Cooma Future Subdivision Development Project:

Precinct 2 (Lot 2 and 4 in DP 1285072) & Precint 3 (Lot 3 in DP 1285072) Polo Flat Rd, Cooma NSW

Due Dilligence Assessment

Report to:

New South Wales Aboriginal Land Council

Final-October 2022





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Project Name Cooma Due Diligence

Project Reference Number 129 - 163

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EXECUTIVE SUMMARY

Lantern Heritage have been commissioned by the New South Wales Aboriginal Land Council to undertake a due diligence assessment as part of preparations for a development application (DA) for subdivisions of land at Polo Flat Road, Cooma, NSW. The Site is shown below (Figure 1) with Precinct 2 (defined as Lot 2 and 4 in DP 1285072) and Precinct 3 (defined as Lot 3 DP 1285072) being the two land parcels requiring the Aboriginal Heritage Advice and assessment. The scope will also include any areas or corridors required for road widening and or lead-in servicing:

This Due Diligence assessment is designed to determine whether the proposed activity is likely to result in harm, or impacts, to Aboriginal cultural heritage.

This report documents the due diligence process that has been undertaken with respect to the scope of works provided by New South Wales Aboriginal Land Council. It has been prepared in accordance with the Heritage, NSW Department of Premier and Cabinet (Heritage NSW – formerly DECCW) Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales (Department of Environment, Climate Change and Water, 2010a). This report has been compiled in accordance with the Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance (Australia ICOMOS, 2013).

The steps involved in the due diligence process are outlined in Figure 2. The result of Step 1 of the due diligence process was that the proposed activity is likely to cause ground disturbance. As such it was necessary to proceed to Step 2 of the due diligence process.

The result of Step 2 of the due diligence process was that the proposed activity area corresponds to landscape features that may contain Aboriginal objects (low ridgeline overlooking alluvial environment). As such it was necessary to proceed to Step 3 of the due diligence process.

Step 3 of the due diligence process determined that it is unlikely that harm can feasibly be avoided to all landscape features likely to indicate the presence of Aboriginal objects. As such it was necessary to proceed to Step 4 of the due diligence process.

Desktop assessment and predictive model

The desktop component of Step 4 concluded that, there are no known Aboriginal sites within the proposed activity area. However, it was also predicted that the low hill in the activity area corresponds to a landform with:

- , moderate potential for stone artefact scatters;
- low potential for intact subsurface archaeological deposits;
- low potential for burials, and
- low potential for other site types such as stone arrangements, ceremonial sites, hearths.

Visual assessment and field survey



Visual inspection of Precincts 2 and 3 was conducted on 07/04/2022 by Clive Freeman and Peter Markovicz, Lantern Heritage Pty Ltd, in partnership with representatives from Merriman's LALC.

The visual inspection involved a pedestrian survey along the entire area of the proposed subdivision. Areas of ground exposure within and adjacent to the proposed activity area were sought out, but survey visibility was less than 10% due to thick vegetation throughout all of the study area, except the very top of the low hill. This made visual assessment of the study area extremely difficult and representatives from Merriman's LALC suggested that, by conducting a cultural burn of the vegetation in this area, they could improve visibility, allowing for a more effective survey in advance of development.

Because of environmental legislation, a cultural burn was rendered impractical. Instead, a number of 5 m by 5 m areas of vegetation were slashed, to allow better survey coverage of the study area. A second visual inspection of Precincts 2 and 3 was conducted on 25/08/2022 by Conor McAdams and Christine Gant-Thompson, in partnership with representatives from Merrimans LALC.

Across much of the study area, visibility remained < 10%, due to the fine grass which obscured the ground surface even after slashing. While this impacted survey coverage to an extent, across much of the site soils were found to be the thin, rocky soils that are typical of slopes in this region. No artefacts were found during the survey and, combined with the exposures that were provided by erosive features, slashing and vehicle tracks, the study area can be understood as having low-moderate archaeological potential, with some areas of thin, rocky soil on the slopes having very low archaeological potential, due to the extent of their erosion.

The deposit of colluvial material at the base of the low hill in Precinct 3 (Survey Unit 4) is the highest potential area that was detected within the study area. Glenn Campbell from Merriman's LALC has indicated that, although desktop and visual assessment indicate a relatively low chance of disturbing archaeological material in this area, he has found Aboriginal cultural material in similar settings within the Cooma area. Merriman's LALC have suggested having a representative monitoring the portions of the work that disturb ground in this area as a way of mitigating any potential damage to Aboriginal cultural heritage values.

Summary and Recommendations

On the basis of this due diligence assessment, the archaeological potential of the study area is low-moderate, with some areas of very low archaeological potential found on the eroded soils of the hill slopes. Based on the results of our survey, proposed works at Polo Flat Road, Cooma, are unlikely to harm Aboriginal artefacts. But the colluvial deposit at the base of the slope in Precinct 3 retains the highest archaeological potential of any portion of the study area and representatives from Merriman's LALC believe there is some potential to harm Aboriginal artefacts in this area.

Representatives from Merriman's LALC have proposed having a representative monitoring ground disturbing activities in the area of the colluvial deposit at the base of the slope in Precinct 3, as a way of mitigating any potential harm to Aboriginal cultural heritage values.



The following recommendations have been formulated on the basis of the desktop review and visual assessment documented above:

- a) Proposed works across the study area, in both Precinct 2 and Precinct 3, may proceed with caution.
- b) Monitoring should be carried out by a representative of Merriman's LALC, during works that disturb the ground surface in the area of the colluvial deposit at the base of the slope in Precinct 3, as a way of mitigating any potential harm to Aboriginal cultural heritage values.
- c) This due diligence assessment only covers the works outlined in section 2 of this report. If additional impacts or alternative alignments are proposed, further assessment will be required.
- d) A copy of this report, and any subsequent due diligence investigations, should be kept on record, and if requested, supplied to the relevant government agency as proof of compliance with the *Due Diligence Code of Practice*.



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1 PROJECT OVERVIEW

1.1 Introduction

Lantern Heritage have been commissioned by the New South Wales Aboriginal Land Council to undertake a due diligence assessment as part of preparations for a development application (DA) for subdivisions of land at Polo Flat Road, Cooma, NSW. The Site is shown below (Figure 1) with Precinct 2 (defined as Lot 2 and 4 in DP 1285072) and Precinct 3 (defined as Lot 3 in DP 1285072) being the two land parcels requiring the Aboriginal Heritage Advice and assessment. The scope will also include any areas or corridors required for road widening and or lead-in servicing:

This report documents the due diligence process that has been undertaken, with respect to the work proposed for the future subdivision development on that land. It has been prepared in accordance with the NSW Office of Environment and Heritage *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (Department of Environment, Climate Change and Water, 2010a). This report has been compiled in accordance with the *Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (Australia ICOMOS, 2013).



Figure 1: Site plan showing precincts that will be included in Development Application (DA) at Polo Flat Road, Cooma, NSW.



1.2 Legislative Framework

1.2.1 National Parks and Wildlife Act 1974

The *National Parks and Wildlife Act 1974* (as amended), administered by the Office of Environment and Heritage (OEH), is the primary legislation for the protection of Aboriginal cultural heritage in New South Wales. Part 6 of the NPW Act provides specific protection for Aboriginal objects and declared Aboriginal places by establishing offences of harm.

