ruth Sheridan)	email email			17/Jul/20 17/Jul/20	31/Jul/20 31/Jul/20		
	Didge Ngunawal Clan	email			17/Jul/20 17/Jul/20			
	Goodradigbee	email			17/Jul/20	31/Jul/20 31/Jul/20		
	Kamilaroi-Yankuntjatjara Working Group	email			17/Jul/20	31/Jul/20	27/Jul/20	Supports test excavation
	Wailwan Aboriginal Group	email			17/Jul/20	31/Jul/20	16/Jul/20	Email (with a different project referenced in the subject line but) referring to the site inspection at Luddenham and his support for test excavation. Confirmed with a phone call (17 July 20) that he was sreferring to Luddenham Quarry ARRC
	Waawaar Awaaa Aboriginal Corporation	email			17/Jul/20	31/Jul/20	17/Jul/20	Supports test excavation
	Dharug Ngurra Aboriginal Corporation	email			17/Jul/20	31/Jul/20	25/Aug/20	Phone conversation with John in which he emphasised the importance of test excavation for adding to our knowledge of Aboriginal history in order to better tell their story. It's important to take these opportunities before the land is developed and information is lost.
	Galamaay	email			17/Jul/20	31/Jul/20		
	Cubbitch Barta	email			17/Jul/20	31/Jul/20		
	Barraby Cultural Services	email			17/Jul/20	31/Jul/20	17/Jul/20	Supports test excavation
	Yurrandaali	email			17/Jul/20	31/Jul/20	17/Jul/20	Supports test excavation
	Yulay Wurrumay	email			17/Jul/20	31/Jul/20	17/Jul/20	Supports test excavation
		email			17/Jul/20	31/Jul/20	1	
	Butucarbin Aboriginal Corporation A1 Indigenous Services	email			17/Jul/20 17/Jul/20	31/Jul/20 31/Jul/20		
	Guntawang Aboriginal Resources Incorporated	email			17/Jul/20 17/Jul/20	31/Jul/20 31/Jul/20		
	Darug Custodian Aboriginal Corporation	email			17/Jul/20	31/Jul/20		
	Deerubin Local Aboriginal Lands Council	email			17/Jul/20	31/Jul/20		
	Aboriginal Consultative Committee	email			17/Jul/20	31/Jul/20		
				L				
15	CoP Requirement 15: Pre-conditions to carrying out test excavation	1			5 (1) (2)			
Req 15c 4.4	DPIE BCD Stage 4: Review of draft cultural heritage assessment report (prior to test excavation)		I	Notification of test excavation	5/Aug/20	N/A	N/A	14 days prior to undertaking test excavation
4.4.2	Gandangara Local Aboriginal Lands Council (Darren Duncan)	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Gandangara Local Aboriginal Lands Council (Barten Buncan) Gandangara Local Aboriginal Lands Council (Ruth Sheridan)	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20 14/Aug/20		
4.4.2	Didge Ngunawal Clan	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Goodradigbee	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Kamilaroi-Yankuntjatjara Working Group	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Wailwan Aboriginal Group	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Waawaar Awaaa Aboriginal Corporation	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Dharug Ngurra Aboriginal Corporation	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Galamaay	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Cubbitch Barta	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Barraby Cultural Services	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20	21/Jul/20	Supports the ACHA and the proposed test excavation
4.4.2	Yurrandaali	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Yulay	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		

ABORIGINAL CONSU	LTATION RECORD							
Project Name: Ludde	enham Quarry SSD			Project #: XXX				
DECCW 2010*	ORGANISATION	CONTACT TYPE	TRACKING #	SUBJECT	SENT DATE	RESPONSE DUE	RESPONSE	COMMENT/S
			(if applicable)			44/4 /20	DATE	
4.4.2 4.4.2	Wurrumay Butucarbin Aboriginal Corporation	email		Cultural information and ACHA review Cultural information and ACHA review	17/Jul/20 17/Jul/20	14/Aug/20 14/Aug/20		
4.4.2	A1 Indigenous Services	email email		Cultural information and ACHA review	17/Jul/20 17/Jul/20	14/Aug/20 14/Aug/20	30/Jul/20	Supports the draft ACHA
4.4.2	Guntawang Aboriginal Resources Incorporated	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20 14/Aug/20	29/Jul/20	Would like to be considered for fieldwork
4.4.2	Darug Custodian Aboriginal Corporation	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20	23/30/20	wood like to be considered for heldwork
4.4.2	Deerubin Local Aboriginal Lands Council	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	Aboriginal Consultative Committee	email		Cultural information and ACHA review	17/Jul/20	14/Aug/20		
4.4.2	XXX			Cultural information and ACHA review	17/Jul/20	14/Aug/20		
	Test excavation							
	Gandangara Local Aboriginal Lands Council			Invitation to test excavation	7/Aug/20	14/Aug/20	11/Aug/20	available
	Wailwan Aboriginal Group			Invitation to test excavation	7/Aug/20	14/Aug/20	7/Aug/20	Responded on 7 August - indicating availbility (via phone)
	Darug Custodian Aboriginal Corporation			Invitation to test excavation	7/Aug/20	14/Aug/20	11/Aug/20	available
	Dharug Ngurra Aboriginal Corporation (Darug tribal)			Invitation to test excavation	7/Aug/20	14/Aug/20	7/Aug/20	Responded on 7 August - indicating availbility (via email)
	Notification regarding test excavation							
	all registered parties not involved in test excavation			notification of test excavation	20/Aug/10	N/A		no response required
4.4	Stage 4: Review of draft cultural heritage assessment report	1 1		1	1	I.		
4.4.2	Gandangara Local Aboriginal Lands Council (Darren Duncan)	email		Cultural information and ACHA review	10/Sep/20			
4.4.2	Gandangara Local Aboriginal Lands Council (Ruth Sheridan)	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20		
4.4.2	Didge Ngunawal Clan	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20		
4.4.2	Goodradigbee	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20		
4.4.2	Kamilaroi-Yankuntjatjara Working Group	email		Cultural information and ACHA review	10/Sep/20		3/Oct/20	Agrees with the recommendations and with the artefacts being kept at Gandangara LALC.
4.4.2	Wailwan Aboriginal Group	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20	40/5 /7	Constant and a state of the base of Constant Con
4.4.2	Waawaar Awaaa Aboriginal Corporation	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20	10/Sep/20	Supports proposal for artefacts to be kept at Gandangara keeping place.
4.4.2	Dharug Ngurra Aboriginal Corporation	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20		
4.4.2	Galamaay	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20		
4.4.2	Cubbitch Barta	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20		
4.4.2	Barraby Cultural Services	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20		
4.4.2	Yurrandaali Yulay	email		Cultural information and ACHA review Cultural information and ACHA review	10/Sep/20	8/Oct/20		
4.4.2	Wurrumay	email email		Cultural information and ACHA review Cultural information and ACHA review	10/Sep/20	8/Oct/20		
4.4.2	Butucarbin Aboriginal Corporation	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20 8/Oct/20		
4.4.2	A1 Indigenous Services	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20	19/Sep/20	Supports the AC HA.
4.4.2	Guntawang Aboriginal Resources Incorporated	email		Cultural information and ACHA review	10/Sep/20 10/Sep/20	8/Oct/20	19/3ep/20	Supports the Activation
4.4.2	Darug Custodian Aboriginal Corporation	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20	6/Oct/20	Would like it acknowledged that this site is of significance to Aboriginal people and demonstrates the interconnection between places. In assessing the significance of sites cultural as well as archaeological significance needs to be considered. The report should state that Darug have cared for this land for thousands of years
4.4.2	Deerubin Local Aboriginal Lands Council	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20		
4.4.2	Aboriginal Consultative Committee	email		Cultural information and ACHA review	10/Sep/20	8/Oct/20	8/Sep/20	Email received. Norma will forward the report to the committee for review and comment.
4.4.2	Gandangara Local Aboriginal Lands Council (Darren Duncan)	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Gandangara Local Aboriginal Lands Council (Ruth Sheridan)	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Didge Ngunawal Clan	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Goodradigbee	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Kamilaroi-Yankuntjatjara Working Group	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Wailwan Aboriginal Group	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Waawaar Awaaa Aboriginal Corporation	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20	13/Oct/20	Email asking how RAPs were chosen for fieldwork. EMM's response included in Appendix C4.
4.4.2	Dharug Ngurra Aboriginal Corporation	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Galamaay	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Cubbitch Barta	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Barraby Cultural Services	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Yurrandaali	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2	Yulay	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2 4.4.2	Wurrumay Butucarbin Aboriginal Corporation	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2 4.4.2	A1 Indigenous Services	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
4.4.2		email email		reminder to review draft ACHA reminder to review draft ACHA	5/Oct/20	8/Oct/20 8/Oct/20		
4.4.2	Guntawang Aboriginal Resources Incorporated			reminder to review draft ACHA reminder to review draft ACHA	5/Oct/20 5/Oct/20	8/Oct/20 8/Oct/20		
4.4.2	Darug Custodian Aboriginal Corporation Deerubin Local Aboriginal Lands Council	email email		reminder to review draft ACHA reminder to review draft ACHA	5/Oct/20 5/Oct/20	8/Oct/20 8/Oct/20		
4.4.2	Aboriginal Consultative Committee	email		reminder to review draft ACHA	5/Oct/20	8/Oct/20		
	noonginal consultative committee	Cirilan			5,000/20	0/00/20		
					1			
	1	-		1	1	1		

C.2 Stage 1 – Notification and registration

This section contains the following documents:

- Government agency requests and responses;
- Public media notifications;
- Aboriginal party invitation to register for the project;
- Aboriginal party registrations of interest; and
- Notification to Heritage NSWss and the Gandangara LALC of registered parties.

24 April 2020

Steven Randall

2/9 Tindale St

Penrith NSW 2750

Deerubbin Local Aboriginal Land Council



Creating opportunities

Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Re: Luddenham Quarry SSD development - request for Aboriginal stakeholder information

Dear Steve,

EMM Consulting Pty Ltd (EMM Heritage) has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal cultural heritage assessment for the construction and operation of a Resource Recovery Centre at Luddenham Quarry. The precinct is located at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799), within the Liverpool City LGA. DPIE has advised that SEARs for the new State Significant Development (SSD) will stipulate the preparation of an Aboriginal cultural heritage assessment (ACHA) including Aboriginal consultation.

The proponent is Coombes Property Group/KLF Holdings, and the project contacts are:

Pascal Bobillier, General Manager – Development Coombes Property Group, Coombes Property Group, Level 5, 2 Grosvenor Street Bondi Junction; T: 0488 111 787; E: <u>pascal@coombesgroup.com.au</u>.

John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: john@klfholdings.com.au.

In accordance with NSW State government's *Aboriginal cultural heritage consultation requirements for proponents 2010*, I am writing to you to seek information on relevant Aboriginal individuals and/or communities that you are aware of in the region, and who may hold cultural knowledge and/or information about Aboriginal objects and sites in the vicinity. Could you please provide me with this information as soon as possible at the Sydney address above, or my e-mail, <u>pchauvel@emmconsulting.com.au</u>

If you have any questions or enquiries, please do not hesitate to contact me on 0433 398 733.

Yours sincerely

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Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au

24 April 2020



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Susan Harrison Senior Team Leader, Planning Greater Sydney Branch Department of Planning, Industry and Environment PO Box 644 Parramatta NSW 2124

Re: Luddenham Quarry SSD development - request for Aboriginal stakeholder information

Dear Susan,

EMM Consulting Pty Ltd (EMM Heritage) has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal cultural heritage assessment for the construction and operation of a Resource Recovery Centre at Luddenham Quarry. The precinct is located at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799), within the Liverpool City LGA. DPIE has advised that SEARs for the new State Significant Development (SSD) will stipulate the preparation of an Aboriginal cultural heritage assessment (ACHA) including Aboriginal consultation.

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John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: john@klfholdings.com.au.

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If you have any questions or enquiries, please do not hesitate to contact me on 0433 398 733.

Yours sincerely

Phannel

Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au

24 April 2020

Gandangara Local Aboriginal Land Council



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Re: Luddenham Quarry SSD development - request for Aboriginal stakeholder information

Dear Sir/Madam,

64 Macquarie Street

Liverpool NSW 2170

EMM Consulting Pty Ltd (EMM Heritage) has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal cultural heritage assessment for the construction and operation of a Resource Recovery Centre at Luddenham Quarry. The precinct is located at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799), within the Liverpool City LGA. DPIE has advised that SEARs for the new State Significant Development (SSD) will stipulate the preparation of an Aboriginal cultural heritage assessment (ACHA) including Aboriginal consultation.

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Pascal Bobillier, General Manager – Development Coombes Property Group, Coombes Property Group, Level 5, 2 Grosvenor Street Bondi Junction; T: 0488 111 787; E: <u>pascal@coombesgroup.com.au</u>.

John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: john@klfholdings.com.au.

In accordance with NSW State government's *Aboriginal cultural heritage consultation requirements for proponents 2010*, I am writing to you to seek information on relevant Aboriginal individuals and/or communities that you are aware of in the region, and who may hold cultural knowledge and/or information about Aboriginal objects and sites in the vicinity. Could you please provide me with this information as soon as possible at the Sydney address above, or my e-mail, <u>pchauvel@emmconsulting.com.au</u>

If you have any questions or enquiries, please do not hesitate to contact me on 0433 398 733.

Yours sincerely

hourd

Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au

Figure 1 Site location

From:	Darren Duncan <dduncan@glalc.org.au></dduncan@glalc.org.au>
Sent:	Friday, 24 April 2020 11:49 AM
То:	Pamela Chauvel
Cc:	Ruth Sheridan; Melissa Williams
Subject:	Request for Aboriginal stakeholders - Luddenham Quarry Resource Recovery Centre

Hi Pamela

I am Darren Duncan from Gandangara Aboriginal Land Council and would like to be involved in the project. Also if any other jobs come in would you be able to forward it to me or Ruth Sheridan at <u>RSheridan@glalc.org.au</u>

Kind Regards



Darren Duncan

Darren Duncan Cultural and Heritage Officer

Gandangara Local Aboriginal Land Council 64 Macquarie Street, Liverpool NSW 2170 | P.O Box 1038 Liverpool BC 1871 Ph: (02) 9602 5280 E: <u>DDuncan@glalc.org.au</u>

Gandangara Local Aboriginal Land Council acknowledges the Cabrogal People of the Darug Nation as the Traditional Owners & Custodians of the land we span. GLALC pays respects to Elders past, present and emerging. We also acknowledge the Tharawal (also historically known as D'harawal), which continue to have a longstanding relationship with this Country & our community. GLALC continues to value the generations of knowledge Aboriginal people embed within our organisation and community. 24 April 2020

Margaret Bottrell Greater Sydney Local Land Services PO Box 4515 Penrith Westfields NSW 2750



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Re: Luddenham Quarry SSD development - request for Aboriginal stakeholder information

Dear Margaret,

EMM Consulting Pty Ltd (EMM Heritage) has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal cultural heritage assessment for the construction and operation of a Resource Recovery Centre at Luddenham Quarry. The precinct is located at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799), within the Liverpool City LGA. DPIE has advised that SEARs for the new State Significant Development (SSD) will stipulate the preparation of an Aboriginal cultural heritage assessment (ACHA) including Aboriginal consultation.

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Pascal Bobillier, General Manager – Development Coombes Property Group, Coombes Property Group, Level 5, 2 Grosvenor Street Bondi Junction; T: 0488 111 787; E: <u>pascal@coombesgroup.com.au</u>.

John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: john@klfholdings.com.au.

In accordance with NSW State government's *Aboriginal cultural heritage consultation requirements for proponents 2010*, I am writing to you to seek information on relevant Aboriginal individuals and/or communities that you are aware of in the region, and who may hold cultural knowledge and/or information about Aboriginal objects and sites in the vicinity. Could you please provide me with this information as soon as possible at the Sydney address above, or my e-mail, <u>pchauvel@emmconsulting.com.au</u>

If you have any questions or enquiries, please do not hesitate to contact me on 0433 398 733.

Yours sincerely

Phonel

24 April 2020

Aboriginal Heritage Liaison Officer



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Re: Luddenham Quarry SSD development - request for Aboriginal stakeholder information

Dear Sir/Madam,

Liverpool City Council

Liverpool NSW 1871

Locked Bag 7064

EMM Consulting Pty Ltd (EMM Heritage) has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal cultural heritage assessment for the construction and operation of a Resource Recovery Centre at Luddenham Quarry. The precinct is located at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799), within the Liverpool City LGA. DPIE has advised that SEARs for the new State Significant Development (SSD) will stipulate the preparation of an Aboriginal cultural heritage assessment (ACHA) including Aboriginal consultation.

The proponent is Coombes Property Group/KLF Holdings, and the project contacts are:

Pascal Bobillier, General Manager – Development Coombes Property Group, Coombes Property Group, Level 5, 2 Grosvenor Street Bondi Junction; T: 0488 111 787; E: <u>pascal@coombesgroup.com.au</u>.

John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: john@klfholdings.com.au.

In accordance with NSW State government's *Aboriginal cultural heritage consultation requirements for proponents 2010*, I am writing to you to seek information on relevant Aboriginal individuals and/or communities that you are aware of in the region, and who may hold cultural knowledge and/or information about Aboriginal objects and sites in the vicinity. Could you please provide me with this information as soon as possible at the Sydney address above, or my e-mail, <u>pchauvel@emmconsulting.com.au</u>

If you have any questions or enquiries, please do not hesitate to contact me on 0433 398 733.

Yours sincerely

Phonel

Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au

Figure 1 Site location

From:	Pamela Chauvel
Sent:	Friday, 24 April 2020 8:26 AM
То:	enquiries@nntt.gov.au
Subject:	Request for Aboriginal stakeholders - Luddenham Quarry Resource Recovery Centre
Attachments:	J190749 NNTT search form request.docx

Dear Sir/Madam,

EMM Consulting have been engaged by Coombes Property Group/KLF Holdings to undertake an Aboriginal cultural heritage assessment for a State significant development (SSD) at Luddenham Quarry (Liverpool LGA). In accordance with NSW government guidelines, *Aboriginal cultural heritage consultation requirements for proponents 2010,* We are writing to you (attached) to seek information on any Aboriginal stakeholders you may be aware of in the region, and with whom we may need to consult with on this project.

Kind regards,

Pamela

Pamela Chauvel

Consultant Archaeologist



SYDNEY | Ground floor, 20 Chandos Street, St Leonards NSW 2065

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From:	Geospatial Search Requests <geospatialsearch@nntt.gov.au></geospatialsearch@nntt.gov.au>
Sent:	Friday, 24 April 2020 7:34 PM
То:	Pamela Chauvel
Subject:	RE: SR20/358 - Request for Aboriginal stakeholders - Luddenham Quarry Resource
	Recovery Centre - SR20/358
Attachments:	Geospatial Search Form 2020. dotx

UNCLASSIFIED

Native title search – *NSW Parcel* – *Lot 3 on DP623799* Your ref: *J190749* - Our ref: *SR20/358*

Change of e-mail address for Geospatial Searches

To ensure your search requests are received and processed in a timely manner, please forward to <u>GeospatialSearch@NNTT.gov.au</u> with a *completed search request form*. We have attached our current form for your convenience.

Dear Pamela Chauvel,

Thank you for your search request received on 24 April 2020 in relation to the above area.

Please note: Records held by the National Native Title Tribunal as at 24 April 2020 indicate that the identified parcel appears to be freehold, and freehold tenure extinguishes native title.

The National Native Title Tribunal does not hold data sets for freehold tenure; consequently, we **cannot** conduct searches over freehold. For confirmation of freehold data, please contact the NSW Land and Property Information office or seek independent legal advice.

For further information, please visit our <u>website</u>.

Cultural Heritage Searches in NSW

The National Native Title Tribunal (the Tribunal) has undertaken steps to remove itself from the formal list of sources for information about indigenous groups in development areas. The existence or otherwise of native title is quite separate to any matters relating to Aboriginal cultural heritage. Information on native title claims, native title determinations and Indigenous Land Use Agreements is available on the Tribunal's website.

Interested parties are invited to use Native Title Vision (NTV) the Tribunal's online mapping system to discover native title matters in their area of interest. Access to NTV is available at http://www.nntt.gov.au/assistance/Geospatial/Pages/NTV.aspx

Training and self-help documents are available on the NTV web page under "Training and help documents". For additional assistance or general advice on NTV please contact <u>GeospatialSearch@NNTT.gov.au</u>

Additional information can be extracted from the Registers available at http://www.nntt.gov.au/searchRegApps/Pages/default.aspx

If you have any further queries, please do not hesitate to contact us on the free call number 1800 640 501.

Regards,

Geospatial Searches National Native Title Tribunal | Perth From: Pamela Chauvel chauvel@emmconsulting.com.au
Sent: Friday, 24 April 2020 8:26 AM
To: Enquiries <<u>Enquiries@nntt.gov.au</u>
Subject: Request for Aboriginal stakeholders - Luddenham Quarry Resource Recovery Centre

Caution: This is an external email. DO NOT click links or open attachments unless you recognise the sender and know the content is safe.

Dear Sir/Madam,

EMM Consulting have been engaged by Coombes Property Group/KLF Holdings to undertake an Aboriginal cultural heritage assessment for a State significant development (SSD) at Luddenham Quarry (Liverpool LGA). In accordance with NSW government guidelines, *Aboriginal cultural heritage consultation requirements for proponents 2010,* We are writing to you (attached) to seek information on any Aboriginal stakeholders you may be aware of in the region, and with whom we may need to consult with on this project.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



T 02 9493 9500
M 0433 398 733
D 02 9493 9554
Connect with us

SYDNEY | Ground floor, 20 Chandos Street, St Leonards NSW 2065

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George Tonna Native Title Services Corporation PO Box 2105 Strawberry Hills NSW 2012



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Re: Luddenham Quarry SSD development - request for Aboriginal stakeholder information

Dear George,

EMM Consulting Pty Ltd (EMM Heritage) has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal cultural heritage assessment for the construction and operation of a Resource Recovery Centre at Luddenham Quarry. The precinct is located at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799), within the Liverpool City LGA. DPIE has advised that SEARs for the new State Significant Development (SSD) will stipulate the preparation of an Aboriginal cultural heritage assessment (ACHA) including Aboriginal consultation.