Table 1 summarises those offences and their associated penalties. However, if due diligence is exercised, this is a defence against prosecution for the strict liability offence, in the event that an Aboriginal object is later unknowingly harmed without an Aboriginal Heritage Impact Permit (AHIP).

Offence	Maximum Penalty: Individual	Maximum Penalty: Corporation
A person must not harm or desecrate an Aboriginal object that the person knows is an Aboriginal object.	2,500 penalty units (\$275,000) or imprisonment for 1 year 5,000 penalty units (\$550,000) or imprisonment for 2 years or both (in circumstances of aggravation)	10,000 penalty units (\$1,100,000)
A person must not harm or desecrate an Aboriginal object (strict liability offence).	500 penalty units (\$55,000) 1,000 penalty units (\$110,000) (in circumstances of aggravation)	2,000 penalty units (\$220,000)
A person must not harm or desecrate an Aboriginal Place (strict liability offence).	5,000 penalty units (\$550,000) or imprisonment for 2 years or both	10,000 penalty units (\$1,100,000)
Failure to notify DECCW of the location of an Aboriginal object (existing offence and penalty)	100 penalty units (\$11,000). For continuing offences a further maximum penalty of 10 penalty units (\$1,100) applies for each day the offence continues.	200 penalty units (\$22,000). For continuing offences a further maximum penalty of 20 penalty units (\$2,200) applies for each day the offence continues

Table 1: Offences and penalties for harming or desecrating Aboriginal objects and declared Aboriginal Places (DECCW 2010b)



Contravention of any condition of an Aboriginal Heritage Impact Permit	1,000 penalty units (\$110,000) or imprisonment for 6 months, or both, and in the case of a continuing offence a further penalty of 100 penalty units (\$11,000) for each day the offence continues	2,000 penalty units (\$220,000) and in the case of a continuing offence a further penalty of 200 penalty units (\$22,000) for each day the offence continues
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1.2.2 Due Diligence Code of Practice

The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in New South Wales* (DECCW, 2010a) details the process that needs to be implemented in order to determine whether or not proposed activities may harm Aboriginal objects. The following is an excerpt from the *Due Diligence Code of Practice* (DECCW, 2010a) that outlines the purpose of the code.

The *National Parks and Wildlife Act 1974* (NPW Act) provides that a person who exercises due diligence in determining that their actions will not harm Aboriginal objects has a defence against prosecution for the strict liability offence if they later unknowingly harm an object without an AHIP.

The NPW Act allows for a generic code of practice to explain what due diligence means. Carefully following this code of practice, which is adopted by the National Parks and Wildlife Regulation 2009 (NPW Regulation) made under the NPW Act, would be regarded as 'due diligence'. This code of practice can be used for all activities across all environments.

This code sets out the reasonable and practicable steps which individuals and organisations need to take in order to:

- identify whether or not Aboriginal objects are, or are likely to be, present in an area;
- 2. determine whether or not their activities are likely to harm Aboriginal objects (if present), and
- 3. determine whether an AHIP application is required.

If Aboriginal objects are present or likely to be present **and** an activity will harm those objects, then an AHIP application will be required.

By following the *Due Diligence Code of Practice* proponents can reach a reasonable determination as to whether or not Aboriginal objects will be harmed by their proposed activity, whether further investigation is warranted and whether or not an AHIP will be required.



1.2.3 Aboriginal Consultation

Consultation with the Aboriginal Community is not formally required as part of the due diligence process. The decision as to whether or not to implement consultation as part of the due diligence process lies with the proponent. However, if at any point an application is made for an AHIP, then the consultation must be undertaken in accordance with the requirements in cl.80C of the *National Parks and Wildlife Regulation 2009*.

1.3 Due Diligence Process

The due diligence process comprises up to five separate steps that will determine whether or not an AHIP is required for a given activity. Figure 2 provides an overview of the due diligence process. Additional details regarding each step are outlined below.

1.3.1 Step 1: Will the activity disturb the ground surface?

The first step in the due diligence process is to determine whether the proposed activity will disturb the ground surface or any culturally modified trees. Essentially, if there will be ground disturbance (e.g. digging, grading, bulldozing, scraping, ploughing or drilling), or if mature vegetation will be removed, then the potential exists for harm to Aboriginal objects, so the next step in the due diligence process should be implemented.

However, if the proposed activity will not disturb the ground surface or any culturally modified trees, then the activity can go ahead, with caution, without applying for an AHIP.





Figure 2: The generic due diligence process (DECCW, 2010a).



1.3.2 Step 2: Are there previously recorded sites, or landscape features likely to indicate presence of Aboriginal objects?

There are two components to the second step in the due diligence process:

a) determining if there are previously recorded sites in the activity area, and

b) determining if the activity area includes landscape features that are likely to indicate the presence of Aboriginal objects.

The first component of this step involves searching the OEH Aboriginal Heritage Information Management System (AHIMS) to check for the presence of previously registered sites within the activity area. It also involves checking for whether or not previous studies have been conducted across the activity area, or part thereof. If there are previous investigations, then it is also necessary to check whether or not those investigations identified any Aboriginal objects, or the potential for such objects within the proposed activity area.

Regardless of the outcome of the searches for previously recorded Aboriginal objects, it is also necessary to review the landscape features present within the activity area, and assess whether or not Aboriginal objects are likely to be present within those features.

If the proposed activity is:

- within 200m of any part of: any river, stream, lake, lagoon, swamp, wetlands, natural watercourse, tidal waters (including the sea), or
- located within a sand dune system, or
- located on a ridge top, ridge line or headland, or
- , located within 200m below or above a cliff face, or
- within 20m of or in a cave, rock shelter, or a cave mouth; and
- is on land that is not disturbed¹, then the next step in the due diligence process must be implemented.

However, if after completing a search of AHIMS, a review of previous investigations and a review of the landscape features in the activity area, it is concluded that there are no known Aboriginal objects and no landscape features likely to indicate the presence of Aboriginal objects, then the activity can go ahead, with caution, without applying for an AHIP.

1.3.3 Step 3: Can harm be avoided to the object or disturbance of the landscape feature?

The third step in the due diligence process is implemented when there are known Aboriginal objects present in the activity area, and/or the activity area includes landscape features likely to indicate the presence of Aboriginal objects, on land that is not disturbed. This step involves an assessment of whether or not the activity area can be modified to avoid harm to

¹ Land is disturbed if it has been the subject of a human activity that has changed the land's surface, being changes that remain clear and observable.



known Aboriginal objects and/or landscape features likely to indicate the presence of Aboriginal objects.

For example, harm may be avoided through reducing the extent of the activity area, relocating the activity area, or modifying the proposed activity to avoid ground disturbance or vegetation removal.

If the activity cannot be modified in such a way as to avoid **all** harm to known Aboriginal objects and **all** disturbance to landscape features likely to indicate the presence of Aboriginal objects, then the next step in the due diligence process **must** be implemented.

However, if harm can be avoided to **all** known Aboriginal objects and landscape features likely to indicate the presence of Aboriginal objects, then the activity can go ahead, with caution, without applying for an AHIP.

1.3.4 Step 4: Desktop assessment and visual inspection

The fourth step in the due diligence process is implemented when harm cannot be avoided to known Aboriginal objects and/or disturbance to landscape features likely to indicate the presence of Aboriginal objects. This step involves a desktop assessment and a visual inspection of the activity area.

The desktop assessment involves collation and review of any readily available information from previous cultural heritage studies, archaeological investigations and previously recorded Aboriginal sites across the broader area. It must include the proposed activity as a whole, not just particular areas where Aboriginal objects have been recorded or areas where landscape features, likely to indicate the presence of Aboriginal objects, are located.

Visual inspection must also be conducted in order to determine if Aboriginal objects can be identified within the activity area, or if they are likely to be present below the surface. The visual inspection must be done by a person with expertise in locating and identifying Aboriginal objects (e.g. a consultant with appropriate qualifications and training).

If the desktop assessment or the visual inspection identifies the presence of Aboriginal objects in the activity area, **or** the likelihood of Aboriginal objects being present, more detailed investigation and impact assessment will be required. In which case, the next step in the due diligence process **must** be implemented.

However, if the desktop assessment and the visual assessment do not identify the presence, or likely presence, of Aboriginal objects, then the activity can go ahead, with caution, without applying for an AHIP.

1.3.5 Step 5: Further investigations and impact assessment

The fifth step in the due diligence process is the implementation of a detailed investigation and impact assessment. This step is implemented when the desktop assessment and visual investigation confirm the presence, or likely presence, of Aboriginal objects within the proposed activity area.

Detailed investigation and impact assessment must be conducted in accordance with OEH guidelines regarding archaeological investigations (DECCW, 2010b) and the process of



investigating and reporting on Aboriginal cultural heritage (Office of Environment and Heritage, 2011).

If the detailed investigation and impact assessment determines that harm will occur to Aboriginal objects, then an AHIP application **must** be made.

All AHIP applicants **must** undertake Aboriginal community consultation in accordance with clause 80C of the NPW Regulation (DECCW, 2010c). Consultation may also be followed when a cultural heritage assessment is undertaken and there is uncertainty about potential harm.

1.3.6 If the due diligence process does not identify that an AHIP application is necessary

If after completing the due diligence code of practice process it has reasonably been determined that an AHIP application is not necessary, because Aboriginal objects are not present or, if they are present, harm to those objects can be avoided, then the activity can go ahead with caution.

However, if an Aboriginal object is found while undertaking the activity, work **must** stop and OEH **must** be notified. In that instance, pending advice from OEH, an AHIP may be required before work can resume. Further investigation may also be required, depending on the type of Aboriginal object that is found.

In the event that human skeletal remains are found during the activity, work **must** stop immediately, the area **must** be secured, and the NSW Police and OEH **must** be notified.

As summarised in Table 1, if an Aboriginal object is found that is not already recorded on AHIMS, there is a legal obligation under s.89A of the NPW Act to notify OEH as soon as possible of the object's location. This applies to all people in all situations, including when following the due diligence code of practice.



2 STEP 1 – WHAT IS THE PROPOSED ACTIVITY?

2.1 Overview of the proposed activity

The State of NSW is proposing a land subdivision on Polo Flat Rd to increase housing opportunities within the Cooma area. As a result of this plan LAHC have sought Aboriginal Heritage advice to support a future subdivision development application on land on Polo Flat Rd, Cooma, NSW.

The project site is shown below with Precincts 2 and 3 being the two land parcels requiring the Aboriginal Heritage Advice and assessment. The scope will also include any areas or corridors required for road widening and or lead-in servicing.

The proposed development of both sites (Lots 2 and 3) will be in accordance with the relevant development consent for the subdivision of the land.

The activities to be undertaken include but not limited to are:

- Site serviceability due diligence
- Developable area investigations
- Civil design
- Urban design
- Earthworks
- Roadwork design
- Stormwater systems
- Stormwater management
- Sewerage systems
- Water reticulation
- Inspections of contractors work during construction
- Subdivision certificate and registration of individual titles

2.2 Will the proposed activity disturb the ground surface?

As outlined above, the proposed works will involve a large degree of ground disturbance and/or land surface modification within Precincts 2 & 3.

2.3 Step 1 Summary

The result of Step 1 of the due diligence process is that the proposed activity is likely to cause ground disturbance. As such it is necessary to proceed to Step 2 of the due diligence process.



3 STEP 2 – REVIEW OF HERITAGE REGISTERS AND LANDSCAPE FEATURES

3.1 AHIMS site search

An extensive site search was conducted via AHIMS on the 13/04/22 (AHIMS Search # 675525), covering following area: GDA Zone 55, Easting: 680000.0-705000.0, Northings: 5970000.0 - 6010000.0.

One Hundred & four (104) sites or objects were listed as being present within the search area and one Aboriginal Place (Table 2; **Error! Reference source not found.**). Two of the sites (AHIMS#62-2-0336 and AHIMS#62-2-0350) are restricted, which means the cultural information associated with them is considered too sensitive to include on the AHIMS database by Aboriginal community members. Table 2 provides a list of the 102 unrestricted sites present in the search area, including site names and features, while

provides an overview of frequency of site types. The majority (77) of the sites are open camp sites (artefact scatters) and a further 11 are isolated artefacts. Only one site with PAD was found, due to the eroded nature of soils in this hilly environment. A variety of other site types, however, exists in this area, including quarries (7), resource and gathering sites (1), hearth (1) and ceremonial sites (4).

AHIMS #	Site Name	Site Type/Features
62-2-0354	The River 3 and PAD (TR3)	Open Camp Site
62-2-0352	The River (TR1)	Isolated Find
62-2-0402	Bidgee Road 1	Open Camp Site
62-2-0398	Meroo	Aboriginal Resource and Gathering
62-2-0365	KA 2 (Kiah Avenue 2)	Isolated Find
62-2-0231	Cooma Sewerage 2	Open Camp Site
62-2-0214	Cooma Sewerage 1	Open Camp Site
62-2-0384	Harnett 12	Open Camp Site
62-2-0381	Harnett 5	Open Camp Site
62-2-0336	Restriction applied. ²	
62-2-0038	Ch 3;	Open Camp Site
62-2-0288	MOULD 2;	Open Camp Site
62-2-0413	Cooma Transmission Line Isolated Find 1 (CTL IF1)	Open Camp Site
62-2-0369	CBCA 4 (Comma Back Creek 4)	Open Camp Site
62-2-0213	Cooma Sewerage 1	Open Camp Site
62-2-0400	Doghead Ridge	Aboriginal Ceremony and Dreaming
62-2-0397	Mullian Range North Ridge Fire Site	Hearth
62-2-0374	Church Hill SU1	Open Camp Site
62-2-0386	Church Hill SU1 North Cooma	Open Camp Site
62-2-0238	EGP 2-28	Open Camp Site