The proponent is Coombes Property Group/KLF Holdings, and the project contacts are:

Pascal Bobillier, General Manager – Development Coombes Property Group, Coombes Property Group, Level 5, 2 Grosvenor Street Bondi Junction; T: 0488 111 787; E: <u>pascal@coombesgroup.com.au</u>.

John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: john@klfholdings.com.au.

In accordance with NSW State government's *Aboriginal cultural heritage consultation requirements for proponents 2010*, I am writing to you to seek information on relevant Aboriginal individuals and/or communities that you are aware of in the region, and who may hold cultural knowledge and/or information about Aboriginal objects and sites in the vicinity. Could you please provide me with this information as soon as possible at the Sydney address above, or my e-mail, <u>pchauvel@emmconsulting.com.au</u>

If you have any questions or enquiries, please do not hesitate to contact me on 0433 398 733.

Yours sincerely

Phonel

Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au

Figure 1 Site location

From:	Pamela Chauvel
Sent:	Friday, 24 April 2020 9:11 AM
То:	adminofficer@oralra.nsw.gov.au
Subject:	Request for Aboriginal stakeholders - Luddenham Quarry Resource Recovery Centre
Attachments:	Request for search of land claim register 2020-04-24 09.05.47.pdf

Dear Sir/Madam,

EMM Consulting have been engaged by Coombes Property Group/KLF Holdings to undertake an Aboriginal cultural heritage assessment for a State significant development (SSD) at Luddenham Quarry (Liverpool LGA). In accordance with NSW government guidelines, *Aboriginal cultural heritage consultation requirements for proponents 2010,* We are writing to you (attached) to seek information on any Aboriginal stakeholders you may be aware of in the region, and with whom we may need to consult with on this project.

Kind regards,

Pamela

Pamela Chauvel

Consultant Archaeologist



SYDNEY | Ground floor, 20 Chandos Street, St Leonards NSW 2065

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Our reference: Doc20/324496

Pamela Chauvel Consultant Archaeologist Ground floor, 20 Chandos Street St Leonards NSW 2065

Dear Pamela,

Thank you for your letter dated 24 April 2020 to the Department of Planning Industry and Environment (the Department) regarding obtaining a list of the Aboriginal stakeholders that may have an interest in the proposed development at for the construction and operation of a Resource Recovery Centre at Luddenham Quarry. The precinct is located at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799).

Please find attached the list of Aboriginal stakeholders known to the Department that may have an interest in the project.

As the Planning and Assessment Group in the Department is the approval authority for this project, the consultation process should be in accordance with the relevant guidelines as stipulated by the Group.

If you wish to discuss any of the above matter further please email gs.ach@environment.nsw.gov.au.

Yours sincerely

S. Hannison

29/04/20

Susan Harrison Senior Team Leader Planning Greater Sydney Branch Environment, Energy and Science

LIST OF ABORIGINAL STAKEHOLDERS FOR THE <u>GREATER SYDNEY BRANCH</u> HELD BY OEH FOR THE PURPOSES OF THE ABORIGINAL CULTURAL HERITAGE CONSULTATION REQUIREMENTS FOR PROPONENTS 2010

These lists are provided to proponents in accordance with section 4.1.2 of the Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (the "Consultation Requirements") which commenced on 12 April 2010.

The consultation process involves getting the views of, and information from, Aboriginal people and reporting on these. It is not to be confused with other field assessment processes involved in preparing a proposal and an application. Consultation does not include the employment of Aboriginal people to assist in field assessment and/or site monitoring. Aboriginal people may provide services to proponents through a contractual arrangement however, this is separate from consultation. The proponent is not obliged to employ those Aboriginal people registered for consultation as per these requirements will continue irrespective of potential or actual employment opportunities for Aboriginal people.

A copy of the Consultation Requirements can be found on the OEH website at: http://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreq.pdf.

Under the Consultation Requirements; a proponent is required to provide Aboriginal people who hold cultural knowledge relevant to determining the cultural significance of Aboriginal objects and/or places as relevant to the proposed project area, with an opportunity to be involved in consultation. Section 3.3.1 of the Consultation Requirements states that Aboriginal people who can provide this information are, based on Aboriginal lore and custom, the traditional owners or custodians of the land that is the subject of the proposed project.

The Consultation Requirements also state that:

Traditional owners or custodians with appropriate cultural heritage knowledge to inform decision making who seek to register their interest as an Aboriginal party are those people who:

- continue to maintain a deep respect for their ancestral belief system, traditional lore and custom
- recognise their responsibilities and obligations to protect and conserve their culture and heritage and care for their traditional lands or Country
- have the trust of their community, knowledge and understanding of their culture, and permission to speak about it.

Please note: the placement of an organisation's name on any OEH Aboriginal stakeholder list for the Consultation Requirements does not override a proponent's requirement to also advertise in the local newspaper and to seek from other sources the names of any other Aboriginal people who may hold cultural knowledge as required under clause 80C of the <u>National Parks and</u> <u>Wildlife Regulation 2009</u>.

How to use this list

- 1. Determine which Local Government Area/s (LGA/s) your project area falls into
- 2. Identify which organisations and individuals on the list have an interest in the LGA/s relevant to your project identified in column 6 of the list
- 3. Contact the organisations/individuals who have indicated an interest in the relevant LGA/s and invite them to register an interest in your project

Do not reproduce the attached list in publicly available reports and other documents. Your report should only contain the names of the organisations and individuals who you have invited to register an interest in your project and those who have registered as stakeholders for your project.

PLEASE NOTE: THE STAKEHOLDER LIST HAS NOT BEEN UPDATED TO INCLUDE THE RECENT COUNCIL MERGERS AND NAME CHANGES. PLEASE CONSIDER THE PRE-MERGER COUNCIL BOUNDARIES WHEN DETERMINING WHO SHOULD BE INVITED TO REGISTER FOR YOUR PROJECT. Last updated 20 April 2020

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
Deerubbin Local Aboriginal Land Council	Kevin Cavanagh	(02) 4724 5600	srandall@deerubbin.org.au Reception@deerubbin.org.au F: (02) 4722 9713	Level 1, Suite 3 291-295 High Street, Penrith NSW 2750 PO Box 40, Penrith NSW 2751	Hawkesbury Blacktown Penrith Fairfield	Holroyd Blue Mountains The Hills Shire Parramatta	
Tharawal Local Aboriginal Land Council	Robyn Straub (CEO)	(02) 46810059	ceo@tharawal.com.au reception@tharawal.com.au	PO Box 245 Thirlmere NSW 2572	Camden Campbelltown Wollondilly	Sutherland Liverpool	
Metropolitan Local Aboriginal Land Council	Nathan Moran	(02) 83949666	officeadmin@metrolalc.org.au	PO Box 1103 Strawberry Hills NSW 2016	The Hills Shire Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Burwood Ashfield Auburn Canada Bay Hawkesbury	Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Gandangara Local Aboriginal Land Council	Melissa Williams CEO	(02) 96025280	mwilliams@glalc.org.au	PO Box 1038 Liverpool NSW 2170	Liverpool Fairfield Holroyd Parramatta	Auburn Bankstown Sutherland	
La Perouse Local Aboriginal Land Council	Chris Ingrey	(02) 9311 4282	Not provided	PO Box 365 Matraville NSW 2036	Sutherland Randwick Botany Bay Waverly	Woollahra Sydney Rockdale	
Parramatta City Council Aboriginal Advisory Committee	Parramatta City Council	(02)9806 5050	Not provided	PO Box 32, Parramatta, NSW, 2124	Parramatta		
Holroyd City Council Advisory Committee	Holroyd City Council	(02) 9840 9840	Not provided	P.O. Box 42, Merrylands, NSW 2160	Holroyd		
Darug Custodian Aboriginal Corporation	Justine Coplin	0414 962 766	justinecoplin@optusnet.com.au	PO Box 81, Windsor NSW 2756	Hawkesbury Blacktown Penrith Fairfield Holroyd Blue Mountains	Camden Campbelltown The Hills Shire Liverpool Parramatta	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
Darug Tribal Aboriginal Corporation	Not provided	02 9622 4081	Not provided	PO Box 441, Blacktown NSW 2148	Hawkesbury Blacktown Penrith Fairfield Holroyd Blue Mountains	Camden Campbelltown The Hills Shire Liverpool Parramatta	
Darug Aboriginal Cultural Heritage Assessments	Gordon Morton	02 9410 3665 or 0422 865 831	Not provided	Unit 9, 6 Chapman Avenue, Chatswood, NSW 2067	Hawkesbury Blacktown Penrith Fairfield Holroyd Blue Mountains Camden Campbelltown The Hills Shire Liverpool Parramatta Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown	Strathfield Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Darug Land Observations	Jamie Workman and Anna Workman	0418 494 951 0413 687 279	daruglandobservations@gmail.co m	PO Box 173, Ulladulla, NSW 2539	Ashfield Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden Campbelltown Canada Bay Canterbury Fairfield Hawkesbury The Hills Holroyd Hornsby Hunter's Hill Hurstville Kogarah Ku-ring-gai Lane Cove	Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde Strathfield Sutherland Sydney Warringah Waverley Willoughby Woollahra Wollondilly	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
Darug Aboriginal Land Care	Mark Dyer	0428 714 242	markdyer2009@live.com.au	PO Box 405 Donnside 2767 NSW	Hawkesbury Blacktown Penrith Fairfield Holroyd	Camden Campbelltown The Hills Shire Liverpool Parramatta	
Ken Foster		0411 818 091	Not provided	68 Australia St Matraville	Sutherland		
La Perouse Botany Bay Corporation	Yvonne Simms	04660 94491	Fax (02) 9311 3440	10 Murrong Place, La Perouse NSW 2036	Sutherland		
Norma Simms		04660 94491	Not provided	10 Murrong Place, La Perouse NSW 2036	Sutherland		
Matthew and Andrew Coe		(08)83442196	Not provided	37 Derlanger Avenue, Collingswood, South Australia 5081	Sutherland		
Gundungurra Aboriginal Heritage Association Inc	Merle Williams	02 4757 3223	Not provided	PO Box 31, Lawson NSW 2783	Blue Mountains		
Gundungurra Tribal Council Aboriginal Corporation	Sharon Brown	02 4729 3713	Not provided	PO Box 7244, Leura NSW 2780	Blue Mountains		
Trevor Robinson		Not provided	Not provided	PO Box 73, Peak Hill, NSW 2869	Blue Mountains		
Tania Matthews		0409 193 612/ (02) 67924038	aboriginalhistoryhunter@gmail.co m	U2 11 Walowa Street, Narrabri, NSW 2390	Blue Mountains		
A1 Indigenous Services	Carolyn Hickey	0411 650 057	<u>cazadirect@live.com</u>	10 Marie Pitt Place Glenmore Park 2745 NSW.	Blue Mountains Ashfield Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden Campbelltown Canada Bay Canterbury Fairfield Hawkesbury The Hills Holroyd Hornsby Hunter's Hill		Carolyn is Wonnarua

Organisation/	Contact Name	Phone Number	Email Address/	Postal	LGA's		Additional information
Individual			Fax	Address	Hurstville Kogarah Ku-ring-gai Lane Cove Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde Strathfield Sutherland Sydney Warringah Waverley Willoughby Woollahra Wollondilly		
Cubbitch Barta	Glenda Chalker Rebecca	0427 218 425 Not Provided	Not provided Not provided	55 Nightingale Rd, Pheasants Nest NSW 2574 99 Menangle street,	Camden Campbelltown	Liverpool Wollondilly	
Eric Keidge	Chalker	04311 66423	Not provided	Picton 2571 11 Olsson Close Hornsby Heights NSW 2077	The Hills Shire Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Burwood Ashfield Auburn Canada Bay	Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Gunjeewong Cultural Heritage Aboriginal Corporation	Cherie Carroll Turrise	(02) 6355 4110 0456 116 408 0409 558 846	Gunjeewong53@hotmail.com	1 Bellvue Place, Portland NSW, 2847	Hawkesbury Blacktown Penrith Fairfield	Holroyd Camden Campbelltown Parramatta	Cherie is a Ngunnawal Elder however lived in the Western Sydney area during her childhood.

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
	Cheryl Carroll Lagerwey		<u>cheryl_carroll13lagerwey@hotmail</u> . <u>.com</u>	135 Winten Drive Glenndenning 2761			She recognises she is not from the area but has associations
		0438 428 805					
Corroboree Aboriginal Corporation	Marilyn Carroll- Johnson	0415911159	corroboreecorp@bigpond.com	PO Box 3340, Rouse Hill, NSW 2155	Western Sydney Camden Hawkesbury Blacktown Penrith Fairfield	Campbelltown Parramatta Holroyd Camden	Ngunnawal and lives in Western Sydney
Murra Bidgee Mullangari Aboriginal Corporation	Darleen Johnson	0490 051 102	Not provided	PO Box 246, Seven Hills, NSW, 2147	Hawkesbury Blacktown Penrith Fairfield	Holroyd Camden Campbelltown Parramatta	Ngunnawal and lives in Western Sydney
Muragadi Heritage Indigenous Corporation	Jesse Johnson	0447 970 049	muragadi@yahoo.com.au	5 Hession Road, Nelson, NSW 2765	Western Sydney Camden	Campbelltown Parramatta	Ngunnawal and lives in Western Sydney
Bidjawong Aboriginal Corporation	James Carroll	0433 224 324	Not provided	PO Box 124, Round Corner, NSW 2158	Hawkesbury Blacktown Penrith Fairfield	Holroyd Camden Campbelltown Parramatta	
Kamilaroi Yankuntjatjara Working Group	Phil Khan	0434 545 982	philipkhan.acn@live.com.au	78 Forbes Street, Emu Plains, NSW 2750	Blue Mountains Ashfield Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden Cambelltown Canada Bay Canterbury Fairfield Canberra Hawkesbury The Hills Holroyd Hornsby Hunter's Hill Hurstville		

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Kogarah Ku-ring-gai Lane Cove Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde Strathfield Sutherland Sydney Warringah Waverley Willoughby Woollahra Wollondilly		
Wurrumay Pty Ltd	Kerrie Slater and Vicky Slater	0421077521	wurrumay@hotmail.com;	89 Pyramid street, Emu Plains NSW 2750 PO Box 414 Emu Plains NSW 2750	Hawkesbury Blacktown Penrith Fairfield Holroyd Blue Mountains Sutherland Liverpool	Camden Campbelltown Parramatta Wollondilly The Hills Shire Auburn Bankstown	
Warragil Cultural Services	Aaron Slater (Manager)	0481 280 067	Warragil c.s@hotmail.com		Hawkesbury Blacktown Penrith Fairfield	Holroyd Camden Campbelltown Liverpool Parramatta	
Tocomwall	Scott Franks	0404 171 544	Not provided	PO Box 76, Caringbah NSW 1495	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown The Hills Shire Liverpool	Strathfield Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
D'harawal Mens Aboriginal Corporation	Elwyn Brown	0401920982	Not provided	187 Riverside Drive, Airds NSW 2560	Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Camden Campbelltown	Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Wollondilly	
Amanda Hickey Cultural Services	Amanda Hickey	0434 480 588	amandahickey@live.com.au	57 Gough st emu plains 2750	Blue Mountains Ashfield Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden Campbelltown Canada Bay Canterbury Fairfield Hawkesbury The Hills Holroyd Hornsby Hunter's Hill Hurstville Kogarah Ku-ring-gai Lane Cove	Strathfield Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Liverpool Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Penrith Parramatta Marrickville Wollondilly	Amanda is Wonnarua
Widescope Indigenous Group	Steven Hickey and Donna Hickey	0425 230 693 (Steven) 0425 232 056 (Donna)	Not provided	73 Russell Street, Emu Plains, NSW 2750	Hawkesbury Blacktown Penrith	Fairfield Holroyd Parramatta Blue Mountains	
Dhinawan Culture & Heritage Pty Ltd	Stephen Fields	0411232285	dhinawan.ch@gmail.com		Hawkesbury Blacktown Penrith Fairfield		

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Cumberland Parramatta Hornsby The Hills Hornsby Ryde Auburn Blue Mountains Campbelltown Liverpool		
HSB Consultants	Patricia Hampton	0424 142 216	Not provided	62 Ropes Crossing Boulevard, Ropes Crossing 2760	Hawkesbury Blacktown Penrith	Fairfield Holroyd Parramatta	
Rane Consulting	Tony Williams	02 88246991	ajw1901@bigpond.com	1 Pyrenees Way Beaumont Hills NSW 2155	Hawkesbury Blacktown Penrith	Fairfield Holroyd Parramatta	
Anthony Williams		0456 399 687	Not provided	Unit 2 / 24 Goodwin Street Narrabeen NSW 2101	Hawkesbury Blacktown Penrith	Fairfield Holroyd Parramatta	
Gunyuu	Kylie Ann Bell	Not provided	gunyuuchts@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River.
Walbunja	Hika Te Kowhai	0402 730 612	walbunja@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Wollondilly	
Badu	Karia Lea Bond	0476 381 207	Not provided	11 Jeffery Place, Moruya, NSW 2537	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Goobah Developments	Basil Smith	0405 995 725	Not provided	66 Grantham Road, Batehaven NSW, 2536	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Wullung	Lee-Roy James Boota	0403 703 942	Not provided	54 Blackwood Street, Gerringong, NSW, 2534	Hawkesbury Blacktown Penrith	Burwood Ashfield Auburn	This group states that their boundaries (Murrin Peoples)

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	extend from the Hawkesbury River to the Snowy River
Yerramurra	Robert Parson	Not provided	<u>yerramurra@gmail.com</u>	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Nundagurri	Newton Carriage	Not Provided	nundagurri@gmail.com	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Marrickville Bankstown Strathfield	Warringah Willoughby	
Murrumbul	Mark Henry	Not provided	murrumbul@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River.
Jerringong	Joanne Anne Stewart	0422 800 184	jerringong@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Pemulwuy CHTS	Pemulwuy Johnson	0425 066 100	pemulwuyd@gmail.com	14 Top Place, Mt Annan	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown The Hills Shire Liverpool	Strathfield Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown	Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Bilinga	Simalene Carriage	Not provided	<u>bilingachts@gmail.com</u>	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River.
Munyunga	Kaya Dawn Bell	Not provided	munyungachts@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River.
Wingikara	Hayley Bell	Not provided	wingikarachts@gmail.com	Not provided	Hawkesbury Blacktown Penrith	Burwood Ashfield Auburn	This group states that their boundaries (Murrin Peoples)

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	extend from the Hawkesbury River to the Snowy River.
Minnamunnung	Aaron Broad	0402 526 888	Not provided	1 Waratah Avenue, Albion Park Rail NSW 2527	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield	Burwood Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby	
Walgalu	Ronald Stewart	Not provided	walgaluchts@gmail.com	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Marrickville Bankstown Strathfield Randwick Woollahra	Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	
Thauaira	Shane Carriage	Not provided	<u>thauairachts@gmail.com</u>	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Dharug	Andrew Bond	Not provided	<u>dharugchts@gmail.com</u>	Not provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Woollahra	The Hills Waverly Wollondilly	
Gulaga	Wendy Smith	Not Provided	gulagachts@gmail.com	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Biamanga	Seli Storer	Not Provided	<u>biamangachts@gmail.com</u>	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
Callendulla	Corey Smith	Not Provided	<u>cullendullachts@gmail.com</u>	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
Murramarang	Roxanne Smith	Not Provided	murramarangchts@gmail.com	Not Provided	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	This group states that their boundaries (Murrin Peoples) extend from the Hawkesbury River to the Snowy River
DJMD Consultancy	Darren Duncan	0410 510 397	darrenjohnduncan@gmail.com	Not Provided	Hawkesbury Blacktown Penrith Parramatta	Ashfield Auburn Canada Bay Leichhardt	Darren is associated with Metro and Deerubbin LALCs

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Sydney Marrickville Strathfield Warringah Willoughby Blue Mountains Burwood The Hills Ryde	Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater	
Butucarbin Aboriginal Corporation	Jennifer Beale	(02)9832 7167	butuheritage@gmail.com.	PO Box E18, Emerton, NSW 2770	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	Preferred contact via email
Didge Ngunawal Clan	Lillie Carroll Paul Boyd	0426 823 944	didgengunawalclan@yahoo.com.a	33 Carlyle Crescent Cambridge Gardens NSW 2747	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale	Ashfield Auburn Canada Bay Leichhardt Manly Mosman	

Organisation/ Individual	Contact Name	Phone Number	Email Address/	Postal	LGA's		Additional information
			Fax	Address	Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	
Ginninderra Aboriginal Corporation	Steven Johnson and Krystle Carroll	0406991221	<u>Ginninderra.corp@gmail.com</u>	PO BOX 3143 Grose Vale NSW 2754	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	
Garrara Aboriginal Corporation	Raymond Ingrey		raymond@bariyu.org.au		Sutherland Liverpool Camden Campbelltown Wollondilly		
Duncan Falk Consultancy	Duncan Falk	0406 610 644	duncanfalk@hotmail.com	34 Robinia Drive, Bowral NSW 2576	Camden Campbelltown		
Sharon Hodgetts		0405288814	sharonhodgetts@hotmail.com	21/29 Central Coast Hwy West Gosford 2250	Hawkesbury		
Wailwan Aboriginal Group	Philip Boney	0436 483 210	waarlan12@outlook.com		Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly	
Guntawang Aboriginal Resources Incorporated	Wendy Morgan	0414 964 657 9601 7183	Wenlissa01@hotmail.com	113 Reservoir Road Mt Pritchard NSW 2170	Camden Campbelltown Liverpool Fairfield Holroyd Wollondilly Blue Mountains		
Barking Owl Aboriginal Corporation	Mrs Jody Kulakowski (Director)	0426 242 015	barkingowlcorp@gmail.com	2-65/69 Wehlow St. Mt Druitt	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	
Yulay Cultural Services	Arika Jalomaki (Manager)	0411 048 794	yulayculturalservices@gmail.com	15 Rowley Place, Airds NSW 2560	Deerubbin LALC		LGAs of interest not specified, rather, LALC boundaries