Table 2: Summary of AHIMS search results

² Please contact ahims@environment.nsw.gov.au

AHIMS #	Site Name	Site Type/Features
62-2-0372	Hartnett 1	Open Camp Site
62-2-0373	Hartnett 2	Open Camp Site
62-2-0030	Bunyon To Cowra Creek 7	Quarry
62-2-0012	RC6 Numeralla River	Open Camp Site
62-2-0287	Mould 1	Open Camp Site
62-2-0043	Ch 10	Open Camp Site
62-2-0353	The River 2 (TR2)	Open Camp Site
62-2-0368	CBCA 3 (Comma Back Creek 3)	Open Camp Site
62-2-0348	Shelton	Isolated Find
62-2-0232	Cooma Sewerage 3	Open Camp Site
62-2-0045	Old Schoolhouse	Open Camp Site
62-2-0327	Lambie Gorge 1	Open Camp Site/PAD
62-2-0242	EGP 2-32	Open Camp Site
62-2-0244	EGP 2-34	Quarry
62-2-0240	EGP 2-30	Quarry
62-2-0321	MER1	Open Camp Site
62-2-0032	Bunyan 10 Cowra Creek 1	Open Camp Site
62-2-0379	Harnett 11	Open Camp Site
62-2-0022	Bunyan	Open Camp Site
62-2-0026	Bunyan To Cowra Creek 3	Quarry
62-2-0035	Chakola Quarry;Sunny Side	Quarry
62-2-0286	Dodds Ck	Open Camp Site
62-2-0040	Ch 5	Open Camp Site
62-2-0008	RC2 Numeralla River	Open Camp Site
62-2-0042	Ch 7	Open Camp Site
62-2-0356	The River 5 (TR5)	Isolated Find
62-2-0403	Bidgee Road 2	Open Camp Site
62-2-0370	CBCA 5 (Comma Back Creek 5)	Open Camp Site
62-2-0334	MR1 (Cooma)	Open Camp Site
62-2-0243	EGP 2-33	Open Camp Site
62-5-0104	MER.3	Isolated Find
62-2-0385	Harnett 13	Open Camp Site
62-2-0002	Rock Flat;Avoca	Open Camp Site
62-2-0339	Cooma Wind Farm 2 - (CWF2)	Open Camp Site
62-2-0037	Ch 2;Hill To	Open Camp Site
62-2-0236	EGP 2-26	Open Camp Site
62-2-0044	Ch 11	Open Camp Site
62-2-0039	Ch 4	Open Camp Site
62-2-0041	Ch 6	Open Camp Site
62-2-0006	Muddah Lake	Open Camp Site
62-2-0399	Mt Gladstone	Aboriginal Ceremony and Dreaming
62-2-0364	KA 1 (Kiah Avenue 1)	Open Camp Site
62-2-0396	North Ridge	Aboriginal Ceremony and Dreaming
62-2-0335	Murrells Crossing	Open Camp Site
62-2-0239	EGP 2-29	Open Camp Site
62-2-0377	Harnett 8	Isolated Find

AHIMS #	Site Name	Site Type/Features
62-2-0375	Harnett 3	Open Camp Site
62-2-0028	Bunyan To Cowra Creek 5	Open Camp Site
62-2-0047	none	Open Camp Site
62-2-0013	RC7	Open Camp Site
62-2-0355	The River 4 and PAD (TR4)	Open Camp Site
62-2-0001	Cooma Creek	Open Camp Site
62-2-0237	EGP 2-27	Open Camp Site
62-2-0380	Harnett 4	Open Camp Site
62-2-0376	Harnett 7	Open Camp Site
62-2-0378	Harnett 9	Open Camp Site
62-2-0323	EGP,2-31	Open Camp Site
62-2-0383	Harnett 10	Open Camp Site
62-2-0433	RFQ1	Open Camp Site
62-2-0027	Bunyan To Cowra Creek 4	Quarry
62-2-0031	Bunyan To Cowra Creek 2	Open Camp Site
62-2-0007	RC1 Numeralla River	Open Camp Site
62-2-0289	MOULD 3	Isolated Find
62-2-0367	CBCA 2 (Comma Back Creek 2)	Open Camp Site
62-2-0371	Cooma Back Creek	Open Camp Site
62-2-0401	Lambie Gorge	Aboriginal Ceremony and Dreaming
62-2-0337	C 1	Isolated Find
62-2-0382	Harnett 6	Open Camp Site
44-4-0265	MER2	Open Camp Site
62-2-0241	EGP 2-31	Open Camp Site
62-2-0434	RFQ2	Isolated Find
62-2-0036	Spring Downs Quarry;Spring Downs	Quarry
62-2-0034	Ch 1;Sunny Side	Open Camp Site
62-2-0029	Bunyan To Cowra Creek 6	Open Camp Site
62-2-0350	Restriction applied. ³	
62-2-0010	RC4 Numeralla River	Open Camp Site
62-2-0366	CBCA 1 (Comma Back Creek 1)	Open Camp Site
62-2-0428	Cooma Transmission Line Artefact Scatter 2 (CTL AS2)	Open Camp Site
62-2-0351	Shelton-a	Open Camp Site
62-2-0009	RC3 Numeralla River	Open Camp Site
62-2-0046	none	Open Camp Site
62-2-0290	MOULD 4	Isolated Find
62-2-0011	RC5 Numeralla River	Open Camp Site
62-2-0338	Cooma Wind Farm 1	Isolated Find

³ Please contact ahims@environment.nsw.gov.au.





Figure 3: AHIMS sites plotted on a terrain map to show correlation between occupation and permanent water to the north of the study area, and occupation and higher ground on valley sides to the east and west



Table 3: Overview of previously recorded site types within the AHIMS search area.

Site types	Total
Open Camp Site	77
Isolated Find	11
Quarry	7
Aboriginal Ceremony and Dreaming	4
Open Camp Site/PAD	1
Hearth	1
Aboriginal Resource and Gathering	1
Restricted	2
Total	104

3.2 NSW State Heritage Register and Inventory search

A search was made of the NSW State Heritage Register and State Heritage Inventory on 25th of May 2022, No Aboriginal places or places with identified Aboriginal cultural values are listed on either the State Heritage Register or the State Heritage Inventory within the proposed activity area.

3.3 Review of landscape features

The study area is situated at an elevation of approximately 800-840m AHD⁴. It comprised of a low, undulating ridgeline in the centre of the property which slopes gently downwards to the north (Error! Reference source not found.). In the southwest of the property this levels out to undulating land associated with an ephemeral watercourse (a minor tributary of the "mostly perennial" Cooma Creek that is a tributary of the Murrumbidgee; Error! Reference source not found.; Figure 4).

This area is part of a wider (Mitchell) landscape (Figure 5) called the Monaro Plains Basalts and Sands (Mitchell 2002). This landscape is characterised by extensive tablelands and rolling hills, formed on Tertiary basalts, with associated sub-basaltic sands and gravel of the pre-eruption land surface. The geology of the surrounding area is extremely complex (Figure 6), with a long history of volcanism and subsequent metamorphism related to the Lachlan Orogen. Substantial Tertiary and Quaternary sediment bodies are also present.

Elevation in the area ranges from 600 to 950m (Mitchell, 2002), with local relief of less than 100 m and relatively poorly developed dendritic drainage patterns (such as we see in the study area). This is a low rainfall (400-600 mm) environment with high frost frequency. Heavy red-brown to black sticky uniform clay soils are common, but lighter textured red brown loams and occasional yellow-brown texture-contrast soils are associated with exposed sands.