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Tharawal LALC Gandangarra LALC		within which the organisation wish to be consulted
Thoorga Nura	John Carriage (Chief Executive Officer)	0401 641 299	thoorganura@gmail.com	50B Hilltop Crescent, Surf Beach, 2536, NSW	Ashfield Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden Campbelltown Canada Bay Canterbury Fairfield Hawkesbury The Hills Holroyd Hornsby Hunter's Hill Hurstville Kogarah Ku-ring-gai Lane Cove	Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde Strathfield Sutherland Sydney Warringah Waverley Willoughby Woollahra Wollondilly	
Barraby Cultural Services	Lee Field (Manager)	0423 906 606	barrabyculturalservices@gmail.co m	6 Macgibbon Parade, Old Erowal Bay, NSW 2540	Tharawal LALC Gandagarra LALC		LGAs of interest not specified, rather, LALC boundaries within which the organisation wish to be consulted
Yurrandaali Cultural Services	Bo Field (Manager)	0457 546 643	yurrandaali_cs@hotmail.com	3 Sheeran Street, Old Erowal Bay NSW 2540	Tharawal LALC Gandagarra LALC		LGAs of interest not specified, rather, LALC boundaries within which the organisation wish to be consulted
Darug Boorooberongal Elders Aboriginal Corporation	Paul Hand (chairpe rson)	0456786738	paulhand1967@gmail.com	PO.Box 14 Doonside NSW 2767	Ashfield Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden	Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Campbelltown Canada Bay Canterbury Fairfield Hawkesbury The Hills Holroyd Hornsby Hunter's Hill Hurstville Kogarah Ku-ring-gai Lane Cove	Randwick Rockdale Ryde Strathfield Sutherland Sydney Warringah Waverley Willoughby Woollahra Wollondilly	
B.H. Heritage Consultants	Ralph Hampton Nola Hampton	0435 785 138 0401 662 531	hamptonralph46@gmail.com	184 Captain Cook Drive Willmot 2770 NSW 95 Mount Ettalong Road Umina Beach 2257 NSW	Hawkesbury Blacktown Penrith Fairfield Holroyd Camden Campbelltown Liverpool Parramatta Sutherland Sydney Kogarah Hurstville Rockdale Canterbury Marrickville Bankstown Strathfield Randwick Woollahra	Ashfield Auburn Canada Bay Leichhardt Manly Mosman North Sydney Lane Cove Hunters Hill Hornsby Ku-Ring-Gai Pittwater Botany Bay Ryde Warringah Willoughby Blue Mountains Burwood The Hills Waverly Wollondilly	Nola and Ralph would BOTH like to be notified of all projects
Ngambaa Cultural Connections	Kaarina Slater	0417861882	ngambaaculturalconnections@hot mail.com	6 Natchez Cresent, Greenfield Park NSW 2167	Ashfield Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden Campbelltown Canada Bay	Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde	LALC boundaries within which the organisation wish to be consulted: Deerubbin LALC Gandangarra LALC Tharawal LALC

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
					Canterbury Fairfield Hawkesbury The Hills Holroyd Hornsby Hunter's Hill Hurstville Kogarah Ku-ring-gai Lane Cove	Strathfield Sutherland Sydney Warringah Waverley Willoughby Woollahra Wollondilly	
Goodradigbee Cultural & Heritage Aboriginal Corporation,	Caine Carroll	0410974236	goodradigbee1@outlook.com	<u>1 Morilla Road, East Kurrajong NSW 2758</u>	Ashfield Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden Campbelltown Canada Bay Canterbury Fairfield Hawkesbury The Hills Holroyd Hornsby Hunter's Hill Hurstville Kogarah Ku-ring-gai Lane Cove	Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde Strathfield Sutherland Sydney Warringah Waverley Willoughby Woollahra Wollondilly	
Mura Indigenous Corporation,	Phillip Carroll	0448824188	mura.indigenous@bigpond.com	<u>11 Nargal Street</u> Flinders NSW 2529	Ashfield Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden Camden Campbelltown Canada Bay Canterbury Fairfield	Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde Strathfield	

Organisation/	Contact Name	Phone Number	Email Address/	Postal	LGA's		Additional information
Individual			Fax	Address	Hawkesbury The Hills Holroyd Hornsby Hunter's Hill Hurstville Kogarah Ku-ring-gai Lane Cove	Sutherland Sydney Warringah Waverley Willoughby Woollahra Wollondilly	
Aragung Aboriginal Cultural Heritage Site Assessments	Jamie Eastwood	0427793334 0298323732	James.eastwood@y7mail.com	<u>33 Bulolo Drive</u> Whalan NSW 2770	Ashfield Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden Campbelltown Canada Bay Canterbury Fairfield Hawkesbury The Hills Holroyd Hornsby Hunter's Hill Hurstville Kogarah Ku-ring-gai Lane Cove	Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde Strathfield Sutherland Sydney Warringah Waverley Willoughby Woollahra Wollondilly	
Louise Adermann	Louise Adermann	0405037869	louiseadermann@hotmail.com	Number 10/8 Selmon Street Sans Souci 2219 NSW	Bayside Council. The Bayside Council area includes the suburbs of Arncliffe, Banksia, Banksmeadow , Bardwell Park, Bardwell Valley, Bexley, Bexley North, Botany, Brighton-Le- Sands, Carlton		

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's		Additional information
Paul Gale	Paul Gale	0404652922	Cenobite100@gmail.com	67 Ginahgullah	(part), Daceyville, Dolls Point, Eastgardens, Eastlakes, Hillsdale, Kingsgrove (part), Kogarah (part), Kyeemagh, Mascot, Monterey, Pagewood, Ramsgate (part), Ramsgate Beach, Rockdale, Rosebery (part), Sandringham, Sans Souci (part), Turrella and Wolli Creek Blue		
				Avenue Gross Vale NSW 2753	Mountains Blacktown Hawkesbury		
Waawaar Awaa	Rodney Gunther	0410580962	Waawaar.awaa@gmail.com	15 Bungonia Street Prestons NSW 2170	Auburn Bankstown Blacktown Blue Mountains Botany Bay Burwood Camden Campbelltown Canada Bay Canterbury Fairfield	Leichhardt Liverpool Manly Marrickville Mosman North Sydney Parramatta Penrith Pittwater Randwick Rockdale Ryde Strathfield Sutherland	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's	Additional information
					The HillsSydneyHolroydWarringahHornsbyWaverleyHunter's HillWilloughbyHurstvilleWoollahraKogarahWollondillyKu-ring-gaiLane Cove	
Clive Freeman	Clive Freeman	Mob:0437721481 Home Number: 02-44421117	<u>clive.freeman@y7mail.com</u>	6 Dhugan Close Wreck Bay Aboriginal Community JBT 2540	Blacktown, Penrith Fairfield Parramatta Blue Mountains Holroyd Bankstown Liverpool Camden Campbelltown Wollondilly Sutherland Kogarah Randwick Auburn Canada Bay Strathfield Sydney Woollahra Waverley Burwood Ashfield Leichhardt Marrickville	
Guringai Tribal Link Aboriginal Corporation	Tracey Howie	0404 182 049	tracey@guringai.com.au	PO Box 4061 Wyongah NSW 2259	North Sydney Lane Cove Hornsby Ku-Ring-Gai Pittwater Hawkesbury	

Organisation/ Individual	Contact Name	Phone Number	Email Address/ Fax	Postal Address	LGA's	Additional information
Galamaay Cultural Consultants (GCC)	Robert Slater	Mob: 0401 871 526	galamaay@hotmail.com		121 Robert Street, Tamworth NSW 2340	Penrith Fairfield Parramatta Holroyd Bankstown Liverpool Camden Campbelltown Wollondilly Sutherland Auburn

From:	Dharug Ngurra Aboriginal Corporation ICN 2734 <darug_tribal@live.com.au></darug_tribal@live.com.au>
Sent:	Friday, 8 May 2020 8:35 AM
То:	Pamela Chauvel
Subject:	RE: Luddenham Quarry - notification of project

Dear Pamela, DNAC would like to register as Traditional Custodians of Dharug Ngurra. Regards, Corina

From: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Sent: Friday, 8 May 2020 8:10 AM
To: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Subject: Luddenham Quarry - notification of project

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



T 02 9493 9500
M 0433 398 733
D 02 9493 9554
Connect with us

SYDNEY | Ground floor, 20 Chandos Street, St Leonards NSW 2065

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From:	lilly carroll <didgengunawalclan@yahoo.com.au></didgengunawalclan@yahoo.com.au>
Sent:	Friday, 8 May 2020 9:42 AM
To:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of project
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

Hi Pamela

DNC would like to register an interest into Re: Luddenham quarry

Kind regards DNC Paul Boyd 0426823944

Sent from Yahoo Mail for iPhone

On Friday, May 8, 2020, 8:10 am, Pamela Chauvel chauvel@emmconsulting.com.au> wrote:

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards,

Pamela

Pamela Chauvel Consultant Archaeologist





D 02 9493 9554Connect with us

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Please consider the environment before printing my email.

From: Sent: To: Subject: Attachments: Pamela Chauvel Friday, 8 May 2020 8:10 AM Pamela Chauvel Luddenham Quarry - notification of project J190749_Invitation to register.pdf

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



SYDNEY | Ground floor, 20 Chandos Street, St Leonards NSW 2065

Please consider the environment before printing my email.

Pub makes grand return

Eight years after it was destroyed by fire, The Log Cabin will be back by the river

TROY DODDS

This is your first glimpse at what the revitalised Log Cabin will look like, with the site's new owners confirming they're pushing ahead with a plan to re-build the iconic hotel.

The *Weekender* first reported plans were underway for a new hotel on the site near the Nepean River in March.

Now, a consortium including the Cottle family, the Laundy family and local businessman Rob Wearn have confirmed plans for the hotel, which will retain the original Log Cabin name.

The Log Cabin was destroyed by a devastating fire in 2012.

The new design consists of a two storey hotel with indoor and outdoor bars and dining areas looking over the Nepean River. It also features an expansive beer garden and children's playground, with fine dining and function areas upstairs.

The developers exchanged contracts on the site in late 2019 with the previous owner and long-time publican, Ross Sinclair.

The planned reconstruction of the hotel will represent a continuation of over 200 years of hotel history on the site.

"This venue has always been representa-



An artist's impression of what the new Log Cabin will look like.

tive of my family's love for the Penrith community," Mr Sinclair said.

"Many people in Penrith had their first beer, first dates, celebrated sporting championships and community events here over the years. To have that legacy continue into a third century is extremely important to me, and not to mention very rare from an Australian heritage perspective." A Development Application (DA) for the new hotel has been submitted by FDC Construction, the company behind the Marsden Brewhouse in Marsden Park, The Locker Room Hotel in Sydney Olympic Park and a large business estate at Erskine Park.

Arthur Laundy said he was thrilled to be involved with the project.

"The Laundy family has been involved in

pubs in western Sydney for over 70 years," he said.

"The Log Cabin has always been the jewel of the western Sydney pub scene, so it is an absolute thrill to be involved with good friends and partners in restoring the Log Cabin Hotel to its former glory."

Council will review the DA in coming months with construction aiming to commence in late 2020.

Invitation for Registrations of Interest ABORIGINAL CULTURAL HERITAGE ASSESSMENT Luddenham Quarry, Liverpool LGA

Coombes Property Group/KLF Holdings are proposing to construct and operate a Resource Recovery Centre (RRC) at Luddenham Quarry, 275 Adams Road, Luddenham NSW.

Aboriginal organisations or Aboriginal persons who hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or Aboriginal places in the area of the proposal are invited to register an interest in a process of community consultation with the proponent regarding the proposal.

Proponent contacts for the project are: Pascal Bobillier, Coombes Property Group, **T: 0488 111 787**; **E: pascal@coombesgroup.com. au**; and John Scarlis, KLF Holdings Ltd, **T: 0424 731 495; E: john@ klfholdings.com.au**

The purpose of community consultation with Aboriginal people is to assist the applicant in: 1) assessing the Aboriginal heritage values of the area, 2) complying with conditions of development applications under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act), 3) assisting regulators in the assessment of Aboriginal heritage reports prepared for this project, 4) any future applications under Part 4, Part 5, Part 4 Division 4.7 or Part 5.2 of the EP&A Act.

Registrations of interest must be submitted in writing on or before 22 May 2020. Registrations should include the name of a contact person and relevant contact details. Send registrations of interest to:

Luddenham Quarry RRC ACHA C/o EMM Consulting Pty Ltd Attn: Pamela Chauvel PO Box 21, St Leonards NSW 1590 Email: pchauvel@emmconsulting.com.au

JOB OPPORTUNITY RECREATION ACTIVITIES OFFICER GOVERNOR PHILLIP MANOR



Are you an experienced Recreational Activity Officer or someone who has the ambition and drive to move into this role?

Are you a professional, reliable, caring person looking to make a difference for our residents through the delivery of a high quality leisure and lifestyle program then this job is for you!

As a Recreation Officer, you will ideally have some experience working with older people; have a positive attitude, lots of energy and intermediate computer skills. We are looking for someone who is innovative and prepared to bring new ideas to our comprehensive physical and cognitively stimulating recreation program and can work as part of a multidisciplinary team or autonomously.

ABOUT YOU

The ideal candidate for this role would be an experienced, motivated and enthusiastic person with a passion for the provision of high-quality services to Veterans and our older Australians and who has a positive attitude and an interest in developing their skills.

SELECTION CRITERIA

- Empathetic and caring attitude to the elderly
- Excellent communication and interpersonal skills
- Desirable CERT IV Leisure and Lifestyle
 Satisfactory National Criminal History Police Check
- Proof of Right to Work and live in Australia
- Energy, empathy and a sense of humour

For more information call 0436 811 937 or visit rsllifecare.org.au



Proficiency in written English

• Intermediate computer skills

• First aid certificate preferred

Ability to work within a team

• Current driver's licence

Time management skills

WW40772

From:	Caine Carroll <goodradigbee1@outlook.com></goodradigbee1@outlook.com>
Sent:	Friday, 8 May 2020 10:24 AM
To:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of project
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

Hi Pamela,

Trust your well in this crazy time.

Goodradigbee would like to register as a interested party for his project.

I will be the best contact and can be contacted via email or phone.

Speak soon and take care.

Kind Regards,

Caine Carroll

0410 974 236 Director Goodradigbee Cultural & Heritage Aboriginal Corporation (GCAHAC)

On 8 May 2020, at 9:39 am, Pamela Chauvel cpchauvel@emmconsulting.com.au> wrote:

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards, Pamela

Pamela Chauvel
Consultant ArchaeologistT02 9493 9500<image005.png>M0433 398 733<image005.png>D02 9493 9554

<image004.png>

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<J190749_Invitation to register.pdf>

7 May 2020



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Re: Luddenham Quarry - Notification of project

Dear Sir/Madam,

EMM Consulting Pty Ltd (EMM Heritage) has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. The precinct is located at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799), within the Liverpool City LGA.

The proponent is Coombes Property Group/KLF Holdings, and the project contacts are:

Pascal Bobillier, General Manager – Development Coombes Property Group, Coombes Property Group, Level 5, 2 Grosvenor Street Bondi Junction; T: 0488 111 787; E: pascal@coombesgroup.com.au.

John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: <u>john@klfholdings.com.au</u>.

The project is a State Significant Development (SSD) under the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP). Therefore, a development application (DA) for the project is required to be submitted under Part 4, Division 4.7 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The NSW Minister for Planning, or the Minister's delegate, is the consent authority. If applicable, the consultation process will also encompass future Aboriginal Heritage Impact Permit (AHIP) applications for the project issued under s.90 of the NSW *National Parks and Wildlife Act 1974* if certain activities are proposed outside the SSD process.

In accordance with NSW State government's *Aboriginal cultural heritage consultation requirements for proponents 2010*, key stakeholders to the region will be identified, and these individuals/organisations will be included in further consultation and participation.

As per the first stage of the NSW State government consultation guidelines I am writing to notify you of the project and seeking you and/or your organisations interest in being registered for subsequent consultation and involvement. We are interested in Aboriginal individuals and/or organisations who may hold relevant cultural knowledge for determining the Aboriginal cultural heritage of the area, and who wish to be involved in the project.

If you wish to register your interest as an Aboriginal party your registration must be in writing (letter or email). This information must be received by Pamela Chauvel (see contact details below) by close of business on **22 May 2020:**

Pamela Chauvel – EMM Consulting Pty Ltd , 20 Chandos St, St Leonards NSW 2065; T: 9493 9500; E: <u>pchauvel@emmconsulting.com.au</u>

In your response, please provide the following information:

- clear identification of the individual and/or organisation registering an interest. Please ensure all contact details and personal, along with relevant phone and e-mail is provided;
- preferred communication method (e.g. e-mail) during the consultation of this project, along with your organisation's nominated contact person and their details;
- the level of project involvement you or your organisation wishes, including attendance of meetings, fieldwork participation and/or simply reviewing documentation;
- identification on any procedures, protocols or requirements for the use and reproduction of any cultural information or materials you or your organisation provides EMM Heritage as part of this project; and
- identification of any Aboriginal objects, sites and/or areas of cultural value that you are aware of in, or near, the project area.

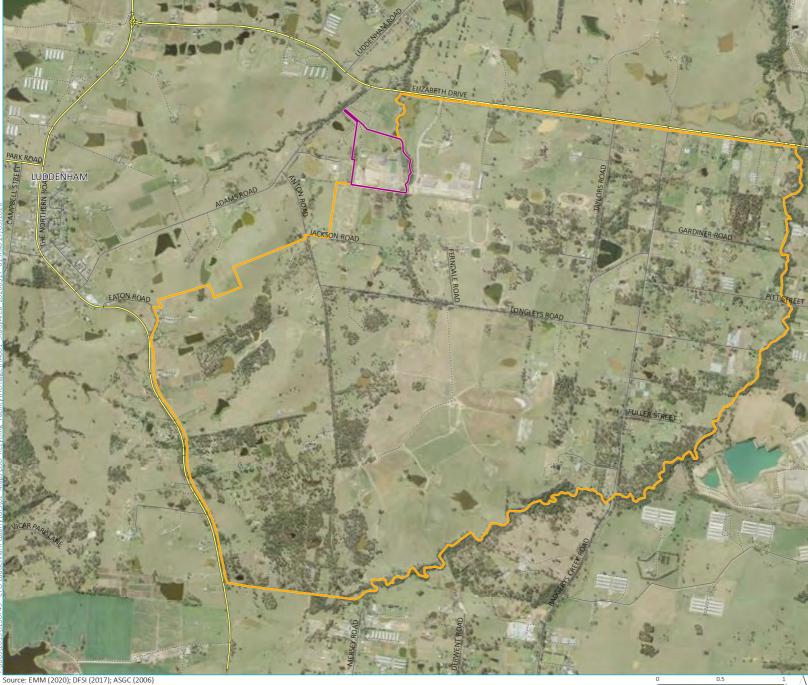
As required by the consultation guidelines, details of people registering as Aboriginal Parties will be forwarded to DPIE and the relevant Local Aboriginal Land Council unless you specify otherwise.

If you have any questions or enquiries, please don't hesitate to contact us.

Yours sincerely

and l

Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au







Location and study area

Luddenham resource recovery centre Aboriginal heritage due diligence Figure 1.1



GDA 1994 MGA Zone 56 N

From: Sent: To: Subject: Attachments:	philip khan <philipkhan.acn@live.com.au> Friday, 8 May 2020 12:10 PM Pamela Chauvel RE: Luddenham Quarry - notification of project Kamilaroi public liability insurance 2020[32545].pdf; Workers Insurance Certificate of Currency Kamilaroi 2020.pdf</philipkhan.acn@live.com.au>
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

Hi Pamela,

Thank you for informing us that **EMM Consulting** will be involved in an Aboriginal Cultural Heritage Assessment regarding the **Luddenham Quarry** &, that you are inviting Aboriginal organisations to register, if they wish too be involved in the community consultation process.

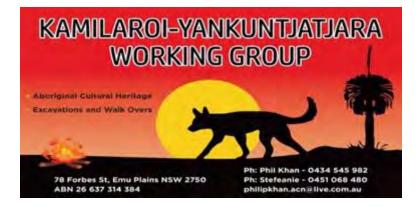
As a senior Aboriginal person for the past 40yrs, I actively participate in the protection of the Aboriginal Cultural Heritage throughout the Sydney Basin, & particularly throughout Western Sydney, on behalf of Kamilaroi Yankuntjatjara Working Group I wish to provide to you my organisation's registration of interest.

I wish to be involved & participate in all levels of consultation/project involvement. I wish to attend all meetings, participate in available field work & receive a copy of the report.

I have attached a copy of Kamilaroi Yankuntjatjara Working group's Public Liability Insurance & Workers Compensation certificate. Our rates - \$400 half a day, \$800 full day & Meetings \$100 per hour (not including GST)

Should you wish me to provide further information, please do not hesitate to contact me on 0434545982 or Stefeanie on 0451068480.

Regards Phil



From: Pamela Chauvel <pchauvel@emmconsulting.com.au> Sent: Friday, May 8, 2020 8:10:25 AM **To:** Pamela Chauvel <pchauvel@emmconsulting.com.au> **Subject:** Luddenham Quarry - notification of project

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



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From: <u>Pamela Chauvel</u> Sent: Friday, 8 May 2020 8:10 AM Subject: Luddenham Quarry - notification of project

Dear Sir/Madam,

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If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards, Pamela

Pamela Chauvel Consultant Archaeologist T 02 9493 9500 M 0433 398 733 D 02 9493 9554 Creating opportunities

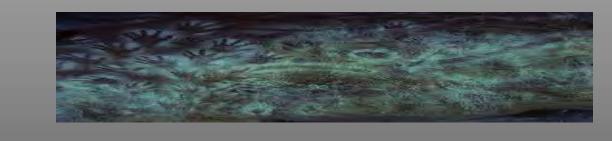
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are not the intended recipient, please notify the sender immediately and delete this email from your computer. You must not disclose, distribute, copy or use the information herein if you are not the intended recipient.

Waawaar Awaaa Aboriginal Corporation



08/05/2020

Pamela Chauvel Consultant Archaeologist

EMM Ground floor

20 Chandos Street, St Leonards NSW 2065

Dear Pamela,

Waawaar Awaaa Aboriginal Corporation comprises of Aboriginal people that have an interest, cultural connection and cultural knowledge relevant to determining the significance of Aboriginal objects and Places within the project area.