Plant communities form treeless grasslands, with a high proportion of exotic grasses and herbs. Wet tussock with sedges and rushes characterises poorly drained flats, with wallaby grass (Austrodanthonia sp.) at lower elevations (Mitchell, 2002).

⁴ Australian Height Datum





Figure 4: Topographic map of study area showing intermittent watercourse in southwest extent









Figure 5: Mitchell Landscapes surrounding the study area





Figure 6: Geology of the study area and surroundings. Data from <u>NSW Seamless Geology</u> <u>Data.NSW</u>



3.4 Step 2 summary

There are no previously recorded sites listed within the proposed activity area. It is important to note that in the surrounding area, archaeological sites are more likely to be located on the higher ridgelines (Error! Reference source not found.). But it is impossible to rule out the presence of Aboriginal objects at this location on a landform basis. Furthermore, subsurface disturbance or land surface modification across the activity area is variable and includes areas of low to moderate prior disturbance.

The result of Step 2 of the due diligence process is that the proposed activity area may include areas of undisturbed land and the presence of Aboriginal objects cannot be ruled out. As such it is necessary to proceed to Step 3 of the due diligence process.



4 STEP 3 – CAN HARM BE AVOIDED?

Given the constraints regarding the proposed development, the nature of the topography and the environmental context across the proposed activity area, it does not appear that harm can feasibly be avoided to all landscape features that retain the possibility of containing of Aboriginal objects. As such it is necessary to proceed to Step 4 of the due diligence process.



5 STEP 4A – DESKTOP ASSESSMENT

The desktop component of the assessment includes a review of previous archaeological and cultural heritage investigations in the local region, together with reviews of the existing model of site location, and available mapping for the study area. The results of this review are then presented in terms of the implications for the proposed activity area.

5.1 Aboriginal occupation of Australia

Aboriginal occupation of Australian extends back well into the Pleistocene. Current theories place the arrival of humans to Sahul between 47,000 years before present (BP) and 65,000 BP (O'Connell and Allen 2004, 2015; Allen and O'Connell 2014; Clarkson et al., 2017, O'Connell et al., 2018). While debate continues regarding the earliest arrival in Australia, there is general agreement that all environmental zones across the continent were colonised by around 35,000 BP (Mulvaney and Kamminga 1999). Since that time there has been substantial climatic variation, which has influenced choices people made regarding the locations they lived.

5.2 Previous investigations of Aboriginal archaeology

The survey area falls within a region known as the Monaro tablelands and is situated within the southern highlands of NSW. It has been the subject of investigation for various academic research projects and cultural heritage management studies. The following summary highlights some of the relevant research findings within the local area, followed by a summary of research in and around Cooma.

Djekic (1982) An Archaeological survey of the route of the Cooma-Jindabyne 66kv transmission line – Final report to the NSW Parks and wildlife service and electricity commission of NSW AHIMS#282

This report details an archaeological survey of the route of the Cooma to Jindabyne 66kv electricity transmission line, which stretches across a significant portion of the Australian Alps, providing a sample of the types of environments that surround the study area. Construction of this line involved creation of a 30 m easement that would contain the wooden posts. Twelve sites located, consisting of 6 scarred trees and 6 lithic sites (only located due to recent ground exposures e.g. clearing/grading). Four of the lithic sites were located in the Snowy River/Jindabyne region. The results of this survey tend to support previous archaeological work that suggests the region was occupied late, and that occupation was concentrated in the river valley areas. The construction of the transmission line was not seen to pose a "major problem to the archaeology of the region." The authors recommended that ground disturbance be kept to a minimum, particularly near water courses and stated that NPWS should be contacted if further archaeological remains were uncovered. They made a series of site specific suggestions, which included lopping the upper extent of scarred trees to avoid issues with electricity cables. The authors also collected an isolated artefact from Site 6.

Wellington (1992) Archaeological Survey of a proposed Crown Road at Chakola, Near Cooma, NSW. AHIMS #2372



This report details a survey carried out in advance of a crown road development, over a length of approximately 1.4 km at Chakola, near Cooma. This area is to the north of the current study, in the area of alluvial sediments associated with the Upper Murrumbidgee Mitchell Landscapes that surround Cooma Creek (Figure 5). One artefact scatter and one isolated find were found during the course of the survey, and it was determined that proposed works would destroy approximately 6% of the site, by area, but 25% of the estimated artefact assemblage, because development would directly impact the area of the site where artefact concentration is highest. It was stated that the sites moderate significance would only be partially impacted, thus the intrinsic values would be maintained. The author notes the evidence of erosion in the area, attributed to historical landuse, and explains the lack of subsurface deposits with reference to these factors. The recommendations included measures related to road construction and use of machinery that would minimise harm to the sites, as well as obtainment of a Consent to Destroy for the portions of the site that could not be avoided.

Saunders (2005) Proposed residential subdivision Lot 8 DP 262883, Kiah Avenue, Cooma, NSW AHIMS #49407

This archaeological assessment was conducted to support a Development Application to Cooma-Monaro Shire Council, for a proposed 1.2 ha standard residential subdivision. While this may seem like a good analogue for the study area, it is in fact located on an area of higher ground to the West, on the Monaro Plains Granites, which is associated with a greater density of sites (Error! Reference source not found., Figure 4, page 15). One small Aboriginal site (KA 1) was found in a disturbed area near the eastern boundary of the proposed subdivision adjacent to Kiah Avenue. This site was deemed to have low archaeological significance at a local level, but is considered culturally significant to the local Aboriginal community. No European sites were found within the proposed subdivision. While the site was not considered to pose any long-term constraints to the proposed subdivision, the author stated that Merrimans LALC may wish to salvage the artefacts prior to development impact. They stated the necessity of obtaining a Section 90 Consent to Destroy, in advance of any impacts.

Williams and Czastka (2005). Aboriginal Heritage Assessment – Buckenderra Holiday Village, Lake Eucumbene, Snowy River Shire, NSW. AHIMS #99585

This report is part of a wider statement of environmental effects, related to the development of Buckenerra Holiday Village on the foreshore of Lake Eucumbene, approximately 30 km west of the current study area. The study area was focussed on the creation of a series of cabins with associated road and drainage environments and the study included Aboriginal community consultation and survey, as well as desktop research. Background research led to a predictive model that suggested sites were most likely to occur close to permanent water sources, on raised areas such as ridgelines or crests. Sites in this region typically occur at elevations above the frigid, circulating air in the valleys. After survey, because of the extent of disturbance in the area, no areas of moderate or high sensitivity were identified. While the archaeologists did not require further archaeological investigation, prior to development, Merriman's LALC indicated that they should be invited to monitor excavation works prior to development.



Julie Dibden (2013) Proposed Subdivision, Lot 112, DP 832307 Bidgee Road, Cooma NSW. Aboriginal Cultural Heritage Due Diligence Assessment. AHIMS #102959

This archaeological assessment of a proposed subdivision of Lot 112 DP 832307, Bidgee Road, via Cooma, NSW, was required by Cooma Monaro Shire Council to support the Development Application. This area is approximately 10 km northwest of the current study area, close to the northwest trending ridgeline north of Cooma (Error! Reference source not found..., page Error! Bookmark not defined.). Dibden (2013) states that the area was of low archaeological potential, sue to the distance from fresh water and the exposed rocky landscape/difficult terrain. Two low-density artefact scatters were found during visual survey, and a mitigation strategy was agreed with the client. No AHIP, therefore, was required to carry out the proposed works.