Waawaar Awaaa Aboriginal Corporation endeavours to promote Aboriginal culture to educate the broader community about Australia's Aboriginal rich diverse cultural history.

Waawaar Awaaa Aboriginal Corporation is a non- profit organisation that aims to actively support the management of Aboriginal sites, places and the natural environment and to provide employment opportunities for Aboriginal people.

Employment in cultural heritage assessments is a source of income that organisations such as ours can use to contribute to fund beneficial activities and support within the community.

Waawaar Awaaa Aboriginal Corporation has access to an Aboriginal knowledge holder, Mr Barry Gunther whom has a deep diverse understanding of traditional Aboriginal culture, NPWS Legislation and Archaeological assessments processes and procedures.

We would like to register our interest for full consultation for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry and where possible be involved in any survey and fieldwork opportunities.

Preferred correspondence is by email.

regards

Rodney Gunther Director Waawaar Awaaa Aboriginal Corporation Mobile: 0410580962 Waawaar.awaa@gmail.com

From:	Phillip Boney <waarlan12@outlook.com></waarlan12@outlook.com>
Sent:	Friday, 8 May 2020 2:10 PM
To:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of project
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

Hi Pam,

Phil here. I would like to register my interest in the Luddenham Quarry project. Thank you.

With regards, Phil Boney Wailwan Aboriginal Group

Get Outlook for iOS

From: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Sent: Friday, May 8, 2020 8:10:25 AM
To: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Subject: Luddenham Quarry - notification of project

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



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From:	Robert Slater <galamaay@hotmail.com></galamaay@hotmail.com>
Sent:	Saturday, 9 May 2020 9:51 AM
To:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of project
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

Dear Pamela

I on behalf of Galamaay Cultural Consultants would like to register for this project.

We wish to be involved in all aspects of this project.

Regards Robert Slater Galamaay Cultural Consultants

From: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Sent: Friday, 8 May 2020 8:10 AM
To: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Subject: Luddenham Quarry - notification of project

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards, Pamela



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From:Information Officer <informationofficer@tharawal.com.au>Sent:Tuesday, 19 May 2020 9:46 AMTo:Pamela ChauvelSubject:RE: Luddenham Quarry - notification of project

Good morning

Thank you for your email in relation to the Luddenham Quarry project, unfortunately this is not within Tharawal LALC boundaries therefore will not be registering our interest. We look forward to hearing from you in the future.

Regards

Yours in Unity Rebecca JARVIS information Officer Tharawal Local Aboriginal Land Council 220 West Parade Couridjah NSW 2571 T: (02) 46810059 Informationofficer@tharawal.com.au



I acknowledge and pay my respects to the traditional custodians of the land on which I work and live. I pay my respects to my Elders both past and present and thank them for their leadership, guidance and knowledge.

From: Pamela Chauvel <<u>pchauvel@emmconsulting.com.au</u>> Sent: Friday, 8 May 2020 8:10 AM To: Pamela Chauvel <<u>pchauvel@emmconsulting.com.au</u>> Subject: Luddenham Quarry - notification of project

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards, Pamela

Pamela Chauvel Consultant Archaeologist



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M 0433 398 733
D 02 9493 9554
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Cubbitch Barta Native Title Claimants Aboriginal Corporation 55 Nightingale Road, PHEASANTS NEST. N.S.W. 2574 12th May, 2020

EMM P.O. Box 21 ST.LEONARDS. N.S.W. 1590

Dear Pamela,

RE; LUDDENHAM QUARRY

I wish to register an interest in the Luddenham Quarry project, as per the letter dated 8th May, which was received today, for Cubbitch Barta.

The nominated contact person is myself Glenda Chalker and all relevant contacts are on this letter. E mail is fine for general correspondence, however I do request reports in hard copy.

We wish to be involved in all levels, including meetings, fieldwork, as well as reviewing documents. Certainly the biggest project taking place at the moment is the Badgery's Creek airport, with large scale salvaging taking place, which will, as well as destroying, give a lot of information to the area.

There is no issue in giving our name to Gandangarra LALC.

Yours faithfully,

G. Chalbai.

Glenda Chalker Phone/Fax 0246841129 0427218425 kgchalker@bigpond.com

From:	Lee Field <barrabyculturalservices@gmail.com></barrabyculturalservices@gmail.com>
Sent:	Monday, 18 May 2020 10:31 AM
То:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of project

Dear Pamela

I Lee Field on behalf of Barraby Cultural Services would like to register our interest in this project.Barraby would like to be involved in all aspects of the project.I am the point of contact for Barraby and if you need any more information please contact me on the details below.

Kind Regards Lee Field Barraby Cultural Services 10B Elphin Street, Tahmoor NSW 2573 0431 314 892 barrabyculturalservices@gmail.com

> On 8 May 2020, at 8:10 am, Pamela Chauvel <pchauvel@emmconsulting.com.au> wrote:

>

> <J190749_Invitation to register.pdf>

From:	yurrandaali_cs@hotmail.com
Sent:	Monday, 18 May 2020 1:10 PM
To:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of project
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

Dear Pamela

Yurrandaali Pty Ltd would like to register for this project.

We would like to be involved in all aspects of this project.

Thanks Bo Field Yurrandaali Pty Ltd 10b elphin st Tahmoor NSW 2573 0403 048 263

On 8 May 2020 8:10 am, Pamela Chauvel chauvel@emmconsulting.com.au> wrote:

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards,

Pamela

Pamela Chauvel

Consultant Archaeologist

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- T 02 9493 9500
- M 0433 398 733
- D 02 9493 9554

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From:	Vicky slater <wurrumay@hotmail.com></wurrumay@hotmail.com>
Sent:	Thursday, 21 May 2020 3:14 PM
То:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of project

Dear Pamela

Wurrumay Pty Ltd would like to register an interest for the project. Our Company consists of family elders & Knowledge of Country within our pathways n Songlines & Connection to Country.

Experienced indigenous Site Officer's with the understanding if our Culture Values & The Significance of our Heritage.

Current Insurances

Kind Regards

Vicky Slater Manager

Wurrumay Pty Ltd 89 Pyramid Street Emu Plains NSW.2750.

M: 0421077521

On 8 May 2020 8:10 am, Pamela Chauvel chauvel@emmconsulting.com.au> wrote:

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards,

Pamela

×

Consultant Archaeologist

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M 0433 398 733

D 02 9493 9554

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From:	Arika Jalomaki <yulayculturalservices@gmail.com></yulayculturalservices@gmail.com>
Sent:	Thursday, 21 May 2020 8:57 AM
To:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of project
Follow Up Flag:	Follow up
Flag Status:	Completed

Dear Pamela,

Yulay Cultural service's would like to register our interest in the Luddenham Quarry project and would like to be involved in all aspects of the project. Contact person is Arika Jalomaki mobile number 0411048794 and email <u>yulayculturalservices@gmail.com</u> preferred method of contact via email.

Kind regards, Arika Jalomaki

On Fri, 8 May 2020 at 8:10 am, Pamela Chauvel <<u>pchauvel@emmconsulting.com.au</u>> wrote:

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards,

Pamela

Pamela Chauvel Consultant Archaeologist





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Arika Jalomaki

BUTUCARBIN ABORIGINAL CORPORATION



PO Box E18, Emerton NSW 2770 28 Pringle Road, Hebersham NSW 2770 Ph: 9832 7167 Fax: 9832 7263 koori@ozemail.com.au ABN: 83 535 742 276

22nd May, 2019

To whom it may concern,

Please see information in relation to Butucarbin below.

Cultural Connection and Representation

Butucarbin Aboriginal Corporation is a successful not for profit community organisation that was established in 1989 to provide Community Development, Education and Training to organisations and individuals in the Blacktown and Penrith LGA's of Western Sydney. The organisation has won many awards for outstanding service delivery over the past 23 years. The latest being our Executive Officer Jennifer Beale being a finalist in the 2014 NSW Australian of the Year awards.

Due to the changes in funding, for Aboriginal organisations and for Butucarbin to continue the service that they have been providing, the organisation has developed an Aboriginal Cultural Heritage Assessment business. All profits go back into the organisation to provide services to the community. As community workers we believe it is our duty to involve the Aboriginal community of Western Sydney in this work, as it enables the community to learn about cultural heritage and also enables archaeologists to gain different perspectives into Aboriginal Culture.

Butucarbin in itself is a modern example of cultural heritage in that it is a product of the 1970's resettlement program and self-determination policy (see, Aboriginal Community Controlled Organisations). Due to this resettlement policy there are generations of Aboriginal people who have been born in Western Sydney and have been raised in the Mount Druitt Community (which has the highest Aboriginal urban population in Australia) and thus, this is where their connection lies. Ultimately, our cultural connection lies in our community work and assistance to the people of wider Western Sydney.

In conclusion, we also believe it is essential to pass on knowledge from generation to generation. Butucarbin provides cultural knowledge to the wider community through Aboriginal Cultural workshops and community development programs.

Previous experience

We have participated in projects with such companies as, Extent, Niche, Kelleher Nightingale, Artefact, AMBS, Virtus Heritage, Navin Officer, Curio and Biosis. This work has involved activities such as, site-walkovers, surface collections, ACHA reviews and excavations.

When on site, our workers were on time, professional and participate in all tasks set for them. It is essential for our community members to participate in Aboriginal Community Consultations and other cultural work as we believe it is of the utmost importance that cultural heritage skills and knowledge are passed on to our younger Aboriginal generations.

Overall, our team is highly skilled and has over ten years' experience in cultural heritage assessment field work. Currently, our team consists of several skilled field officers. We ensure there is diversity amongst our workers in that we do not discriminate against gender and age. In fact, we strongly encourage the employment of individuals of all ages as it is essential to gain insight into cultural heritage from varying age groups.

In the event Butucarbin is selected for fieldwork, please consider our consultancy rates.

Ultimately, Butucarbin can negotiate fees however, our standard fee is \$120 per hour. Longer-term projects, those lasting over two months, may be subject to a reduced fee.

Schedule of Rates

Our rates are as follows:

Meetings/site inspections: \$400+GST Fieldwork: \$120.00 per hour Perusal and comment of reports: \$120.00 per hour Mileage Allowance: 0.75 cents per kilometre

If you require further information, we have attached our flyer and web page <u>www.butucarbin.org.au</u> and we are also on Facebook. We would appreciate the opportunity to tender for any Aboriginal cultural heritage assessments you may have coming up in the future. You can contact Jennifer Beale on 0409924409 or Lowanna Gibson on 0458537666.

Yours Sincerely,

Lowanna Gibson **Project Manager for Butucarbin Cultural Heritage and Assessment** B.A Archaeology/Anthropology USYD Juris Doctor Candidate UTS

From:	Wendy Morgan <wenlissa01@hotmail.com></wenlissa01@hotmail.com>
Sent:	Friday, 22 May 2020 5:15 PM
To:	Pamela Chauvel
Cc:	Brad Maybury
Subject:	RE: Luddenham Quarry - notification of project
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

Hi Pamela,

Guntawang Aboriginal Resources Inc would like to express and interest in the ACHA proposed for the Resource Recovery Centre at Luddenham Quarry.

Kind regards

Wendy Morgan CEO GARI 0414 964 657

Sent from Mail for Windows 10

From: Pamela Chauvel Sent: Friday, 8 May 2020 8:10 AM To: Pamela Chauvel Subject: Luddenham Quarry - notification of project

Dear Sir/Madam,

I'm writing to notify you that EMM Consulting has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. Details about the project are in the attached letter.

If you wish to register your interest for Aboriginal consultation, please notify me in writing by 22 May 2020.

Kind regards, Pamela

Pamela Chauvel Consultant Archaeologist T 02 9493 9500 M 0433 398 733 D 02 9493 9554 Creating opportunities

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From: Sent: To: Subject:

Follow Up Flag: Flag Status: Carolyn .H <cazadirect@live.com> Sunday, 24 May 2020 5:46 PM Pamela Chauvel Re: Luddenham Quarry - notification of project

Flag for follow up Completed



Contact: Carolyn Hickey M: 0411650057 E: Cazadirect@live.com A: 10 Marie Pitt Place, Glenmore Park, NSW 2745 ACN: 639 868 876

Hi Pamela,

Please excuse the late registration, Iv been a little under the weather and unable to work. I would like to register for consultation, field work and Meetings, I hold cultural knowledge relevant to determining the cultural significance of any Aboriginal objects and values that exist within the project area.

Preferred contact ; Email Kind Regards, Carolyn Hickey



From: Pamela Chauvel <pchauvel@emmconsulting.com.au> Sent: Friday, 8 May 2020 8:10 AM To: Pamela Chauvel <pchauvel@emmconsulting.com.au> Subject: Luddenham Quarry - notification of project Dear Sir/Madam,

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Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



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DARUG CUSTODIAN ABORIGINAL CORPORATION

PO BOX 81 WINDSOR 2756 PHONE: 0245775181 FAX: 0245775098 MOBILE: 0414962766 Justine Coplin EMAIL: justinecoplin@optusnet.com.au

Attention: EMM

Date: 25/05 /2020

Subject: Resource Recovery Centre at Luddenham Quarry.

Dear Pamela

Our group is a non- profit organisation that has been active for over forty years in Western Sydney, we are a Darug community group with over three hundred members. The main aim in our constitution is the care of Darug sites, places, wildlife and to promote our culture and provide education on the Darug history.

Our group promotes Darug Culture and works on numerous projects that are culturally based as a proud and diverse group. It has been discussed by our group and with many consultants and researches that our history is generic and is usually from an early colonists perspective or solely based on archaeology and sites. These histories are adequate but they lack the people's stories and parts of important events and connections of the Darug people and also other Aboriginal people that now call this area home and have done so for numerous generations.

Knowledge of culture, lifestyle and lore have been part of Darug people's lives for thousands of years, this was passed down to the next generations and this started with birth and continued for a lifetime. Darug people spent a lifetime learning and as people grew older they passed through stages of knowledge, elders became elders with the learning of stages of knowledge not by their age, being an elder is part of the kinship system this was a very complicated system based on respect.

Darug custodian Aboriginal Corporation's site officers have knowledge of Darug land, Darug Culture, Oral histories, landforms, sites, Darug history, wildlife, flora and legislative

requirements. We have worked with consultants and developers for many years in Western Sydney (Darug Land) for conservation, site works, developments and interpretation/education strategies.

Darug sites are all connected, our country has a complex of sites that hold our heritage and past history, evidence of the Darug lifestyle and occupation are all across our country, due to the rapid development of Sydney many of our sites have been destroyed, our sites are thousands of years old and within the short period of time that Australia has been developed pre contact our sites have disappeared.

Site types in Darug country are predominately artefact scatters, rock shelters, rock escarpments, scarred trees, carved trees, bora rings, engravings, art, landforms, waterways and burials. All across Darug country there is a continuation of sites, the predictive modelling for the Cumberland plain shows that the concentration of sites is near waterways, investigation of sites have shown that the higher concentration is predominately within 50 metres of permanent water although evidence also shows that sites are in areas away from permanent water on all landforms. The sites that are low density or single materials are as important as the higher density sites as they show us the connection and the movement of people across the country.

The Parramatta /harris Park area is an areas that our group has a vast knowledge of, we have worked and lived in for many years, this area is significant to the Darug people due to the connection of sites and the continued occupation. Our group has been involved in all previous assessments and works in this area as a traditional owner Darug group for the past 40 plus years.

Therefore, we would like to register our interest for full consultation and involvement in the above project area.

Please contact us with all further enquiries on the above contacts.

Regards

Justine Coplin

We acknowledge and pay respect to the Darug people, the traditional Aboriginal custodians of this land.

ela Chauvel
nday, 25 May 2020 9:05 AM
ch@environment.nsw.gov.au
fication of registered Aboriginal parties - Luddenham Quarry, Resource
overy Centre
00525_NotificationDPIE.pdf

Dear Susan,

Please find attached a letter notifying DPIE of the Aboriginal parties who have registered for consultation on the Luddenham Quarry RRC.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



T 02 9493 9500
M 0433 398 733
D 02 9493 9554
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From:	Pamela Chauvel
Sent:	Monday, 25 May 2020 9:08 AM
То:	DDuncan@glalc.org.au
Cc:	RSheridan@glalc.org.au
Subject:	Notification of registered Aboriginal parties - Luddenham Quarry, Resource
	Recovery Centre
Attachments:	20200525_NotificationGLALC.pdf

Dear Duncan and Ruth,

Please find attached a letter notifying Gandangara LALC of the Aboriginal parties who have registered for consultation on the Luddenham Quarry RRC.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



T 02 9493 9500
M 0433 398 733
D 02 9493 9554
Connect with us

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25 May 2020



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Susan Harrison Senior Team Leader Planning Department of Planning Industry and Environment Greater Sydney Branch Environment, Energy and Science PO Box 644 Parramatta NSW 2150

Re: Registered Aboriginal Parties for the Luddenham Quarry RRC ACHA

Dear Ms Harrison,

In accordance with section 4.1.6 of the *Aboriginal cultural heritage consultation requirements for proponents* (DECCW 2010) the Department of Planning, Industry and Environment is hereby notified that a total of 16 parties registered for consultation regarding the Aboriginal cultural heritage assessment for the proposed Resource Recovery Centre at Luddenham Quarry.

As per the consultation requirements, the Registered Aboriginal Parties can be found in Table 1 and the forms of notification are attached to this letter.

Table 1 List of Registered Aboriginal Parties for the Luddenham Quarry ACHA

Organisation	Contact
Gandangara Local Aboriginal Lands Council	Darren Duncan
Didge Ngunawal Clan	Paul Boyd / Lilly Carroll
Goodradigbee	Caine Carroll
Kamilaroi-Yankuntjatjara Working Group	Philip Khan
Wailwan Aboriginal Group	Phil Boney
Waawaar Awaaa Aboriginal Corporation	Rodney Gunther
Dharug Ngurra Aboriginal Corporation	Corina
Galamaay	Robert Slater
Cubbitch Barta	Glenda Chalker
Barraby Cultural Services	Lee Field
Yurrandaali	Bo Field
Yulay	Arika Jalomaki
Wurrumay	Vicky Slater
Butucarbin Heritage	Lowanna Gibson
Guntawang Aboriginal Resources	Wendy Morgan
A1 Indigenous Services	Carolyn Hickey

Yours sincerely

Phanvel

Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au

7 May 2020



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Re: Luddenham Quarry - Notification of project

Dear Sir/Madam,

EMM Consulting Pty Ltd (EMM Heritage) has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. The precinct is located at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799), within the Liverpool City LGA.

The proponent is Coombes Property Group/KLF Holdings, and the project contacts are:

Pascal Bobillier, General Manager – Development Coombes Property Group, Coombes Property Group, Level 5, 2 Grosvenor Street Bondi Junction; T: 0488 111 787; E: pascal@coombesgroup.com.au.

John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: john@klfholdings.com.au.

The project is a State Significant Development (SSD) under the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP). Therefore, a development application (DA) for the project is required to be submitted under Part 4, Division 4.7 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The NSW Minister for Planning, or the Minister's delegate, is the consent authority. If applicable, the consultation process will also encompass future Aboriginal Heritage Impact Permit (AHIP) applications for the project issued under s.90 of the NSW *National Parks and Wildlife Act 1974* if certain activities are proposed outside the SSD process.

In accordance with NSW State government's *Aboriginal cultural heritage consultation requirements for proponents 2010*, key stakeholders to the region will be identified, and these individuals/organisations will be included in further consultation and participation.

As per the first stage of the NSW State government consultation guidelines I am writing to notify you of the project and seeking you and/or your organisations interest in being registered for subsequent consultation and involvement. We are interested in Aboriginal individuals and/or organisations who may hold relevant cultural knowledge for determining the Aboriginal cultural heritage of the area, and who wish to be involved in the project.

If you wish to register your interest as an Aboriginal party your registration must be in writing (letter or email). This information must be received by Pamela Chauvel (see contact details below) by close of business on **22 May 2020:**

Pamela Chauvel – EMM Consulting Pty Ltd , 20 Chandos St, St Leonards NSW 2065; T: 9493 9500; E: <u>pchauvel@emmconsulting.com.au</u>

In your response, please provide the following information:

- clear identification of the individual and/or organisation registering an interest. Please ensure all contact details and personal, along with relevant phone and e-mail is provided;
- preferred communication method (e.g. e-mail) during the consultation of this project, along with your organisation's nominated contact person and their details;
- the level of project involvement you or your organisation wishes, including attendance of meetings, fieldwork participation and/or simply reviewing documentation;
- identification on any procedures, protocols or requirements for the use and reproduction of any cultural information or materials you or your organisation provides EMM Heritage as part of this project; and
- identification of any Aboriginal objects, sites and/or areas of cultural value that you are aware of in, or near, the project area.

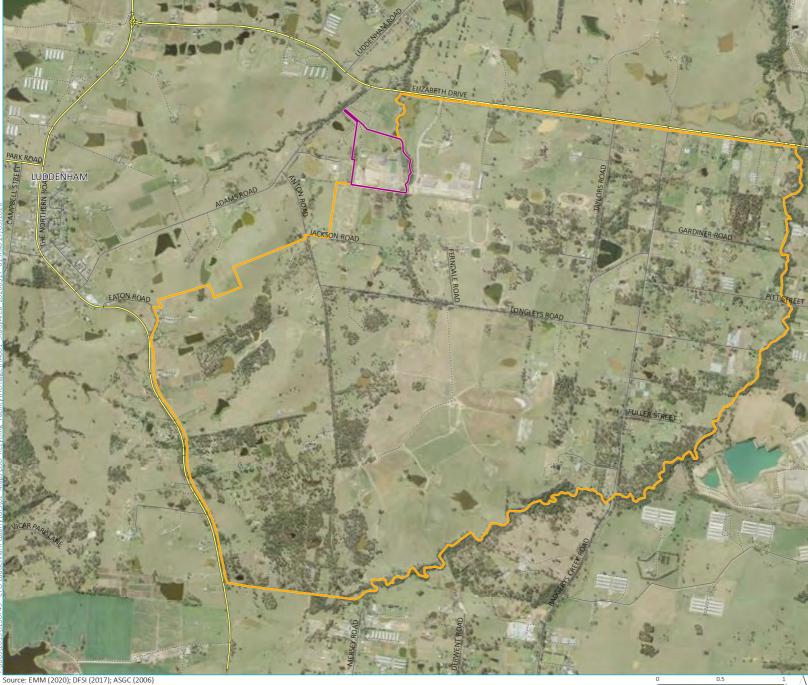
As required by the consultation guidelines, details of people registering as Aboriginal Parties will be forwarded to DPIE and the relevant Local Aboriginal Land Council unless you specify otherwise.