5.3 Local model of Aboriginal occupation and site location

In the Cooma-Monaro district a general correlation between the permanence of water and the permanence and/or complexity of Aboriginal occupation has been observed by previous researchers (e.g. Dibden, 2013). This means that locations associated with ephemeral or unreliable water sources are typically associated with open camp sites that exhibit low absolute artefact numbers and low densities, indicating a relatively low intensity of occupation over time. In addition, the range and complexity of activities carried out at sites is likely to correlate with proximity to a permanent water source. While open sites close to permanent water possess evidence of a greater range of lithic activities (i.e. procurement, flaking, retouch, bipolar reduction), sites near ephemeral water sources are more likely to be associated with a limited range of technological activities.

Because a limited number of intensive subsurface excavations have been carried out in the Cooma-Monaro area, the model above is based on work undertaken elsewhere. Dibden (2013) states that, "it can be reasonably expected that if comparable detailed work was carried out in the Monaro a similar model of site variability would be produced." But in the absence of a tailored, tested local model, a basic classification based on stream ordering is may be used to predict both the spatial relationship of Aboriginal camp sites to landforms and landscapes and to assess the likely complexity and intensity of occupation activities that were conducted at these sites.

Dibden (2013) used this predictive model based on stream ordering to make the following general statements about Aboriginal open site locations and their nature in the Cooma Monaro area:

- The density of artefacts in a locale will vary according to the permanence of water, landscape unit (including vegetation structure) and proximity to lithic resources.
- At the headwaters of upper tributaries (first order creeks) archaeological evidence will be sparse.
- At the middle reaches of minor tributaries (second order creeks) archaeological evidence will be sparse but indicate focussed activity.
- At the lower reaches of tributary creeks (third order creeks) archaeological evidence will indicate more frequent occupation and evidence of more concentrated activities.



- At major creeklines and rivers (fourth order) archaeological evidence will indicate more permanent occupation which is of greater complexity.
- Creek junctions may provide foci for site activity, and
- Ridgetops between drainage lines will usually contain limited evidence.

5.3.1 Summary

Patterns of site location in the Cooma Monaro area indicate that the most common site types and features are artefact scatters and isolated artefact. Other site types that may be present include: hearths, ceremonial grounds, stone arrangements, natural/mythological sites and modified trees. Table 4 summarises the predicted potential for various site features within the current activity area together with notes on the predicted landform sensitivity.

Site Features	Predicted Potential	Sensitivity Within Activity Area
Stone artefacts	Moderate to high	Any landform. Increased sensitivity on low gradient landforms overlooking watercourses, particularly where prior disturbance is limited.
Hearth	Low-moderate	Any landform. Increased sensitivity on low gradient landforms, particularly where prior disturbance is limited.
Potential archaeological deposit (PAD)	Low-moderate	Erosive processes limit the chance of finding PAD Increased sensitivity on low gradient landforms where prior disturbance is minor.
Ceremonial/Dreaming	Low	May occur on any any landform.
Burial	Low	Any landform. Increased sensitivity in deeper, sandy soil profiles
Stone arrangements	Low	Any landform. Increased sensitivity on low gradient landforms, particularly where prior disturbance is limited.
Culturally modified tree	Low	Anywhere where mature trees remain.

Table 4: Summary of predicted sites features and contextual sensitivity within the activity area.

5.4 Implications for the activity area

In terms of Aboriginal heritage, the study area is unlikely to have been a focus of intensive occupation and the cumulative impact of vegetation clearance and decades of grazing have further diminished the archaeological potential of the area. However, it is still possible that



the area was the focus of some occupation activity in the past and the nature of impacts are unlikely to have completely destroyed heritage values.

Given the nature of the local topography and geology, it is predicted that:

- there is a moderate potential for stone artefacts and stone artefact scatters to occur on the low hill that stretches across the southern extent of the site;
- there is low potential for stone artefacts and stone artefact scatters to occur on the undulating terrain that is in the northwestern extent of the site.
- , there is a low-moderate potential for other site types to occur in the study area, and
- there is a low potential for stratified or intact subsurface archaeological deposits.

On the basis of the above desktop assessment, there is evidence to suggest that Aboriginal objects (e.g. artefact scatters and isolated artefacts) and/or other cultural heritage items may be present within areas of proposed ground disturbance. As such, a visual inspection is required.



6 STEP 4B - VISUAL ASSESSMENT 1, 07-04-22

6.1 Methodology

Visual inspection of Precincts 2 and 3 was conducted on 07/04/2022 by Clive Freeman and Peter Markovicz, Lantern Heritage Pty Ltd, in partnership with representatives from Merriman's LALC, including Warren Foster.

The visual inspection involved a pedestrian survey along the entire area of the proposed subdivision. The purpose of the survey was to identify and record Aboriginal objects and/or areas of potential archaeological deposits that relate to Aboriginal occupation. The participants in the survey were all involved in inspecting ground exposures for the presence of Aboriginal objects, which was undertaken by walking along/across proposed impact areas with individual participants inspecting all ground exposures that they encountered. All survey participants were also involved in discussions regarding the nature of soil deposits, prior impacts and predicted archaeological potential at each landform.

Observations were made regarding the soils, geology, vegetation, prior disturbance, ground surface exposures and visibility.

Field recording was primarily undertaken through digital recording methods on a mobile device (phone/tablet), with supplementary handwritten notes on hard copy maps of the study area. Copies of site cards (digital and/or hardcopies) for previously recorded sites were carried and referred to during the field survey. All field records were entered and managed by Clive Freeman from Lantern Heritage.

All photographs were captured on a mobile device with georeferencing of locations enabled, or on a digital camera with GPS capabilities.

The presence, nature and composition of vegetation was recorded including notes and observations regarding vegetation density, height, age and species. The average percentage of ground exposure incidence, and visibility within exposures, was recorded to the nearest 10%.

6.2 Field Survey Results

The archaeological survey undertaken in April 2022 covered the entire activity area, however only the exposures in the activity area were inspected and visibility was low outside of the exposures. Other than the exposed top of the low ridge, where thin rocky soils of very low archaeological potential were observed, ground visibility was very low [<10%]. This made visual assessment of the study area extremely difficult and, although no archaeological sites were detected, we could rule out the presence of Aboriginal cultural heritage in this area, due to the nature of the landforms and spatially varied nature of modern disturbance.

A more detailed breakdown of the visual assessment, including relevant photos, is provided below for Precincts 2 and 3 individually. Warren Foster from Merriman's LALC suggested that, by conducting a cultural burn of the vegetation in this area, they can improve visibility, allowing for a more effective survey in advance of development.



6.2.1 Precinct Two (Lot 2 and 4 in DP 1285072)

Precinct 2 is the northeastern section of the study area (Figure 1, Figure 4), roughly lozengeshaped and measuring approximately 650 x 350 m on its longest axes. Under these proposed works, it will be subject to excavation and building work as part of a housing development. While currently undeveloped, it has been cleared and subject to grazing during the historic period. Visibility during survey was <10% (effectively zero), due to the thick vegetation across the entire study site which included daisy yams (Plate 1, Plate 2, Plate 3). The only area where exposed ground was detected was the top of the ridgeline, where rocky soils with 10-15 cm large sub-angular stones were observed (Plate 4). The top of the ridgeline in this area also provides a view of other, higher ridgelines several km to the west, where archaeological sites have been recorded. Because of the vegetation cover, it was difficult to give a reliable assessment of archaeological potential in this area.