If you have any questions or enquiries, please don't hesitate to contact us.

Yours sincerely

and l

Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au







Location and study area

Luddenham resource recovery centre Aboriginal heritage due diligence Figure 1.1



GDA 1994 MGA Zone 56 N

Invitation for Registrations of Interest ABORIGINAL CULTURAL HERITAGE ASSESSMENT Luddenham Quarry, Liverpool LGA

Coombes Property Group/KLF Holdings are proposing to construct and operate a Resource Recovery Centre (RRC) at Luddenham Quarry, 275 Adams Road, Luddenham NSW.

Aboriginal organisations or Aboriginal persons who hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or Aboriginal places in the area of the proposal are invited to register an interest in a process of community consultation with the proponent regarding the proposal.

Proponent contacts for the project are: Pascal Bobillier, Coombes Property Group, **T: 0488 111 787**; **E: pascal@coombesgroup.com. au**; and John Scarlis, KLF Holdings Ltd, **T: 0424 731 495; E: john@ klfholdings.com.au**

The purpose of community consultation with Aboriginal people is to assist the applicant in: 1) assessing the Aboriginal heritage values of the area, 2) complying with conditions of development applications under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act), 3) assisting regulators in the assessment of Aboriginal heritage reports prepared for this project, 4) any future applications under Part 4, Part 5, Part 4 Division 4.7 or Part 5.2 of the EP&A Act.

Registrations of interest must be submitted in writing on or before 22 May 2020. Registrations should include the name of a contact person and relevant contact details. Send registrations of interest to:

Luddenham Quarry RRC ACHA

C/o EMM Consulting Pty Ltd Attn: Pamela Chauvel PO Box 21, St Leonards NSW 1590 Email: pchauvel@emmconsulting.com.au 25 May 2020



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Gandangara Local Aboriginal land Council PO Box 1038 Liverpool NSW 2170

Re: **Registered Aboriginal Parties for the Luddenham Quarry RRC ACHA**

Dear Sir/Madam,

In accordance with section 4.1.6 of the Aboriginal cultural heritage consultation requirements for proponents (DECCW 2010) the Gandangara Local Aboriginal Land Council is hereby notified that a total of 16 parties registered for consultation regarding the Aboriginal cultural heritage assessment for the proposed Resource Recovery Centre at Luddenham Quarry.

As per the consultation requirements, the Registered Aboriginal Parties can be found in Table 1 and the forms of notification are attached to this letter.

Organisation	Contact	
Gandangara Local Aboriginal Lands Council	Darren Duncan	
Didge Ngunawal Clan	Paul Boyd / Lilly Carroll	
Cooduadiahaa	Coine Cornell	

Table 1 List of Registered Aboriginal Parties for the Luddenham Quarry ACHA

Gandangara Local Aboriginal Lands Council	Darren Duncan
Didge Ngunawal Clan	Paul Boyd / Lilly Carroll
Goodradigbee	Caine Carroll
Kamilaroi-Yankuntjatjara Working Group	Philip Khan
Wailwan Aboriginal Group	Phil Boney
Waawaar Awaaa Aboriginal Corporation	Rodney Gunther
Dharug Ngurra Aboriginal Corporation	Corina
Galamaay	Robert Slater
Cubbitch Barta	Glenda Chalker
Barraby Cultural Services	Lee Field
Yurrandaali	Bo Field
Yulay	Arika Jalomaki
Wurrumay	Vicky Slater
Butucarbin Heritage	Lowanna Gibson
Guntawang Aboriginal Resources	Wendy Morgan
A1 Indigenous Services	Carolyn Hickey

Yours sincerely

Phannel

Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au

7 May 2020



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Re: Luddenham Quarry - Notification of project

Dear Sir/Madam,

EMM Consulting Pty Ltd (EMM Heritage) has been commissioned by Coombes Property Group/KLF Holdings to undertake an Aboriginal Cultural Heritage Assessment (ACHA) for the proposed construction and operation of a Resource Recovery Centre at Luddenham Quarry. The precinct is located at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799), within the Liverpool City LGA.

The proponent is Coombes Property Group/KLF Holdings, and the project contacts are:

Pascal Bobillier, General Manager – Development Coombes Property Group, Coombes Property Group, Level 5, 2 Grosvenor Street Bondi Junction; T: 0488 111 787; E: pascal@coombesgroup.com.au.

John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: <u>john@klfholdings.com.au</u>.

The project is a State Significant Development (SSD) under the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP). Therefore, a development application (DA) for the project is required to be submitted under Part 4, Division 4.7 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The NSW Minister for Planning, or the Minister's delegate, is the consent authority. If applicable, the consultation process will also encompass future Aboriginal Heritage Impact Permit (AHIP) applications for the project issued under s.90 of the NSW *National Parks and Wildlife Act 1974* if certain activities are proposed outside the SSD process.

In accordance with NSW State government's *Aboriginal cultural heritage consultation requirements for proponents 2010*, key stakeholders to the region will be identified, and these individuals/organisations will be included in further consultation and participation.

As per the first stage of the NSW State government consultation guidelines I am writing to notify you of the project and seeking you and/or your organisations interest in being registered for subsequent consultation and involvement. We are interested in Aboriginal individuals and/or organisations who may hold relevant cultural knowledge for determining the Aboriginal cultural heritage of the area, and who wish to be involved in the project.

If you wish to register your interest as an Aboriginal party your registration must be in writing (letter or email). This information must be received by Pamela Chauvel (see contact details below) by close of business on **22 May 2020:**

Pamela Chauvel – EMM Consulting Pty Ltd , 20 Chandos St, St Leonards NSW 2065; T: 9493 9500; E: <u>pchauvel@emmconsulting.com.au</u>

In your response, please provide the following information:

- clear identification of the individual and/or organisation registering an interest. Please ensure all contact details and personal, along with relevant phone and e-mail is provided;
- preferred communication method (e.g. e-mail) during the consultation of this project, along with your organisation's nominated contact person and their details;
- the level of project involvement you or your organisation wishes, including attendance of meetings, fieldwork participation and/or simply reviewing documentation;
- identification on any procedures, protocols or requirements for the use and reproduction of any cultural information or materials you or your organisation provides EMM Heritage as part of this project; and
- identification of any Aboriginal objects, sites and/or areas of cultural value that you are aware of in, or near, the project area.

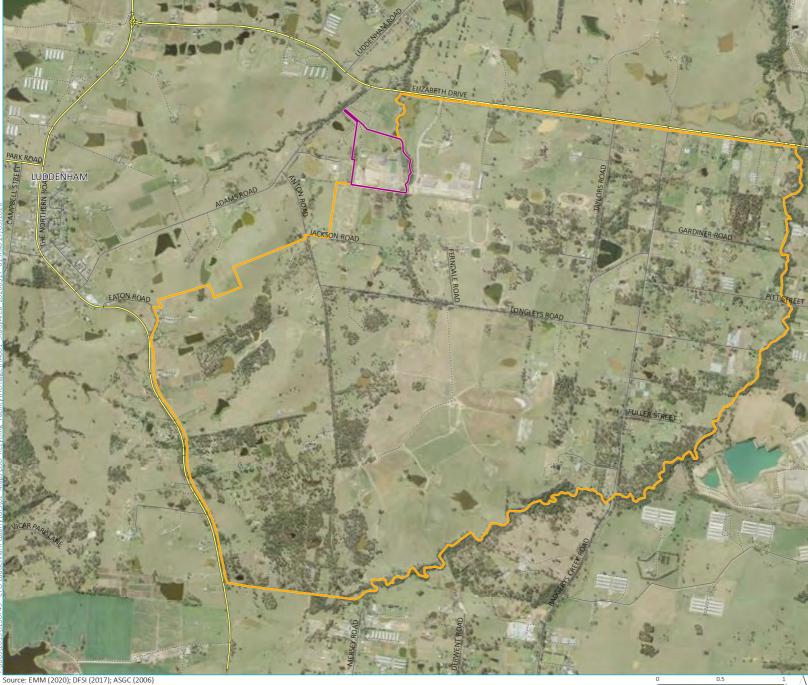
As required by the consultation guidelines, details of people registering as Aboriginal Parties will be forwarded to DPIE and the relevant Local Aboriginal Land Council unless you specify otherwise.

If you have any questions or enquiries, please don't hesitate to contact us.

Yours sincerely

and l

Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au







Location and study area

Luddenham resource recovery centre Aboriginal heritage due diligence Figure 1.1



GDA 1994 MGA Zone 56 N

Invitation for Registrations of Interest ABORIGINAL CULTURAL HERITAGE ASSESSMENT Luddenham Quarry, Liverpool LGA

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Aboriginal organisations or Aboriginal persons who hold cultural knowledge relevant to determining the significance of Aboriginal objects and/or Aboriginal places in the area of the proposal are invited to register an interest in a process of community consultation with the proponent regarding the proposal.

Proponent contacts for the project are: Pascal Bobillier, Coombes Property Group, **T: 0488 111 787**; **E: pascal@coombesgroup.com. au**; and John Scarlis, KLF Holdings Ltd, **T: 0424 731 495; E: john@ klfholdings.com.au**

The purpose of community consultation with Aboriginal people is to assist the applicant in: 1) assessing the Aboriginal heritage values of the area, 2) complying with conditions of development applications under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act), 3) assisting regulators in the assessment of Aboriginal heritage reports prepared for this project, 4) any future applications under Part 4, Part 5, Part 4 Division 4.7 or Part 5.2 of the EP&A Act.

Registrations of interest must be submitted in writing on or before 22 May 2020. Registrations should include the name of a contact person and relevant contact details. Send registrations of interest to:

Luddenham Quarry RRC ACHA

C/o EMM Consulting Pty Ltd Attn: Pamela Chauvel PO Box 21, St Leonards NSW 1590 Email: pchauvel@emmconsulting.com.au

From: Sent: To: Subject: Attachments:	Norma Burrows <burrowsn@liverpool.nsw.gov.au> Thursday, 28 May 2020 1:21 PM Pamela Chauvel Luddenham Quarry Resource Centre ACHA - Aboriginal Stakeholders List TRIM 1055002020 Luddenham Quarry Resource Recovery Centre Aboriginal cultural heritage assessment (ACHA).docx</burrowsn@liverpool.nsw.gov.au>
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

Good afternoon Ms Chauvel

As requested please find attached a list of Aboriginal Stakeholders that may in interested in the proposed Aboriginal Cultural Heritage Assessment (ACHA). Please note: Council Aboriginal Consultative Committee is on the list, however members will only be comment on methodology, reports and final resting place if artefacts are found on the site in question.

Thank you

Norma Burrows Community Development Worker ATSI



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CEO and Chairperson	Deerubbin LALC	(02) 4724 5600 3/291-295 High street Penrith NSW
	Darug Tribal Aboriginal Corporation	PO Box 441 BLACKTOWN NSW 2148
Brad Maybery	Guntawang Aboriginal Resources Aboriginal	Wendy Morgan < <u>wenlissa01@hotmail.com</u> >
Leanne Watson	Darug Custodial Aboriginal Corporation	PO Box 81 WINDSOR NSW 2756
Gordon Morton	Durag Aboriginal Cultural Heritage Assessments	90 Hermitage Road KURRAJONG HILLS NSW 2758 0422 865 831
Celestine Everingham	Darug Aboriginal Cultural Heritage Assessments	90 Hermitage Road KURRAJONG HILLS NSW 2758
Gordon Workman	Durag Land Observations	PO Box 571 PLUMPTON NSW 2761 0420 591 138 daruglandobservations@gmail.com
Glenda Chalker	Cubbitch Barta Native Title Claimants Aboriginal Corporation	55 Nightingale Road PHEASANTS NEST NSW 2847
Cherie Carrol Turrise	Gunjeewong Aboriginal Cultural Heritage Corporation	1 Bellevue Place PORTLAND NSW 2847 0457 920 198
Norma Burrows	Aboriginal Consultative Committee	Burrowsn@liverpool.nsw.gov.au 1300 362170 Norma Burrows Community Development and Planning Department, Liverpool City Council
		33 Moore Street, Liverpool

C.3 Stages 2 and 3 – presentation of information and gathering cultural information

This section contains the following documents:

- project information and draft assessment methodology letter;
- test excavation email (see Appendix D for the letter); and
- notification to Heritage NSW of test excavation.

From:	Pamela Chauvel
Sent:	Friday, 22 May 2020 4:59 PM
То:	Ryan Desic
Subject:	Luddenham Quarry - project information, assessment methods and request for cultural information
Attachments:	J190749_Stage 2 letter.pdf

Dear Registered Party,

Thank you for registering your interest in being consulted in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Resource Recovery Centre at Luddenham Quarry. Please find attached to this email, a letter outlining the project and proposed assessment methods, and providing your party with an opportunity to inform EMM about any Aboriginal cultural heritage values associated with the project.

Please provide any written responses by 19 June 2020.

Pamela Chauvel

Consultant Archaeologist



T 02 9493 9500
M 0433 398 733
D 02 9493 9554
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22 May 2020



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

Re: Luddenham Quarry - project information, assessment methods and request for cultural information

Dear Sir/Madam,

1 Introduction

Thank you for registering your interest in being consulted in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Resource Recovery Centre at Luddenham Quarry (the project). EMM Consulting Pty Ltd (EMM) is preparing the ACHA for Coombes Property Group/KLF Holdings.

The aims of this letter are to:

- provide an overview of the project and approval pathways;
- establish the purpose and aims of the Aboriginal consultation process;
- provide your party with an opportunity to inform EMM Heritage about any Aboriginal cultural heritage values associated with the project and how they may affect, inform or refine the project and/or assessment methods;
- identify any culturally appropriate protocols that registered parties wish to be adopted during the information gathering process (eg protocols during field survey, or handling of culturally sensitive information); and
- present a draft of the intended ACHA methods for your review and comment.

This document is provided in accordance with sections 4.2 and 4.3 of the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010,* which sets out the Aboriginal consultation requirements for the project.

We welcome your written feedback at your earliest convenience, and no later than **19 June 2020.** At this stage, we propose to conduct all consultation via e-mail, phone and/or face-to-face meeting, but can modify this following feedback from your organisation. Comments can be provided to:

Pamela Chauvel Address: PO Box 21, St Leonards, NSW 1590 Phone: 02 9493 9500 Email: <u>pchauvel@emmconsulting.com.au</u>

2 Project information

2.1 Proponent details and approval pathways

The proponent is Coombes Property Group/KLF Holdings, and the project contacts are:

Pascal Bobillier, General Manager – Development Coombes Property Group, Coombes Property Group, Level 5, 2 Grosvenor Street Bondi Junction; T: 0488 111 787; E: pascal@coombesgroup.com.au.

John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: john@klfholdings.com.au.

The project is a State Significant Development (SSD) under the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP). Therefore, a development application (DA) for the project is required to be submitted under Part 4, Division 4.7 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). The NSW Minister for Planning, or the Minister's delegate, is the consent authority.

As required for SSD projects, the EIS (including the ACHA) will be prepared in accordance with the Secretary's Environmental Assessment Requirements (SEARs). SEARs for cultural heritage include the requirement for an ACHA to be prepared for the project. The abovementioned assessment pathway means that an Aboriginal heritage impact permit (AHIP) is not required for the project during the environmental assessment or for development consent. If the project is approved, any Aboriginal objects and/or places affected by the project would be managed under an Aboriginal Heritage Management Plan (AHMP), following endorsement by the NSW Department of Planning, Industry and Environment (DPIE).

2.2 Background

Coombes Property Group (CPG) in partnership with KLF Holdings Pty Ltd (KLF) are seeking development consent for the construction and operation of a Resource Recovery Centre (RRC) at 275 Adams Road, Luddenham NSW (Lot 3, DP 623799) (Figure 1.1). The study area shares its southern and eastern boundaries with the Western Sydney Airport development site. There is an existing clay/shale quarry on the subject property approved under DA 315-7-2003 as modified. The quarry is currently inactive. It is proposed to develop the project in an area to the north of the existing quarry footprint. The project application area is illustrated in Figure 1.2.

EMM has been engaged by CPG and KLF to prepare an ACHA to support the SSD application and to address specific requirements provided in the SEARs issued on 24 April 2020. The ACHA will assess the potential impact of project footprint on Aboriginal cultural heritage values and present appropriate management measures if required.

2.2.1 Aboriginal sites within the study area

A search of the AHIMS database on 20 January 2020, identified one registered AHIMS site within the study area. Oaky Creek 1 (#45-5-2280) is a medium density artefact scatter beside Oaky Creek, that was identified in 1991 and is currently fenced off and protected (refer Figure 3.1).

2.2.2 Results of due diligence assessment

In accordance with the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (DECCW 2010), a due diligence assessment in accordance with the Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW (DECCW 2010) has been completed by EMM as a first step to identify whether Aboriginal objects or places are likely to be harmed by the project. The due diligence assessment

found that the study area has been subject to a high level of disturbance and it is unlikely for Aboriginal objects to occur within the study area apart from the area beside Oaky Creek. The AHIMS site within the study area (#45-5-2280) is outside the area likely to be impacted by the proposed development and is currently protected by fencing.

Specifically, the proposed location for the RRC, including upgraded access road, is in the northern part of the study area. This area is currently a cleared paddock sown with exotic grasses and a small grove of young trees (Figure 2). Prior to the 1990s, the land was used to grow turf, an activity that would have resulted in topsoil stripping and subsequent loss of potential archaeological deposit in the upper soil stratum. The project disturbance activities will be located to the west of Oaky Creek. At its closest point it will be 100 metres (m) from the creek. The land around Oaky Creek has been subject to land clearance, introduced fill and the construction of dams resulting in a much narrower area (~50 m wide) of relatively undisturbed land with moderate archaeological potential.

Although the due diligence assessment found that Aboriginal objects were unlikely to occur in the area, EMM have proceeded with preparing an ACHA to form a more robust assessment in consultation with the Aboriginal community and to address SEARs issued by DPIE.





KEY

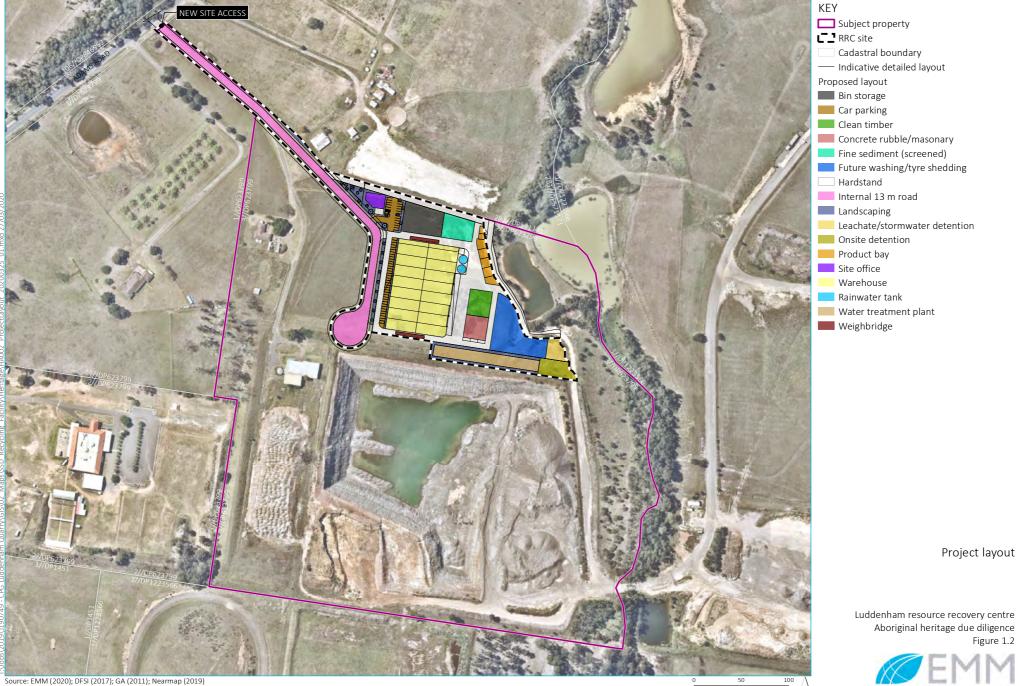
- Subject property
- Uestern sydney airport
- Major road
- Minor road
- ······ Vehicular track
- NPWS reserve (see inset)
- State forest (see inset)

Location and study area

Luddenham resource recovery centre Aboriginal heritage due diligence Figure 1.1



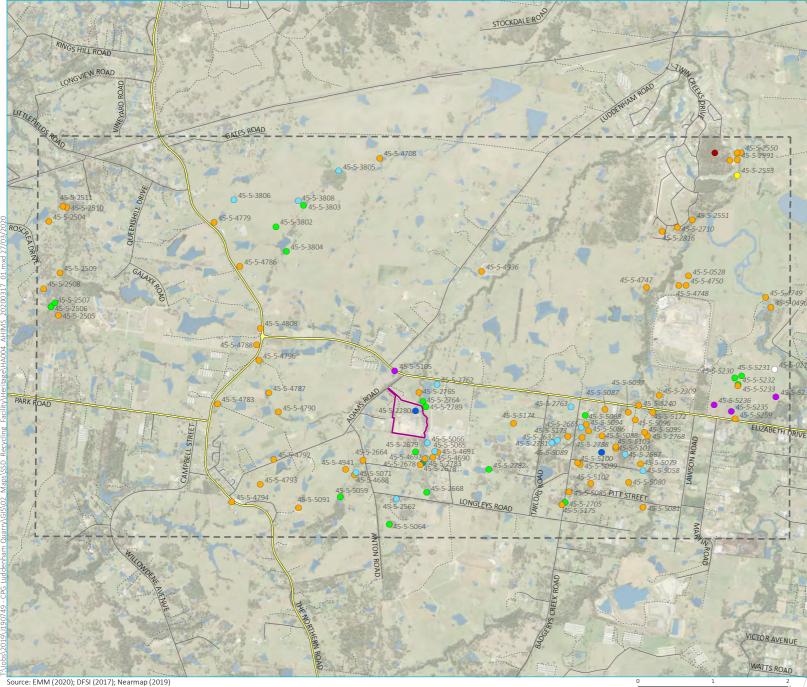
GDA 1994 MGA Zone 56



GDA 1994 MGA Zone 56 N

Aboriginal heritage due diligence Figure 1.2





Subject property

— Major road

KEY

- Minor road
- ······ Vehicular track
- AHIMS site types
- Axe grinding groove
- Culturally modified tree
 Culturally modified tree, undefined artefactual site
- Isolated find
- Low density artefactual site (10-20)
- Low density artefactual site (<10)
- Medium density artefact site (20-50)
- Potential archaeological deposit
- Undefined artefactual site

AHIMS search results

Luddenham resource recovery centre Aboriginal heritage due diligence Figure 3.1



GDA 1994 MGA Zone 56

3 Proposed assessment methodology

3.1 Relevant documents

This assessment will be completed in accordance with the following documents in accordance with SEARs:

- Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (the Code) (DECCW 2010a);
- *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (DECCW 2010b); and
- Aboriginal Consultation Requirements for Proponents 2010 (DECCW 2010c).