Plate 1: View from the top of the ridgeline, Plate 2: look south towards the top of the facing north (Precinct 2) ridgeline (Precinct 2)





Plate 3: Daisy yams (Precinct 2)



Plate 4: Exposed rocks at top of ridgeline (Precinct 2)

6.2.2 Precinct 3 (Lot 3 in DP 1285072)

Precinct 3 is the southwestern section of the study area (Figure 4), roughly lozenge-shaped and measuring approximately 780 x 200 m on its longest axes. Under proposed works, it will be subject to excavation and building work as part of a housing development. While currently undeveloped, it has been cleared and subject to grazing during the historic period. Visibility during survey was effectively zero (Plate 5, Plate 6), due to the thick vegetation across the entire study site which included daisy yams. While a view from the ridgeline extends out over Cooma township and the wider valley (Plate 7), the reliable water source of Cooma Creek is \sim 1.5 km distant and the small creek in the area did not hold any water at the time of survey (Plate 8).

While low visibility hampered the effectiveness of this survey, some statements can be made. Aboriginal archaeology in this area is likely to be of low intensity and limited complexity, in terms of activities and technologies represented. If any artefacts are present, they are likely to be concentrated on the low hill, rather than the floodplain. Merriman's LALC representative Warren Foster had suggested carrying out a cultural burn, in advance of development, to expose more ground surface and increase the chance of finding any archaeological sites in this area.





Plate 5: vegetation in Precinct 3



Plate 6: Vegetation in Precinct 3



Plate 7: View of Cooma township from Plate 8: Overgrown creek line (Precinct 3) ridgeline (looking west, Precinct 3)



6.3 Summary

Survey visibility was <10 %, due to thick vegetation. This made visual assessment of the study area extremely difficult and, although no archaeological sites were detected, we could not rule out the presence of Aboriginal cultural heritage in this area and some further investigation was required. Representatives from Merriman's LALC have suggested that, by



conducting a cultural burn of the vegetation in this area, they could improve visibility, allowing for a more effective survey in advance of development.

Given that the visual assessment has identified areas where Aboriginal objects are likely to occur, it is prudent to review the question posed at Step 3 of the due diligence process: Can harm to Aboriginal objects and/or can the carrying out of the activity at the relevant landscape features be avoided? This question is addressed below in Section 7.



7 STEP 4B - VISUAL ASSESSMENT 2, 25-08-22

7.1 Methodology

Because of the concern over lack of visibility, a second visual inspection of Precincts 2 and 3 was conducted on 25/08/2022 by Conor McAdams and Christine Gant-Thompson, Lantern Heritage Pty Ltd, in partnership with representatives from Merriman's LALC, including Glenn Campbell.

This second visual inspection involved a pedestrian survey targeting key areas of the low hill, identified as an area of interest within the proposed subdivisions (Figure 4, Figure 7). Prior to the survey, vegetation had been removed from a number of 5 m x 5 m areas, to provide some visibility of the nature of soil cover and allow a better assessment of archaeological potential. As in the previous inspection, the purpose of the survey was to identify and record Aboriginal objects and/or areas of potential archaeological deposits that relate to Aboriginal occupation. The participants in the survey were all involved in inspecting ground exposures for the presence of Aboriginal objects, which was undertaken by walking along/across the cleared areas and other exposures that they encountered. All survey participants were also involved in discussions regarding the nature of soil deposits, prior impacts and predicted archaeological potential at each landform.

Observations were made regarding the soils, geology, vegetation, prior disturbance, ground surface exposures and visibility.

Field recording was primarily undertaken through digital recording methods on a mobile device (phone/tablet), with supplementary handwritten notes on hard copy maps of the study area. All field records were entered and managed by Conor McAdams from Lantern Heritage.

All photographs were captured on a mobile device with georeferencing of locations enabled, or on a digital camera with GPS capabilities.

The presence, nature and composition of vegetation, including notes and observations regarding vegetation density, height, age and species, has been discussed in section 6. The average percentage of ground exposure incidence, and visibility within exposures, was recorded to the nearest 10%.

In order to record and present the results in a more easily digestible way, the study area was broken down into a series of landform-based survey units (Figure 7, Table). These were inspected individually and the results of survey are presented below in a survey unit by survey unit basis.





Figure 7: Survey Units from second assessment at Polo Flat Road, Cooma, and there relationship to the area of concern identified in previous assessment.



Table 5: Landscape settings of Survey Units from second assessment at Polo Flat Road, Cooma.

Survey Unit	Landscape setting
1	Precinct 2 lower slope
2	Precinct 2 mid-slope
3	Precinct 2 upper slope/crest
4	Precinct 3 lower slope and colluvial deposit
5	Precinct 3 area adjacent to drainage line
6	Exposure outside study area
7	Precinct 3 mid-slope
8	Precinct 3 upper slope/crest

7.2 Field Survey Results

The Archaeological due diligence survey work that was carried out on 25th of August 2022 was designed to systematically cover the area of interest identified in Section 6.3 and Figure 7, as well as an assessment of any other areas that were identified by Glenn Campbell as areas of interest. The survey covered a range of landform settings, including upper slope, mid-slope and lower slope settings in both Precinct 2 and Precinct 3, as well as a deposit of colluvial material at the base of the slope in Precinct 3 (survey unit 4) and an area of undulating ground beside the ephemeral watercourse in Precinct 3 (Survey unit 5). No archaeological deposits or artefacts were found and the soils on the slopes were found to be thin, rocky and eroded. While archaeological potential across the site was determined to be low-moderate, the thick colluvial deposit at the base of the slope in Precinct 3 retains the most archaeological potential of the areas surveyed. This is because of the possibility of material eroding from upslope and coming to rest in that landscape position.

7.2.1 Precinct 2 (Lot 2 and 4 in DP 1285072)

Precinct 2 is the northeastern section of the study area (Figure 1, Figure 4), roughly lozengeshaped and measuring approximately 650 x 350 m on its longest axes. Under these proposed works, it will be subject to excavation and building work as part of a housing development. While currently undeveloped, it has been cleared and subject to grazing during the historic period. Because of the low visibility that hampered the previous survey, areas of vegetation measuring 5 m x 5 m were trimmed using a line trimmer. These provided a reasonable view of soils in three survey units, corresponding to lower slope, mid slope and



upper slope/crest environments. Details of observations at individual survey units are provided below.

7.2.1.1 Survey Unit 1: Precinct 2 Lower Slope

This was the first slashed area we investigated. Despite low visibility (< 10%) caused by a lack of exposures and thick grass covering almost all soil (Plate 9, Plate 10), subangular rocks (10-15 cm sized) could be seen protruding and this appears typical of the thin, rocky soils in the area (Plate 11). Earthworks were visible around 20m north, towards the main road, indicating significant disturbance in the area. No artefactswere observed and in general this area is considered of low archaeological potential (Plate 12).