3.2 Assessment methods

The purpose of the assessment is to identify and manage the Aboriginal cultural heritage values of all areas that will be affected by the study. In summary, this will involve.

- consultation with Registered Aboriginal Parties (RAPs) to identify socio-cultural values of the project area and places of special significance that should be considered;
- a search of the AHIMS register for records of previously registered Aboriginal sites;
- a review of past Aboriginal heritage reports covering the study area;
- environmental landscape analysis to identify past Aboriginal resources and suitable occupation areas;
- synthesis of background research to develop a predictive model of Aboriginal site location;
- a site meeting and walkover of the study area with RAPs to discuss the project and identify any key areas of interest or concern;
- an assessment of significance for Aboriginal cultural heritage values in the project area (with input from RAPs);
- an impact assessment of how the project will affect Aboriginal cultural heritage values in the project area; and
- development of management recommendations based on the results of the ACHA and input from RAPs during the consultation process and particularly from the draft ACHA review period.

3.3 Archaeological investigation

The archaeological survey sampling strategy for the ACHA is designed to build on the archaeological survey that was done by EMM in February 2020 as part of the due diligence assessment, as well as following the requirements of the Code. A representative from EMM together with five RAPs will survey the study area, focusing on areas of archaeological potential such as the riparian corridor beside Oaky Creek and the areas in the north of the site that are proposed for impacts. All fieldwork participants will need to comply with COVID-19 safe protocols as specified in Appendix A.

Based on the results of the due diligence assessment, EMM has not identified any areas that are considered potential archaeological deposit (PAD) and warranting test excavation under the Code. As such, test excavation is not proposed at this stage. If through the course of the ACHA the requirement for test excavation arises, EMM would employ the methods stipulated under Requirements 14–17 of the Code.

4 Timeline

EMM Heritage proposes the following indicative timeframes for the project

- Distribution of this document to RAPs: late May 2020.
- End of review period for the proposed methodology: late June 2020 (28 day review period).
- Site inspection with RAPs, late June.
- Distribution of the draft report: early July 2020;
- End of review period for the draft report: early August (28 day review period).

5 Roles, functions and responsibilities

EMM Heritage propose the following general roles, functions and responsibilities for EMM and RAPS.

EMM Heritage is responsible for the following:

- conducting the Aboriginal cultural heritage assessment;
- facilitating the Aboriginal consultation process; and
- considering the cultural perspectives, views, knowledge and advice of the RAPs in assessing cultural significance and developing management measures.

Registered Aboriginal parties are responsible for the following:

- providing cultural perspectives, views, knowledge and advice to EMM Heritage;
- indicating areas of cultural significance (if known and relevant to the study area);
- having an awareness and understanding of the commercial environment and constraints in which the Code operates; and
- demonstrating awareness and understanding of the opportunities to input into the ACHA and management recommendations.

We recommend that you refer to the document *Aboriginal Consultation Requirements for Proponents 2010* (DECCW 2010) for further information about the consultation process. This can be downloaded at https://www.environment.nsw.gov.au/resources/cultureheritage/commconsultation/09781ACHconsultreg .pdf

No formal consultation meetings are currently proposed for the project, however EMM are available to discuss issues and concerns either during the site inspection fieldwork (for those attending) or via telephone, email or video conference. EMM will update RAPs if the need for a consultation meeting arises during the ACHA process.

6 Request for information

Aboriginal heritage incorporates a wide range of values such as stories, traditions and cultural practices. EMM welcomes advice from the Aboriginal community about Aboriginal cultural values (which might include archaeological sites or other types of values) relevant to the study area and its surrounds.

EMM Heritage is relying on the Aboriginal community for advice on non-archaeological, including intangible, Aboriginal values for the study area. We are happy to discuss any information which you are willing to share and will respect confidentiality where requested. Email is our preferred method of communication (see contact details at the end of this letter) but we will also accept letters and faxes and telephone calls to discuss relevant Aboriginal cultural heritage information. Please contact us at your earliest opportunity.

EMM would appreciate your feedback on the above methodology proposed for the investigation and assessment of the study area. In returning your answers, please include the following where appropriate:

- any protocols that you would like adopted during the project;
- identification of any Aboriginal objects of cultural significance and/or importance that you are aware of within the project area, and how you wish them to be dealt with during the project;
- identification of any places of cultural significance and/or importance that you are aware of within the activity area, and how you wish them to be dealt with during the project;
- guidance on the protocols, sensitivity, use and/or distribution of any cultural information that you provide to EMM Heritage;
- whether you require any further information prior to EMM Heritage proceeding with the project.

7 Closing

We look forward to receiving any response your organisation wishes to make about the proposed method by **19 June 2020**. Your response will be documented and considered in the assessment. Most importantly, your cultural information is also welcome within this timeframe; but it can also be submitted up until the completion of the draft ACHA.

Please feel free to contact me with any questions.

Yours sincerely

hourd

Pamela Chauvel Consultant Archaeologist pchauvel@emmconsulting.com.au

Appendix A

COVID-19 consultation methods

A.1 General

EMM is cognisant of the importance of safety to community and stakeholders, clients and staff. Prior to any engagement those with the greatest risk of more serious illness with COVID-19 will be considered:

- Aboriginal and Torres Strait Island people over the age of 50.
- Those aged 60 year and over.

We adhere to the Government requirements regarding COVID-19 and amend our approach as required in this dynamic environment. At the time of writing this document, we note the need to:

- maintain a 1.5m distance when outside;
- maintain a 4 sqm distance when inside;
- regularly wash hands using soap and water or alcohol-based hand sanitiser;
- clean surfaces prior and after use using alcohol-based sanitiser; and
- observe all travel bans.

The current COVID-19 pandemic and the government requirements to self-isolate and practice social distancing has necessitated a different approach to community and stakeholder engagement.

Although EMM does not propose any formal consultation meetings for the project at this stage, we note that the limitations presented by COVID would require alternative methods to the typical face-to-face scenarios in enclosed venues. As a guide, EMM has responded by adopting the practices outlined in Table A1.

Table A.1Aboriginal community and stakeholder engagement options – COVID-19

Previous approach	COVID-19 methods
Group meetings/ workshops	Videoconference and/or
	Online forum/discussions using Social Pinpoint or equivalent
	 Satellite model where a safe location is provided¹ in negotiation with the client and or participant/s. The location will be set to have:
	 Person to welcome and direct person to computer station and be available to assist if required;
	 Computer station with videoconference session ready ie person only needs to sit and participate in the group discussion;
	 Sanitary wipes to allow the participant to wipe keyboard and mouse before and after participation in the interview.

¹ If inside 4 sqm per person or computer station, if outside 1.5m between each person or computer station.

From: Sent: To: Subject:	lilly carroll <didgengunawalclan@yahoo.com.au> Friday, 22 May 2020 7:35 PM Pamela Chauvel; Ryan Desic Re: Luddenham Quarry - project information, assessment methods and request for cultural information</didgengunawalclan@yahoo.com.au>
Follow Up Flag:	Flag for follow up
Flag Status:	Completed

Hi Pam and Ryan,

DNC is happy with all endorsements and don't need to include anything further,

Kind regards Paul Boyd & Lilly Carroll Directors DNC

Sent from Yahoo Mail for iPhone

On Friday, May 22, 2020, 4:59 pm, Pamela Chauvel cpchauvel@emmconsulting.com.au> wrote:

Dear Registered Party,

Thank you for registering your interest in being consulted in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Resource Recovery Centre at Luddenham Quarry. Please find attached to this email, a letter outlining the project and proposed assessment methods, and providing your party with an opportunity to inform EMM about any Aboriginal cultural heritage values associated with the project.

Please provide any written responses by 19 June 2020.



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From: Sent:	Lee Field <barrabyculturalservices@gmail.com> Monday, 25 May 2020 1:25 PM</barrabyculturalservices@gmail.com>
То:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - project information, assessment methods and request for cultural information
Attachments:	image004.png

Dear Pamela

I on behalf of Barraby have reviewed the attached document and supports the methodology for this project.

Barraby would like to be involved in the upcoming walk over in June if possible.

If you need anymore information please let me know.

Thanks Lee Field

On Fri, 22 May 2020, 4:59 pm Pamela Chauvel, <<u>pchauvel@emmconsulting.com.au</u>> wrote:

Dear Registered Party,

Thank you for registering your interest in being consulted in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Resource Recovery Centre at Luddenham Quarry. Please find attached to this email, a letter outlining the project and proposed assessment methods, and providing your party with an opportunity to inform EMM about any Aboriginal cultural heritage values associated with the project.

Please provide any written responses by 19 June 2020.

Pamela Chauvel

Consultant Archaeologist

		т	02 9493 9500
		Μ	0433 398 733
	Connect with	D	02 9493 9554
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From: Sent: To: Cc: Subject:	Caine Carroll <goodradigbee1@outlook.com> Monday, 25 May 2020 10:25 PM Pamela Chauvel Ryan Desic Re: Luddenham Quarry - project information, assessment methods and request for cultural information</goodradigbee1@outlook.com>
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

Hi Pamela,

Trust this email finds you safe and well.

Thanks for the update and information on the way moving forward with the project.

Goodradigbee is happy with the plan that's outlined in the document and happy to support things moving forward.

Speak with you soon and enjoy the week.

Kind Regards,

Caine Carroll 0410 974 236 Director Goodradigbee Cultural & Heritage Aboriginal Corporation (GCAHAC)

On 22 May 2020, at 5:00 pm, Pamela Chauvel chauvel@emmconsulting.com.au> wrote:

Dear Registered Party,

Thank you for registering your interest in being consulted in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Resource Recovery Centre at Luddenham Quarry. Please find attached to this email, a letter outlining the project and proposed assessment methods, and providing your party with an opportunity to inform EMM about any Aboriginal cultural heritage values associated with the project.

Please provide any written responses by 19 June 2020.

Pamela Chauvel Consultant Archaeologist

[cid:image005.png@01D6305A.4D5CDE10]<https://nam03.safelinks.protection.outlook.com/?url=h

ttp%3A%2F%2Fwww.emmconsulting.com.au%2F&data=02%7C01%7C%7Cc7ffea9cea03479236d508 d7fe1da90d%7C84df9e7fe9f640afb435aaaaaaaaaaaa%7C1%7C0%7C637257276141452939&sdata= cZOG7CANE2rBfBXKYFI3dz8HB5QCGUwnwaNJBOIRb9U%3D&reserved=0>

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hy3jVpuxohANts__N87B0E_hlLTU9siWq2DBLB4kZaQ2O1Dw5YQ9bMtESUa5EFDu8qtgukuiHgckViU8 n1krguSj8flAJEfmpdjzfUfA17g]<https://nam03.safelinks.protection.outlook.com/?url=https%3A%2F %2Fau.linkedin.com%2Fcompany%2Femm-consulting-pty-

limited&data=02%7C01%7C%7Cc7ffea9cea03479236d508d7fe1da90d%7C84df9e7fe9f640afb435aa aaaaaaaaaa%7C1%7C0%7C637257276141462927&sdata=rC0M6NWVF9dZK6ANzU8NZleCmrbyS2G7 N1EIQb7px7Y%3D&reserved=0> Connect with us

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<J190749_Stage 2 letter.pdf>

From:philip khan < philipkhan.acn@live.com.au>Sent:Monday, 25 May 2020 12:34 PMTo:Pamela ChauvelSubject:RE: Luddenham Quarry - project information, assessment methods and request for
cultural information

Hi Pamela,

Hope you are well!

This area was highly signifgant to the old Aboriginal People of the past, it was a hunting area & camping along the small waterways that cross the land. There could be burial grounds & there are areas that need to be looked at with Aboriginal Reps & archaeologists therefore I am recommending a walkover be done.

Kind Regards Phil Khan



Sent from Mail for Windows 10

From: <u>Pamela Chauvel</u>
Sent: Friday, 22 May 2020 4:59 PM
To: <u>Ryan Desic</u>
Subject: Luddenham Quarry - project information, assessment methods and request for cultural information

Dear Registered Party,

Thank you for registering your interest in being consulted in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Resource Recovery Centre at Luddenham Quarry. Please find attached to this email, a letter outlining the project and proposed assessment methods, and providing your party with an opportunity to inform EMM about any Aboriginal cultural heritage values associated with the project.

Please provide any written responses by 19 June 2020.

Consultant Archaeologist



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From:	Bo Field <yurrandaali_cs@hotmail.com></yurrandaali_cs@hotmail.com>
Sent:	Monday, 25 May 2020 9:22 AM
То:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - project information, assessment methods and request for
	cultural information

Dear Pamela,

I on behalf of Yurrandaali Pty Ltd has read and is in support of the proposed methodology associated with this project however I do have a few things that I would like to add.

I am in support of the walkover however I believe that doing test excavations would give us a more accurate understanding of whether PADs are existent within the project area.

I have been working on site at the Western Sydney Airport which has had a lot of sites with high density of artefacts. The aerial shots provided in the methodology show that the project area is adjacent to the WSA so I believe test excavations should be included if possible after the walkover has been conducted.

Kind Regards,

Bo Field - Manager/Site Officer Yurrandaali Pty Ltd 0403 048 263 | yurrandaali_cs@hotmail.com

From: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Sent: Friday, 22 May 2020 4:59 PM
To: Ryan Desic <rdesic@emmconsulting.com.au>
Subject: Luddenham Quarry - project information, assessment methods and request for cultural information

Dear Registered Party,

Thank you for registering your interest in being consulted in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Resource Recovery Centre at Luddenham Quarry. Please find attached to this email, a letter outlining the project and proposed assessment methods, and providing your party with an opportunity to inform EMM about any Aboriginal cultural heritage values associated with the project.

Please provide any written responses by 19 June 2020.



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From: Sent: To: Subject:	Carolyn .H <cazadirect@live.com> Thursday, 28 May 2020 5:43 PM Pamela Chauvel Re: Luddenham Quarry - project information, assessment methods and request for information</cazadirect@live.com>
Follow Up Flag:	Flag for follow up
Flag Status:	Completed



Contact: Carolyn Hickey M: 0411650057 E: Cazadirect@live.com A: 10 Marie Pitt Place, Glenmore Park, NSW 2745 ACN: 639 868 876

Hi Pamela, I have reviewed the document and support the project information, assessment methods. Kind Regards Carolyn Hickey

From: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Sent: Monday, 25 May 2020 8:26 AM
To: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Subject: Luddenham Quarry - project information, assessment methods and request for information

Dear Registered Party,

Thank you for registering your interest in being consulted in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Resource Recovery Centre at Luddenham Quarry. Please find attached to this email, a letter outlining the project and proposed assessment methods, and providing your party with an opportunity to inform EMM about any Aboriginal cultural heritage values associated with the project.

Please provide any written responses by 19 June 2020.

Kind regards, Pamela

Pamela Chauvel Consultant Archaeologist

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From:	Pamela Chauvel
Sent:	Monday, 1 June 2020 8:27 AM
То:	Steve Randall
Subject:	Luddenham Quarry - project information, ACHA methodology and request for information
Attachments:	J190749_Stage 2 letter.pdf

Dear Steve,

Please find attached to this email, a letter outlining the project and proposed assessment methods for the ACHA for the proposed Resource Recovery Centre at Luddenham Quarry. We also welcome any information regarding Aboriginal cultural heritage values associated with the project.

Please provide any written responses by 19 June 2020.

Kind regards,

Pamela

Pamela Chauvel

Consultant Archaeologist



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 D 02 9493 9554
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From:Pamela ChauvelSent:Monday, 1 June 2020 8:36 AMTo:'Norma Burrows'Subject:RE: Luddenham Quarry Resource Centre ACHA - Aboriginal Stakeholders ListAttachments:J190749_Stage 2 letter.pdf

Dear Norma,

Thank you for your response regarding the list of Aboriginal stakeholders. I have registered the Aboriginal Consultative Committee for consultation on the project and have attached a letter about the project for your information. The letter includes the proposed methodology and a request for cultural information. You will see that there is a registered artefact site within the study area although it is outside the proposed impact footprint for the development.

Please don't hesitate to contact me if you have any questions.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



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From: Norma Burrows <BurrowsN@liverpool.nsw.gov.au>
Sent: Thursday, 28 May 2020 1:21 PM
To: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Subject: Luddenham Quarry Resource Centre ACHA - Aboriginal Stakeholders List

Good afternoon Ms Chauvel

As requested please find attached a list of Aboriginal Stakeholders that may in interested in the proposed Aboriginal Cultural Heritage Assessment (ACHA). Please note: Council Aboriginal Consultative Committee is on the list, however members will only be comment on methodology, reports and final resting place if artefacts are found on the site in question.

Thank you

Norma Burrows Community Development Worker ATSI



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From:	Norma Burrows <burrowsn@liverpool.nsw.gov.au></burrowsn@liverpool.nsw.gov.au>
Sent:	Monday, 1 June 2020 10:26 AM
То:	Pamela Chauvel
Cc:	Jacqueline Newsome
Subject:	RE: Luddenham Quarry Resource Centre ACHA - Aboriginal Stakeholders List

Good morning Pamela,

Thank you for your dated 1 June 2020, I have addressed to questions within your email from page 9;

"Feedback on the above methodology proposed for the investigation and assessment of the study area. In returning your answers, please include the following where appropriate":

• Any protocols that you would like adopted during the project; Yes please contact Council's Aboriginal Consultative Committee(ACC) via me (Norma) if any Aboriginal Objects are found on site during the development of this project, I will notify the ACC members of the findings.

• Identification of any Aboriginal objects of cultural significance and/or importance that you are aware of within the project area, and how you wish them to be dealt with during the project; Yes please contact Council's Aboriginal Consultative Committee (ACC) via me (Norma) if any Aboriginal Objects are found on site during the development of this project, I will notify the ACC members of the findings. I feel a meeting needs to be called for all Stakeholders to decide where the objects will be laid the rest or reburned on site.

• Identification of any places of cultural significance and/or importance that you are aware of within the activity area, and how you wish them to be dealt with during the project;

I feel a meeting needs to be called with all of stakeholders present (On-line) to decide where the objects will be laid the rest or reburned on site, as a collective.

• Guidance on the protocols, sensitivity, use and/or distribution of any cultural information that you provide to EMM Heritage; I feel a meeting needs to be called for all Stakeholders to discuss this matter future.

• whether you require any further information prior to EMM Heritage proceeding with the project; No not a this stage thank you.

Thank you again talk soon.

LIVERPOOL

Norma Burrows Community Development Worker ATSI

02 8711 7477 | | <u>BurrowsN@liverpool.nsw.gov.au</u> Customer Service: 1300 36 2170 | 52 Scott Street Liverpool, NSW 2170, Australia

www.liverpool.nsw.gov.au



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From: Pamela Chauvel <pchauvel@emmconsulting.com.au> Sent: Monday, 1 June 2020 8:36 AM

To: Norma Burrows <BurrowsN@liverpool.nsw.gov.au> Subject: RE: Luddenham Quarry Resource Centre ACHA - Aboriginal Stakeholders List

Dear Norma,

Thank you for your response regarding the list of Aboriginal stakeholders. I have registered the Aboriginal Consultative Committee for consultation on the project and have attached a letter about the project for your information. The letter includes the proposed methodology and a request for cultural information. You will see that there is a registered artefact site within the study area although it is outside the proposed impact footprint for the development.

Please don't hesitate to contact me if you have any questions.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



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From: Norma Burrows <<u>BurrowsN@liverpool.nsw.gov.au</u>>
Sent: Thursday, 28 May 2020 1:21 PM
To: Pamela Chauvel <<u>pchauvel@emmconsulting.com.au</u>>
Subject: Luddenham Quarry Resource Centre ACHA - Aboriginal Stakeholders List

Good afternoon Ms Chauvel

As requested please find attached a list of Aboriginal Stakeholders that may in interested in the proposed Aboriginal Cultural Heritage Assessment (ACHA). Please note: Council Aboriginal Consultative Committee is on the list, however members will only be comment on methodology, reports and final resting place if artefacts are found on the site in question.

Thank you

Norma Burrows Community Development Worker ATSI





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From: Sent: To: Cc: Subject:	Wendy Morgan <wenlissa01@hotmail.com> Tuesday, 9 June 2020 4:59 PM Pamela Chauvel Brad Maybury RE: Luddenham Quarry - project information, assessment methods and request for cultural information</wenlissa01@hotmail.com>
Follow Up Flag:	Follow up
Flag Status:	Flagged

Hi Pamela,

Guntawang Aboriginal Resources Inc (GARI) is happy with the proposed assessment methods for the proposed sight of Luddenham Quarry.

Thank you for provided the project information.

As the CEO GARI I would like to recommend that Brad Maybury our Cultural and Heritage Officer be used in the site walk overs if possible, Brad can offer extensive knowledge to the history of the lay of the land and where activities could have taken place from our ancestors. Brad has extensive knowledge, this he has gained from living on our home lands and being taught by his Uncle and Great Uncle who were sights men in our community the Yuin Nation. Brad has over 5 yrs of working as a Cultural and Heritage Officer.

Kind regards

Wendy Morgan CEO GARI 0414 964 657

Sent from Mail for Windows 10

From: Pamela Chauvel Sent: Monday, 25 May 2020 8:36 AM To: <u>Wenlissa01@hotmail.com</u> Subject: Luddenham Quarry - project information, assessment methods and request for cultural information

Dear Registered Party,

Thank you for registering your interest in being consulted in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Resource Recovery Centre at Luddenham Quarry. Please find attached to this email, a letter outlining the project and proposed assessment methods, and providing your party with an opportunity to inform EMM about any Aboriginal cultural heritage values associated with the project.

Please provide any written responses by 19 June 2020.

Kind regards,

Pamela

Consultant Archaeologist



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From: Sent: To: Subject:	Rodney Gunther <waawaar.awaa@gmail.com> Monday, 15 June 2020 2:17 PM Pamela Chauvel Re: Luddenham Quarry - project information, assessment methods and request for cultural information</waawaar.awaa@gmail.com>
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

CAUTION: This email originated outside of the Organisation.

Hi Pamela,

Waawaar Awaaa Aboriginal Corporation supports the methodology for the proposed Resource Recovery Centre at Luddenham Quarry.

regards

Rodney 0410580962

On Fri, May 22, 2020 at 4:59 PM Pamela Chauvel <<u>pchauvel@emmconsulting.com.au</u>> wrote:

Dear Registered Party,

Thank you for registering your interest in being consulted in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Resource Recovery Centre at Luddenham Quarry. Please find attached to this email, a letter outlining the project and proposed assessment methods, and providing your party with an opportunity to inform EMM about any Aboriginal cultural heritage values associated with the project.

Please provide any written responses by 19 June 2020.







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17 July 2020



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Re: Luddenham Quarry ACHA - notification of test excavation and methodology

Dear Sir/Madam,

Thank you for your continued consultation in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Advanced Resource Recovery Centre (ARRC) at Luddenham Quarry. EMM Consulting Pty Ltd (EMM) is preparing the ACHA for Coombes Property Group/KLF Holdings.

This letter contains information regarding a proposed program of archaeological test excavation and invites your feedback on the content of this letter prior to **31 July 2020.**

1 Background

EMM initially presented proposed assessment methodology for the project to RAPs in May 2020. This outlined that test excavation may be required as part of the project ACHA. EMM stated that the test excavation would follow the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (the Code) (DECCW 2010).

Archaeological survey of the project area and a site meeting was conducted with RAPs on 29 June 2020. During the survey and on-site discussion, all RAPs expressed their support for the possibility of test excavation. Test excavation is proposed in order to assess the potential impact of the project footprint on Aboriginal cultural heritage values and present appropriate management measures if required.

2 Archaeological summary

Desktop research and archaeological survey of the project area has identified the following:

- there are no Aboriginal Heritage Information Management System (AHIMS) sites within the project area. Oaky Creek 1 (#45-5-2280) is a medium density artefact scatter beside Oaky Creek, that was identified in 1991 and is currently fenced off and protected (see attached figure).
- archaeological survey identified that the riparian corridor of Oaky Creek, outside the project area, is the area most likely to have potential archaeological deposit in the subject property; although no Aboriginal cultural material was located during the survey;
- the project area has previously been subject to a range of moderate and high levels of ground disturbance as a result of modern activities. This is especially the case on the southern and eastern boundaries of the project area, where the landscape has been altered significantly by quarrying and other earthworks, stockpiling or waste disposal between 2014 and 2017 and the addition of stormwater retention ponds in the eastern portion of the project area. There is negligible potential for surface and/or subsurface material to be present in the southern and eastern boundaries of the project area; and

• a level, grassed area, within between 100 m and 200 m of Oaky Creek in the project area, has experienced some historic disturbance from de-vegetation and use as a grazing paddock.

3 Test excavation

3.1 Aims

EMM proposes to undertake test excavation within the project footprint in accordance with the Code to collect information about the nature and extent of sub-surface Aboriginal objects. Results of the test excavation will help interpret the Aboriginal history of the local area, assess its significance, and inform mitigation measures for the proposed ARRC development.

While the project area is situated on a single landform, a gentle rise with an easterly aspect sloping towards Oaky Creek, the potential for sub-surface archaeological deposit is likely to have been affected by various levels of historical ground disturbance. Consequently, a map showing areas of low and moderate archaeological sensitivity (see attached figure) within the project area has been developed. The mapping is informed by historical aerial imagery, review of the results of previous archaeological studies in the local area, and landscape observations made during archaeological survey (refer to Sections 3, 5 and 6 of the draft ACHA for more information).

Test excavation aims to establish the distribution of artefact frequencies, site boundaries and/or subsurface artefact concentrations. In order to do this, the focus of the sampling strategy will be in the area of moderate potential (see attached figure), while a small portion of the proposed test excavation program will focus on verifying predictions of low archaeological potential.

3.2 Method

The proposed excavation method will follow the Code (DECCW 2010) and will generally be as follows:

- The test pit transects will follow a grid system. Test pit locations in each transect will be spaced at a minimum of 5 m apart and up to 20 m apart. The exact spacing at each site may vary based on observations in the field and artefact density results as they come to hand.
- The first test pit at each site will be dug manually with hand tools in 5 cm levels termed 'spits' to identify the nature of the soils and to identify any stratigraphic sequence. All subsequent test pits will be excavated in 10 cm spits or in stratigraphic sequence (whichever is smaller).
- Additional test pits will be placed in the area of high disturbance/low potential.
- Test pits will be 50 cm x 50 cm.
- Each pit will be excavated until basal clay is reached, or to at least one spit (10 cm) below the artefact bearing level identified at each test area.
- All material excavated from the test pits will be wet sieved on site during the excavation programme using a 5 mm mesh sieve.
- Photographic and scale-drawn records of the stratigraphic soil profile of the test pits will be made.
- Test pits will be backfilled after recording.

The excavation supervisor will determine the specific number and location of test pits depending on results gathered during excavation. Test pits marked along transects may be terminated if conditions warrant such change. Additional test pits may be dug to clarify the local artefact distribution. These decisions will be made

by the supervising archaeologist in the field based on the archaeological results as they come to hand; however, such deviations from the intended work-plan will only be adopted in compelling circumstances.

4 Objects recovered during test excavation

The temporary location for the storage of artefacts will be in a lockable room at EMM's Sydney Office:

Ground Floor, Suite 1 20 Chandos Street St Leonards NSW 1590

Artefacts will eventually be stored in an agreed keeping place or returned to country as agreed by RAPs. All excavated artefacts will be transferred back to the general area at the earliest reasonable opportunity.

5 Artefact analysis

Basic recording and analysis will be undertaken for the artefact assemblage recovered from the test excavation with the aim to form a baseline characterisation of the excavated material. Analysis of excavated stone artefacts will include:

- initial sorting and cleaning of excavated material;
- establishment of a computer database using Microsoft Access or Microsoft Excel (depending on the size of the assemblages) to record all provenance information;
- measuring and recording the attributes of stone artefacts; and
- statistical analysis of the data to explore the frequency, distribution, raw material type, implement type and size of the of the artefacts in the assemblage.

6 Test pit analysis

Landscape and soil information is important in understanding the integrity, nature, and distribution of the archaeology. Provenance analysis includes the recording, drawing and analysis of soil profiles to inform the integrity and potentially the date of the archaeological record.

7 Reporting

Aboriginal Heritage Information Management System (AHIMS) site cards will be completed for each Aboriginal site and an Aboriginal Site Impact Recording Form prepared for each site impacted by the test excavation (if applicable).

The results of the test excavation will be included in an updated ACHA and provided to RAPs for review.

8 Timeline

We propose the following indicative timeframes for the project. Please note that these timeframes are indicative only and may be subject to change as the assessment progresses.

Task	Indicative timeframe
Distribution of proposed methodology (this document)	17 July 2020. Comments requested by 31 July 2020.
Distribution of draft ACHA to RAPs	17 July 2020. Comments requested by 14 August
Test excavation	Mid August
Distribution of the draft ACHA (updated with test excavation results) to RAPs for review	Mid September (28-day review timeframe)

9 Information sought from RAPs

We welcome your feedback on the content of this letter by **31 July 2020.**

When providing a response, please consider any of the following where appropriate:

- any protocols that you would like adopted during the project;
- identification of any Aboriginal objects of cultural significance and/or importance that you are aware of within the study area, and how you wish them to be dealt with as part of this assessment; and
- guidance on the protocols, sensitivity, use and/or distribution of any cultural information that you provide to EMM as part of this assessment; and
- whether you require any further information prior to EMM proceeding.

9.1 Closing

Thank you for your time. We appreciate the opportunity to consult with RAPs to decide on the most appropriate assessment methods. We will be contacting RAPs shortly with further details about fieldwork, including a fieldwork roster and logistics. If you have any queries regarding the content of this letter, please do not hesitate to contact me on my details below.

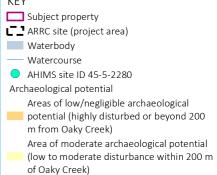
Yours sincerely

hourd

Pamela Chauvel Consultant archaeologist pchauvel@emmconsulting.com.au

ph. 0433 398 733





KEY

GDA 1994 MGA Zone 56 N

Archaeological potential

Luddenham Advanced Resource Recovery Centre Aboriginal Cultural Heritage Assessment Figure 7.1 creating opportunities



From:	Lee Field <barrabyculturalservices@gmail.com></barrabyculturalservices@gmail.com>
Sent:	Friday, 17 July 2020 4:33 PM
То:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of test excavation and methodology

CAUTION: This email originated outside of the Organisation.

Dear Pamela,

I on behalf of Barraby supports the test excavation methodology for this project.

Thanks Lee Field

Sent from my iPhone

On 17 Jul 2020, at 10:48 am, Pamela Chauvel cpchauvel@emmconsulting.com.au> wrote:

Dear all,

Please find attached a letter containing information regarding a proposed program of archaeological test excavation at Luddenham Quarry ARRC site and invites your feedback on the content of this letter prior to **31 July 2020.**

We appreciate the opportunity to consult with RAPs to decide on the most appropriate assessment methods. We will be contacting RAPs shortly with further details about fieldwork, including a fieldwork roster and logistics. If you have any queries regarding the content of this letter, please do not hesitate to contact me on my details below.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist

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<image001.png></image001.png>			

<image003.png> Connect with us

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<J190749_methodology letter to RAPs_V1.pdf>

From: Sent: To: Cc: Subject: Attachments: Pamela Chauvel Friday, 17 July 2020 10:48 AM Pamela Chauvel Ryan Desic Luddenham Quarry - notification of test excavation and methodology J190749_methodology letter to RAPs_V1.pdf

Dear all,

Please find attached a letter containing information regarding a proposed program of archaeological test excavation at Luddenham Quarry ARRC site and invites your feedback on the content of this letter prior to **31 July 2020.**

We appreciate the opportunity to consult with RAPs to decide on the most appropriate assessment methods. We will be contacting RAPs shortly with further details about fieldwork, including a fieldwork roster and logistics. If you have any queries regarding the content of this letter, please do not hesitate to contact me on my details below.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



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From:	Phillip Boney <waarlan12@outlook.com></waarlan12@outlook.com>
Sent:	Thursday, 16 July 2020 8:19 PM
То:	Pamela Chauvel
Subject:	Re: Mamre Road - comments on draft Aboriginal Heritage Study due by 28 July
	2020

CAUTION: This email originated outside of the Organisation.

Hi Pamela,

It's Phil here as we spoke about on the survey site

I think a test excavation is In order to determine for sure that no cultural significance had or will be impacted given that the creek nearby could have been used for Agriculture of some sort and that there is going to be a resource and recovery centre being built on this site, Pamela I hope my input was positive and just for the outcome of this project Regards Phil Boney.

Sent from my iPhone

On 16 Jul 2020, at 5:09 pm, Pamela Chauvel chauvel@emmconsulting.com.au> wrote:

Dear all,

I am writing to remind you that comments on the draft Aboriginal Heritage Study report are due by **28 July 2020.**

The report can viewed via this hightail link: https://spaces.hightail.com/receive/vNoE7m9LqT

Thank you to those who have already sent comments.

If you are having trouble responding within this timeframe, or have any questions, please don't hesitate to contact me.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist

t 02 9493 9500
M 0433 398 733
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<image004.png> Connect with us

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From:	Arika Jalomaki <yulayculturalservices@gmail.com></yulayculturalservices@gmail.com>
Sent:	Friday, 17 July 2020 4:58 PM
To:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of test excavation and methodology
Follow Up Flag:	Flag for follow up
Flag Status:	Completed

CAUTION: This email originated outside of the Organisation.

Dear Pamela,

I have read and agree with the methodology for this project and I am available for the upcoming archaeological test excavation's.

Kind regards, Arika Jalomaki 0411 048 794

On Fri, 17 Jul 2020 at 10:48 am, Pamela Chauvel <<u>pchauvel@emmconsulting.com.au</u>> wrote:

Dear all,

Please find attached a letter containing information regarding a proposed program of archaeological test excavation at Luddenham Quarry ARRC site and invites your feedback on the content of this letter prior to **31 July 2020.**

We appreciate the opportunity to consult with RAPs to decide on the most appropriate assessment methods. We will be contacting RAPs shortly with further details about fieldwork, including a fieldwork roster and logistics. If you have any queries regarding the content of this letter, please do not hesitate to contact me on my details below.

Kind regards,

Pamela

Pamela Chauvel Consultant Archaeologist



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Arika Jalomaki

From:	Bo <yurrandaali_cs@hotmail.com></yurrandaali_cs@hotmail.com>
Sent:	Friday, 17 July 2020 4:45 PM
То:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of test excavation and methodology

CAUTION: This email originated outside of the Organisation.

Dear Pamela

Yurrandaali supports the test excavation methodology associated with this project.

Kind Regards Bo Field

On Fri, 17 Jul 2020 at 10:48 am, Pamela Chauvel chauvel@emmconsulting.com.au> wrote:

Dear all,

Please find attached a letter containing information regarding a proposed program of archaeological test excavation at Luddenham Quarry ARRC site and invites your feedback on the content of this letter prior to **31 July 2020.**

We appreciate the opportunity to consult with RAPs to decide on the most appropriate assessment methods. We will be contacting RAPs shortly with further details about fieldwork, including a fieldwork roster and logistics. If you have any queries regarding the content of this letter, please do not hesitate to contact me on my details below.

Kind regards,

Pamela

Pamela Chauvel Consultant Archaeologist





T 02 9493 9500

M 0433 398 733



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Please consider the environment before printing my email.

From:	Rodney Gunther <waawaar.awaa@gmail.com></waawaar.awaa@gmail.com>
Sent:	Monday, 20 July 2020 6:11 PM
То:	Pamela Chauvel
Subject:	Re: Luddenham Quarry - notification of test excavation and methodology

CAUTION: This email originated outside of the Organisation.

Hi Pamela,

RE:proposed program of archaeological test excavation at Luddenham Quarry ARRC site;

- 1. any protocols that you would like adopted during the project **normal protocols**
- 2. identification of any Aboriginal objects of cultural significance and/or importance that you are aware of within the study area **possibility of artefacts and or human remains**
- 3. how you wish them to be dealt with as part of this assessment **reburial or educational purposes** (depending on what is found)
- 4. guidance on the protocols, sensitivity, use and/or distribution of any cultural information that you provide to EMM as part of this assessment **Not at this stage**
- 5. whether you require any further information prior to EMM proceeding **Dates of testing and participation** in fieldwork.

regards

Rodney

On Fri, Jul 17, 2020 at 10:48 AM Pamela Chauvel <<u>pchauvel@emmconsulting.com.au</u>> wrote:

Dear all,

Please find attached a letter containing information regarding a proposed program of archaeological test excavation at Luddenham Quarry ARRC site and invites your feedback on the content of this letter prior to **31 July 2020.**

We appreciate the opportunity to consult with RAPs to decide on the most appropriate assessment methods. We will be contacting RAPs shortly with further details about fieldwork, including a fieldwork roster and logistics. If you have any queries regarding the content of this letter, please do not hesitate to contact me on my details below.

Kind regards,

Pamela



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- M 0433 398 733
- D 02 9493 9554

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us

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Please consider the environment before printing my email.

From:	philip khan <philipkhan.acn@live.com.au></philipkhan.acn@live.com.au>
Sent:	Monday, 27 July 2020 12:46 PM
To:	Pamela Chauvel
Subject:	RE: Luddenham Quarry - notification of test excavation and methodology
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

CAUTION: This email originated outside of the Organisation.

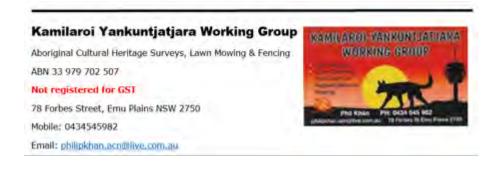
Hi Pamela,

Hope you are well.

Thank you for your report, I agree and support with your methodology regarding the Luddenham Quarry to investigate further in the way of test excavations.

We look forward to working with you and your team on this project.

Thanks Phil Khan



From: Pamela Chauvel Sent: Friday, 17 July 2020 10:48 AM To: Pamela Chauvel Cc: Ryan Desic Subject: Luddenham Quarry - notification of test excavation and methodology

Dear all,

Please find attached a letter containing information regarding a proposed program of archaeological test excavation at Luddenham Quarry ARRC site and invites your feedback on the content of this letter prior to **31 July 2020.**

We appreciate the opportunity to consult with RAPs to decide on the most appropriate assessment methods. We will be contacting RAPs shortly with further details about fieldwork, including a fieldwork roster and logistics. If you have any queries regarding the content of this letter, please do not hesitate to contact me on my details below.

Kind regards, Pamela

Consultant Archaeologist



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Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

Heritage NSW Aboriginal Cultural Heritage Regulation Team Department of Premier and Cabinet Via email: heritagemailbox@environment.nsw.gov.au

E info@emmconsulting.com.au www.emmconsulting.com.au

T 02 9493 9500

Re: Luddenham Quarry: Notice of archaeological test excavation

1 Notice of proposed test excavation

1.1 Overview

6 August 2020

EMM is writing to you in relation to the proposed Advanced Resource Recovery Centre (ARRC) at Luddenham Quarry, Luddenham NSW. EMM Consulting Pty Ltd (EMM) is preparing the ACHA for Coombes Property Group/KLF Holdings. The project is State Significant Development (SSD) under the NSW *Environmental Planning and Assessment Act 1979*.

This letter provides notice of the proposed test excavation to be conducted within the development footprint for the project. This letter has been prepared in accordance with Requirement 15c of the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (the Code) (DECCW 2010). A sampling strategy has also been provided to satisfy Requirement 15b of the Code.

1.2 Project location

The subject property is at 275 Adams Road, Luddenham NSW (Lot 3 in DP 623799) within the Liverpool City Council municipality (refer to attached figure).

1.3 Responsible entity

The responsible legal entity is Coombes Property Group/KLF Holdings. The project contacts are:

Pascal Bobillier, General Manager – Development Coombes Property Group, Coombes Property Group, Level 5, 2 Grosvenor Street Bondi Junction; T: 0488 111 787; E: pascal@coombesgroup.com.au.

John Scarlis, Director KLF Holdings, KLF Holdings Ltd 16 Grand Avenue, Camellia NSW 2142, T: 0424 731 495; E: john@klfholdings.com.au.

1.4 Person carrying out excavations

The excavation will be directed by Ryan Desic (BA Hons Prehistoric and Historical Archaeology) from EMM Consulting Pty Ltd (EMM). Ryan's contact details are provided below:

Ryan Desic Associate Archaeologist – Heritage Team Leader T: +61 411 329 712 E: <u>rdesic@emmconsulting.com.au</u>

1.5 Date and duration of excavation

The estimated start date is August 25-27. The excavation is anticipated to run for three days. These dates may vary, and if so, Heritage NSW will be advised.

1.6 Temporary storage location for Aboriginal objects

The temporary location for the storage of artefacts will be in a lockable room at EMM's Sydney Office:

Ground Floor, Suite 1 20 Chandos Street St Leonards NSW 1590

1.7 Consultation

EMM initially presented the proposed assessment methodology for the project to registered Aboriginal parties (RAPs) in May 2020. This outlined that test excavation may be required as part of the project Aboriginal cultural heritage assessment (ACHA). EMM stated that the test excavation would follow the Code (DECCW 2010). No feedback was provided by RAPs in response to the methodology.

Registered Aboriginal parties (RAPs) for the project were provided with a test excavation-specific methodology on 17 July 2020. RAPs were requested to provide feedback within two weeks; however, submissions made up until 14 August will be accepted to allow for a full 28 days.

RAPs have been issued the sampling strategy presented in Section 2 of this letter and will be contacted to request any feedback prior to the commencement of the proposed excavation. EMM will inform Heritage NSW of any changes to the sampling strategy that arises from this consultation.

2 Sampling strategy

2.1.1 Overview

Desktop research and archaeological survey of the project area has identified the following:

- there are no Aboriginal Heritage Information Management System (AHIMS) sites within the project area. Oaky Creek 1 (#45-5-2280) is a medium density artefact scatter beside Oaky Creek, that was identified in 1991 and is currently fenced off and protected (see attached figure).
- archaeological survey identified that the riparian corridor of Oaky Creek, outside the project area, is the area most likely to have potential archaeological deposit in the subject property; although no Aboriginal cultural material was located during the survey;
- the project area has previously been subject to a range of moderate and high levels of ground disturbance as a result of modern activities. This is especially the case on the southern and eastern boundaries of the project area, where the landscape has been altered significantly by quarrying and

other earthworks, stockpiling or waste disposal between 2014 and 2017 and the addition of stormwater retention ponds in the eastern portion of the project area. There is negligible potential for surface and/or subsurface material to be present in the southern and eastern boundaries of the project area; and

• a level, grassed area, within between 100 m and 200 m of Oaky Creek in the project area, has experienced some historic disturbance from de-vegetation and use as a grazing paddock.

2.1.2 Aims

EMM proposes to undertake test excavation within the project footprint in accordance with the Code to collect information about the nature and extent of sub-surface Aboriginal objects. Results of the test excavation will help interpret the Aboriginal history of the local area, assess its significance, and inform mitigation measures for the proposed ARRC development.

While the project area is situated on a single landform, a gentle rise with an easterly aspect sloping towards Oaky Creek, the potential for sub-surface archaeological deposit is likely to have been affected by various levels of historical ground disturbance. Consequently, a map showing areas of low and moderate archaeological sensitivity (see attached figure) within the project area has been developed. The mapping is informed by historical aerial imagery, review of the results of previous archaeological studies in the local area, and landscape observations made during archaeological survey (refer to Sections 3, 5 and 6 of the draft ACHA for more information).

Test excavation aims to establish the distribution of artefact frequencies, site boundaries and/or subsurface artefact concentrations. In order to do this, the focus of the sampling strategy will be in the area of moderate potential (see attached figure), while a small portion of the proposed test excavation program will focus on verifying predictions of low archaeological potential.

2.1.3 Method

The proposed excavation method will follow the Code (DECCW 2010) and will generally be as follows:

- The test pit transects will follow a grid system. Test pit locations in each transect will be spaced at a minimum of 5 m apart and up to 20 m apart. The exact spacing at each site may vary based on observations in the field and artefact density results as they come to hand.
- The first test pit at each site will be dug manually with hand tools in 5 cm levels termed 'spits' to identify the nature of the soils and to identify any stratigraphic sequence. All subsequent test pits will be excavated in 10 cm spits or in stratigraphic sequence (whichever is smaller).
- Additional test pits will be placed in the area of high disturbance/low potential.
- Test pits will be 50 cm x 50 cm.
- Each pit will be excavated until basal clay is reached, or to at least one spit (10 cm) below the artefact bearing level identified at each test area.
- All material excavated from the test pits will be wet sieved on site during the excavation programme using a 5 mm mesh sieve.
- Photographic and scale-drawn records of the stratigraphic soil profile of the test pits will be made.
- Test pits will be backfilled after recording.

The excavation supervisor will determine the specific number and location of test pits depending on results gathered during excavation. Test pits marked along transects may be terminated if conditions warrant such change. Additional test pits may be dug to clarify the local artefact distribution. These decisions will be made by the supervising archaeologist in the field based on the archaeological results as they come to hand; however, such deviations from the intended work-plan will only be adopted in compelling circumstances.

2.2 Storing recovered material

The temporary location for the storage of artefacts (if found) will be in a lockable room at EMM's Sydney Office:

Ground Floor, Suite 1 20 Chandos Street St Leonards NSW 1590

Any artefacts will eventually be stored in an agreed keeping place or returned to country as agreed by RAPs. All excavated artefacts will be transferred back to the general area at the earliest reasonable opportunity.

2.3 Post-fieldwork analysis

2.3.1 Artefact analysis

Basic recording and analysis will be undertaken for the artefact assemblage recovered from the test excavation with the aim to form a baseline characterisation of the excavated material. Analysis of excavated stone artefacts will include:

- initial sorting and cleaning of excavated material;
- establishment of a computer database using Microsoft Access or Microsoft Excel (depending on the size of the assemblages) to record all provenance information;
- measuring and recording the attributes of stone artefacts; and
- statistical analysis of the data to explore the frequency, distribution, raw material type, implement type and size of the of the artefacts in the assemblage.

2.3.2 Test pit analysis

Landscape and soil information is important in understanding the integrity, nature, and distribution of the archaeology. Provenance analysis includes the recording, drawing and analysis of soil profiles to inform the integrity and potentially the date of the archaeological record.

2.3.3 Reporting

Aboriginal Heritage Information Management System (AHIMS) site cards will be completed for each Aboriginal site and an Aboriginal Site Impact Recording Form prepared for each site impacted by the test excavation.

The results of excavation and subsequent management measures derived from the results will be formulated in consultation with RAPs and will be provided prior to or as part of the response to submissions (RTS) report so that Heritage NSW and the Department of Planning, Industry and Environment (DPIE) can consider any new information prior to project approval.

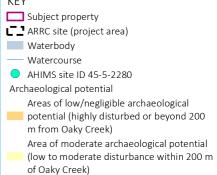
3 Closing

If you have any queries in regard to this letter and the proposed test excavation please do not hesitate to contact me on the details provided in Section 1.4.

Yours sincerely,

Ryan Desic Associate Archaeologist - Heritage Team Leader rdesic@emmconsulting.com.au





KEY

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Archaeological potential

Luddenham Advanced Resource Recovery Centre Aboriginal Cultural Heritage Assessment Figure 7.1 creating opportunities



From: Sent: To: Subject: Pamela Chauvel Thursday, 20 August 2020 1:52 PM Pamela Chauvel Luddenham quarry

Hi all,

I'm writing to let you know that the test excavation at Luddenham Quarry will be taking place next week. As the development footprint is a small area and there are only a few days of testing required, fieldwork positions are limited and unfortunately we cannot engage you at this stage. Please note that once the testing program is completed, we will assess and evaluate the requirement for post-approval investigation such as salvage. If this is to occur there are likely to be more positions available for registered parties.

We will update you on the results of the test excavation in an updated ACHA document and provide it for review in the coming month. Thank you for your time and understanding.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



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C.4 Stage 4 – issue of draft ACHA and responses

This section contains the following documents:

- letter regarding updated draft ACHA review
- RAP feedback from draft ACHA (pre-excavation) report; and
- RAP feedback from updated (post excavation) draft ACHA report.

From: Sent: To: Subject:	Norma Burrows <burrowsn@liverpool.nsw.gov.au> Thursday, 10 September 2020 8:12 AM Pamela Chauvel; Ryan Desic RE: Luddenham Quarry ACHA - draft report (including test excavation results) for comment</burrowsn@liverpool.nsw.gov.au>
Importance:	High

CAUTION: This email originated outside of the Organisation.

Good morning Pamela and Ryan,

Thank you for including Council Aboriginal Consultative Committee (ACC) to make further comments on the draft report for the site proposed for an Advance Recovery Resource Centre (ARRC) at Luddenham Quarry.

I will forward this report to the members of the ACC and we will get back to you shortly. Thank you.

Cheers **Norma Burrows** Community Development Worker ATSI

02 8711 7477 | | BurrowsN@liverpool.nsw.gov.au

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From: Pamela Chauvel <pchauvel@emmconsulting.com.au> Sent: Thursday, 10 September 2020 8:02 AM To: Ryan Desic <rdesic@emmconsulting.com.au> Subject: Luddenham Quarry ACHA - draft report (including test excavation results) for comment

HI all,

CITY

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Please provide your comments in writing (email or letter) within 28 days (ie. by **8 October 2020**). It would be helpful, when writing your comments, if you could also identify the section heading number(s) so we know specifically which part of the document to address.

If you are having trouble responding within this timeframe, or have any questions, please don't hesitate to contact me.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



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Kind regards, Pamela

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From:	Rodney Gunther <waawaar.awaa@gmail.com></waawaar.awaa@gmail.com>
Sent:	Thursday, 10 September 2020 5:43 PM
То:	Pamela Chauvel
Subject:	Re: Luddenham Quarry ACHA - draft report (including test excavation results) for comment

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Hi Pamela,

We support that the proposed seven artefacts be placed in the Gandangara LALC Keeping Place.

Rodney Gunther

On Thu, Sep 10, 2020 at 8:02 AM Pamela Chauvel <<u>pchauvel@emmconsulting.com.au</u>> wrote:

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Pamela

Pamela Chauvel

Consultant Archaeologist





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us

From: Sent: To: Subject:	Carolyn .H <cazadirect@live.com> Saturday, 19 September 2020 7:48 PM Pamela Chauvel Re: Luddenham Quarry ACHA - draft report (including test excavation results) for comment</cazadirect@live.com>
Follow Up Flag:	Flag for follow up
Flag Status:	Flagged

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INDIGENOUS SEF

Contact: Carolyn Hickey M: 0411650057 E: Cazadirect@live.com A: 10 Marie Pitt Place, Glenmore Park, NSW 2745 ACN: 639 868 876 ABN: 31 639 868 876

Hi, I have reviewed the document and support the Aboriginal Cultural Heritage Assessment Report Kind Regards Carolyn Hickey

From: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Sent: Thursday, 10 September 2020 8:01 AM
To: Ryan Desic <rdesic@emmconsulting.com.au>
Subject: Luddenham Quarry ACHA - draft report (including test excavation results) for comment

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From:	philip khan <philipkhan.acn@live.com.au></philipkhan.acn@live.com.au>
Sent:	Saturday, 3 October 2020 1:17 PM
То:	Pamela Chauvel
Subject:	Re: Luddenham Quarry ACHA - draft report (including test excavation results) for
	comment

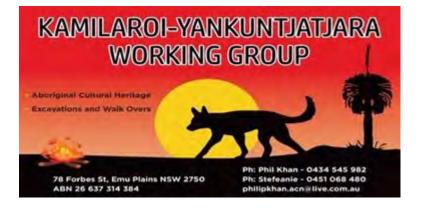
CAUTION: This email originated outside of the Organisation.

Dear Pamela,

I have reviewed your ACHAR for Luddenham Quarry and I agree to your recommendation. I also agree to the artefacts being kept at Gandangara LALC.

Warm Regards

Kadibulla



From: Pamela Chauvel <pchauvel@emmconsulting.com.au>
Sent: Thursday, 10 September 2020 8:01 AM
To: Ryan Desic <rdesic@emmconsulting.com.au>
Subject: Luddenham Quarry ACHA - draft report (including test excavation results) for comment

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From:	Pamela Chauvel
Sent:	Monday, 5 October 2020 5:10 PM
То:	Ryan Desic
Subject:	Comments on draft ACHA for Luddenham Quarry due 8 October 2020

Hi all,

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If you'd like to provide input and haven't done so already, please do so in writing by 8 October 2020.

A link to the draft report is here: <u>https://spaces.hightail.com/receive/UVNu6oOQiU</u>

If you have any questions, please don't hesitate to contact me.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



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 M 0433 398 733
 D 02 9493 9554
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DARUG CUSTODIAN ABORIGINAL CORPORATION

PO BOX 81 WINDSOR 2756 PHONE: 0245775181 FAX: 0245775098 MOBILE: 0452464441 Tylah Blunden 0414962766 Justine EMAIL: <u>tylahblunden97@hotmail.com</u> Justinecoplin@optusnet.com.au

Attention: EMM

Date: 6. 10.2020

Subject: Luddenham Quarry

Dear, Pamela

We have received the Luddenham Advanced Resource Recovery Centre Aboriginal cultural heritage assessment, we would like to add that our sites are a complex and not all separate sites and recommend that the connections are interpreted throughout the project. Information gathered during these projects is of high significance, once our sites are gone there is no other evidence of the sites or connections. This area has shown in recent excavations and surveys that this is a Darug landscape and there are still numerous parts of our histories to be recorded. Darug people stayed in this area to present times, the oral histories of this area support the families staying here for thousands of years.

ES3 Aboriginal consultation

I would like if there was a comment here to state that this site is of high significance to Aboriginal people of this country. I believe why this comment is important to be present under that heading Is because is following heading under 'ES2 Archaeological summary' which states the site to have low Archaeological significance. This could possibly be true, but it is important for the document to acknowledge the high significant immediately before or after Archaeological significance.

As Darug Custodians has stated previously this site is extremely important as our country has been torn apart for 232 years and continues to. At the rate of development there will be no land left for our future children and elders. The artefact scatter present across the site shows that Aboriginal peoples were and still are present across these lands. It is important to remember that all of these sites are connected and not separated into pieces, that was the colonisers doings.

Table ES1 Site significance, impact and management summary

Within the table there is a column that is stated low significance, I am assuming that is for Archaeological significance? There should also be a column stating Cultural significance and value.

Table 2.5 Summary of issues raised by RAPs and how they are addressed

Tylah Blunden is the correct spelling.

3.7 Land use history and disturbance

In this section it would be nice to add the care that Darug people had for the land for 10's of thousands of years.

For the management for the artefacts we support the land council to receive and care for the artefacts. We also support the artefacts being placed in the protected site along the creek that is fenced off.

Within this document the number of groups for consultation is high with many groups not from this area, we do not support personal profit groups and also do not support any input that they have into the recommendations. Apart from the amount of people consulted and the comments provided by Tylah Blunden representing Darug Custodians Aboriginal Corporation we support the summery/ ACHAR and ATR report. Please contact us with all further enquiries on the above contacts.

Regards

gh=

Tylah Blunden

We acknowledge and pay respect to the Darug people, the traditional Aboriginal custodians of this land.

From:	Rodney Gunther <waawaar.awaa@gmail.com></waawaar.awaa@gmail.com>
Sent:	Tuesday, 13 October 2020 1:10 PM
То:	Pamela Chauvel
Subject:	Re: Comments on draft ACHA for Luddenham Quarry due 8 October 2020

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Hi Pamela,

Could you reply back please to this question.

Who made the decision on what RAPs were to be involved and what is your process for procurement for these activities.

Rodney

On Mon, Oct 5, 2020 at 5:10 PM Pamela Chauvel <<u>pchauvel@emmconsulting.com.au</u>> wrote:

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Kind regards,

Pamela

Pamela Chauvel Consultant Archaeologist

T 02 9493 9500



us

- M 0433 398 733
- D 02 9493 9554

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From:	Pamela Chauvel
Sent:	Tuesday, 13 October 2020 5:38 PM
То:	Rodney Gunther
Subject:	RE: Comments on draft ACHA for Luddenham Quarry due 8 October 2020

Dear Rodney,

Thank you for your e-mail. Apologies for not responding to your enquiry sooner, I'm currently on fieldwork with limited access to phone and internet. In response to your questions below.

Unfortunately, on this occasion, we have 19 Aboriginal individuals and/or organisations registered in this project. Given the small field program (3 days), it was not feasible to include the representation of all registered parties, and a smaller number had to be selected for the field component. Ultimately, those included in the field investigation were identified based on: 1) their established history of undertaking cultural heritage management in the Cumberland Plain; 2) their past involvement with the client and/or the project; and/or 3) their strong engagement in the project to date, including communication and responses on the documentation/phone calls, etc – and which included responding to questions specifically on the field program.

Kind regards, Pamela

Pamela Chauvel

Consultant Archaeologist



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02 9493 9500 0433 398 733 02 9493 9554

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Sent: Tuesday, 13 October 2020 1:10 PM
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Subject: Re: Comments on draft ACHA for Luddenham Quarry due 8 October 2020

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M 0433 398 733

D 02 9493 9554

т

Appendix D

Test excavation methodology

17 July 2020



Ground floor, 20 Chandos Street St Leonards NSW 2065 PO Box 21 St Leonards NSW 1590

T 02 9493 9500 E info@emmconsulting.com.au

www.emmconsulting.com.au

Re: Luddenham Quarry ACHA - notification of test excavation and methodology

Dear Sir/Madam,

Thank you for your continued consultation in relation to the Aboriginal cultural heritage assessment (ACHA) for the proposed Advanced Resource Recovery Centre (ARRC) at Luddenham Quarry. EMM Consulting Pty Ltd (EMM) is preparing the ACHA for Coombes Property Group/KLF Holdings.

This letter contains information regarding a proposed program of archaeological test excavation and invites your feedback on the proposed method the content of this letter prior to **31 July 2020.**

1 Background

EMM initially presented proposed assessment methodology for the project to RAPs in May 2020. This outlined that test excavation may be required as part of the project ACHA. EMM stated that the test excavation would follow the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (the Code) (DECCW 2010).

Archaeological survey of the project area and a site meeting was conducted with RAPs on 29 June 2020. During the survey and on-site discussion, all RAPs expressed their support for the possibility of test excavation. Test excavation is proposed in order to assess the potential impact of the project footprint on Aboriginal cultural heritage values and present appropriate management measures if required.

2 Archaeological summary

Desktop research and archaeological survey of the project area has identified the following:

- there are no Aboriginal Heritage Information Management System (AHIMS) sites within the project area. Oaky Creek 1 (#45-5-2280) is a medium density artefact scatter beside Oaky Creek, that was identified in 1991 and is currently fenced off and protected (see attached figure).
- archaeological survey identified that the riparian corridor of Oaky Creek, outside the project area, is the area most likely to have potential archaeological deposit in the subject property; although no Aboriginal cultural material was located during the survey;
- the project area has previously been subject to a range of moderate and high levels of ground disturbance as a result of modern activities. This is especially the case on the southern and eastern boundaries of the project area, where the landscape has been altered significantly by quarrying and other earthworks, stockpiling or waste disposal between 2014 and 2017 and the addition of stormwater retention ponds in the eastern portion of the project area. There is negligible potential for surface and/or subsurface material to be present in the southern and eastern boundaries of the project area; and

• a level, grassed area, within between 100 m and 200 m of Oaky Creek in the project area, has experienced some historic disturbance from de-vegetation and use as a grazing paddock.

3 Test excavation

3.1 Aims

EMM proposes to undertake test excavation within the project footprint in accordance with the Code to collect information about the nature and extent of sub-surface Aboriginal objects. Results of the test excavation will help interpret the Aboriginal history of the local area, assess its significance, and inform mitigation measures for the proposed ARRC development.

While the project area is situated on a single landform, a gentle rise with an easterly aspect sloping towards Oaky Creek, the potential for sub-surface archaeological deposit is likely to have been affected by various levels of historical ground disturbance. Consequently, a map showing areas of low and moderate archaeological sensitivity (see attached figure) within the project area has been developed. The mapping is informed by historical aerial imagery, review of the results of previous archaeological studies in the local area, and landscape observations made during archaeological survey (refer to Sections 3, 5 and 6 of the draft ACHA for more information).

Test excavation aims to establish the distribution of artefact frequencies, site boundaries and/or subsurface artefact concentrations. In order to do this, the focus of the sampling strategy will be in the area of moderate potential (see attached figure), while a small portion of the proposed test excavation program will focus on verifying predictions of low archaeological potential.

3.2 Method

The proposed excavation method will follow the Code (DECCW 2010) and will generally be as follows:

- The test pit transects will follow a grid system. Test pit locations in each transect will be spaced at a minimum of 5 m apart and up to 20 m apart. The exact spacing at each site may vary based on observations in the field and artefact density results as they come to hand.
- The first test pit at each site will be dug manually with hand tools in 5 cm levels termed 'spits' to identify the nature of the soils and to identify any stratigraphic sequence. All subsequent test pits will be excavated in 10 cm spits or in stratigraphic sequence (whichever is smaller).
- Additional test pits will be placed in the area of high disturbance/low potential.
- Test pits will be 50 cm x 50 cm.
- Each pit will be excavated until basal clay is reached, or to at least one spit (10 cm) below the artefact bearing level identified at each test area.
- All material excavated from the test pits will be wet sieved on site during the excavation programme using a 5 mm mesh sieve.
- Photographic and scale-drawn records of the stratigraphic soil profile of the test pits will be made.
- Test pits will be backfilled after recording.

The excavation supervisor will determine the specific number and location of test pits depending on results gathered during excavation. Test pits marked along transects may be terminated if conditions warrant such change. Additional test pits may be dug to clarify the local artefact distribution. These decisions will be made

by the supervising archaeologist in the field based on the archaeological results as they come to hand; however, such deviations from the intended work-plan will only be adopted in compelling circumstances.

4 Objects recovered during test excavation

The temporary location for the storage of artefacts will be in a lockable room at EMM's Sydney Office:

Ground Floor, Suite 1 20 Chandos Street St Leonards NSW 1590

Artefacts will eventually be stored in an agreed keeping place or returned to country as agreed by RAPs. All excavated artefacts will be transferred back to the general area at the earliest reasonable opportunity.

5 Artefact analysis

Basic recording and analysis will be undertaken for the artefact assemblage recovered from the test excavation with the aim to form a baseline characterisation of the excavated material. Analysis of excavated stone artefacts will include:

- initial sorting and cleaning of excavated material;
- establishment of a computer database using Microsoft Access or Microsoft Excel (depending on the size of the assemblages) to record all provenance information;
- measuring and recording the attributes of stone artefacts; and
- statistical analysis of the data to explore the frequency, distribution, raw material type, implement type and size of the of the artefacts in the assemblage.

6 Test pit analysis

Landscape and soil information is important in understanding the integrity, nature, and distribution of the archaeology. Provenance analysis includes the recording, drawing and analysis of soil profiles to inform the integrity and potentially the date of the archaeological record.

7 Reporting

Aboriginal Heritage Information Management System (AHIMS) site cards will be completed for each Aboriginal site and an Aboriginal Site Impact Recording Form prepared for each site impacted by the test excavation (if applicable).

The results of the test excavation will be included in an updated ACHA and provided to RAPs for review.

8 Timeline

We propose the following indicative timeframes for the project. Please note that these timeframes are indicative only and may be subject to change as the assessment progresses.

Task	Indicative timeframe
Distribution of proposed methodology (this document)	17 July 2020. Comments requested by 31 July 2020.
Distribution of draft ACHA to RAPs	17 July 2020. Comments requested by 14 August
Test excavation	Mid August
Distribution of the draft ACHA (updated with test excavation results) to RAPs for review	Mid September (28-day review timeframe)

9 Information sought from RAPs

We welcome your feedback on the content of this letter by **31 July 2020.**

When providing a response, please consider any of the following where appropriate:

- any protocols that you would like adopted during the project;
- identification of any Aboriginal objects of cultural significance and/or importance that you are aware of within the study area, and how you wish them to be dealt with as part of this assessment; and
- guidance on the protocols, sensitivity, use and/or distribution of any cultural information that you provide to EMM as part of this assessment; and
- whether you require any further information prior to EMM proceeding.

9.1 Closing

Thank you for your time. We appreciate the opportunity to consult with RAPs to decide on the most appropriate assessment methods. We will be contacting RAPs shortly with further details about fieldwork, including a fieldwork roster and logistics. If you have any queries regarding the content of this letter, please do not hesitate to contact me on my details below.

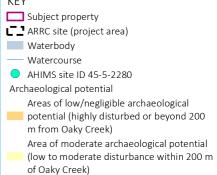
Yours sincerely

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GDA 1994 MGA Zone 56 N

Archaeological potential

Luddenham Advanced Resource Recovery Centre Aboriginal Cultural Heritage Assessment Figure 7.1 creating opportunities