7.2.1.2 Survey Unit 2: Precinct 2 Mid-slope

This area of slashed ground is very similar to that observed in Survey Unit 1, but on a steeper gradient slope and apparently even more eroded (Plate 13, Plate 14). No artefacts were observed and this area retains very low archaeological potential.

7.2.1.3 Survey Unit 3: Precinct 2 Upper Slope/Crest

Similar to the other two Survey Units in Precinct 2, this slashed area revealed rocky and eroded soils with very low archaeological potential (Plate 15, Plate 16). No artefacts were discovered during this survey.

7.2.2 Precinct 3 (Lot 3 in DP 1285072)

Precinct 3 is the southwestern section of the study area (Figure 4), roughly lozenge-shaped and measuring approximately 780 x 200 m on its longest axes. Under proposed works, it will be subject to excavation and building work as part of a housing development. While currently undeveloped, it has been cleared and subject to grazing during the historic period. Because of the low visibility that hampered the previous survey, areas of vegetation measuring 5 m x 5 m were trimmed using a line trimmer. These provided a reasonable view of soils in three survey units, corresponding to lower slope with thick colluvial deposit, mid slope, upper slope/crest and the area beside an ephemeral watercourse. An area of exposure provided by vehicle tracks beside power lines was also investigated. While outside the area of proposed impacts, this may provide some useful insights into the pedological environment at this site. Details of observations at individual survey units are provided below.

7.2.2.1 Survey Unit 4: Precinct 3 Basal Slope with Thick Colluvial Deposit

Survey Unit 4 covers a substantial deposit of colluvial material at the base of the slope in Precinct 3. Good exposures of the deposit are provided by erosion along its northern face (Plate 17, Plate 18), caused by cattle trample. The large rocks visible in the base of the deposit indicate that this deposit is the result of a landslip, rather than a gradual accumulation (Plate 19). No stratigraphic features indicative of archaeological potential were observed, and no artefacts were detected in this survey unit. This deposit may be considered to have low-moderate archaeological potential, but Merriman's LALC representative Glenn Campbell pointed out that he has found stone tools in similar settings and has suggested that a representative from Merriman's monitors the portions of works that involve ground disturbance in this area.







Plate 9: Area of trimmed vegetation at base of Plate 10: Looking north towards main road slope, looking northwest (Survey Unit 1, Precinct 2) from base of slope (Survey Unit 1, Precinct 2)



Precinct 2)



Plate 11: Low visibility of rocky soil (Survey Unit 1, Plate 12: Looking south across cleared area (Survey Unit 1, Precinct 2)







Plate 13: Area of trimmed vegetation and rocky soil (Survey Unit 2, Precinct 2)

Plate 14: Close up of trimmed area with low visibility (Survey Unit 2, Precinct 2)



area at the top of the ridge (Survey Unit Unit 3, Precinct 2) 3, Precinct 2)



Plate 15: Looking south across cleared Plate 16: Exposed rocks at top of ridgeline (Survey





Plate 17: Looking west along eroded colluvial deposit (Survey Unit 4, Precinct 3).



Plate 18: Looking south at eroded colluvial deposit (Survey Unit 4, Precinct 3).



Plate 19: Large rocks within colluvial deposit (Survey Unit 4, Precinct 3)

7.2.2.2 Survey Unit 5: Precinct 3 Low-Lying Area Near Ephemeral Watercourse

The low-lying area overlooking the ephemeral watercourse in the northwestern extent of the study area is associated with various pieces of modern infrastructure, and has been subject to massive disturbance from sewer construction (Plate 20, Plate 21). Despite this, some areas of undulating ground remain undisturbed. No artefacts were found and the geomorphological evidence for a watercourse evidence very limited (Plate 22). Grass cover meant that visibility in this area was <10%, but the undisturbed parts of this area may be considered to have low-moderate archaeological potential.







Plate 20: Cleared area showing drain Plate 21: Cleared area, looking upslope to channel, looking west (Survey Unit 5, the southeast (Survey Unit 5, Precinct 3). Precinct 3).



ephemeral drainage line (Survey Unit 5, area (Survey Unit 6, west of Precinct 3) Precinct 3)



Plate 22: Looking southeast towards Plate 23: Area of exposure outside study



7.2.2.3 Survey Unit 6: Precinct 3 Exposed Ground to South of Activity Area

This road exposure, associated with power lines, is outside the study area (Plate 23). It was inspected because it was hoped that the exposure may help with the assessment in light of the lack of stratigraphic exposures elsewhere across the site. Visible in the vehicle tracks was the upper surface of a compacted red soil. No artefacts were detected during visual assessment of the exposure.

7.2.2.4 Survey Unit 7: Precinct 3 Mid-Slope

Similar to the mid-slope slashed area in Precinct 2, this area was characterised by <10% visibility with a thin, rocky soil formed on a relatively steep gradient. No artefacts were found during this survey and the area may be considered very low archaeological potential.

7.2.2.5 Survey Unit 8: Precinct 3 Upper Slope/Crest

Similar to the hilltop area in Precinct 2, this slashed area revealed rocky and eroded soils with very low archaeological potential (Plate 24). No artefacts were discovered during this survey.



Plate 24: Upper slope/crest of hill (Survey Unit 8, Precinct 3)



7.3 Summary

Across much of the study area, visibility remained < 10%, due to the fine grass which obscured the ground surface even after slashing. While this impacted survey coverage to an extent, across much of the site soils were found to be the thin, rocky soils that are typical of slopes in this region. No artefacts were found during the survey, and combined with the exposures that were provided by erosive features, slashing and vehicle tracks, the study area can be understood as having low-moderate archaeological potential, with some areas of thin, rocky soil on the slopes having very low archaeological potential, due to the extent of their erosion.

The deposit of colluvial material in Precinct 3 (Survey Unit 4) is the highest potential area that was detected within the study area. Glenn Campbell from Merriman's LALC has indicated that, although desktop and visual assessment indicate a relatively low chance of disturbing archaeological material in this area, he has found Aboriginal cultural material in similar settings within the Cooma area. Merriman's LALC have suggested having a representative monitoring the portions of the work that disturb ground in this area as a way of mitigating any potential damage to Aboriginal cultural heritage values.

At this point, it is prudent to review the question posed at Step 3 of the due diligence process: Can harm to Aboriginal objects and/or can the carrying out of the activity at the relevant landscape features be avoided? This question is addressed below in Section 7.



8 STEP 5 - FURTHER INVESTIGATIONS AND IMPACT ASSESSMENT

8.1 Impact assessment

The visual assessment has indicated that the archaeological potential of the study area is low-moderate, with some areas of very low archaeological potential found on the eroded soils of the hill slopes. The colluvial deposit at the base of the slope is considered to have lowmoderate archaeological potential, but representatives of Merriman's LALC have identified this as an area they are worried about, because they have found stone artefacts in similar settings around Cooma. They believe that having a representative from Merriman's LALC monitoring the ground disturbing works in this area will provide an effective way of mitigating any harm to Aboriginal cultural heritage values.

Step 3 of the due diligence process asks: Can harm to Aboriginal objects and/or can the carrying out of the activity at the relevant landscape features be avoided?

Based on the results of our survey, proposed works at Polo Flat Road, Cooma, are unlikely to harm Aboriginal artefacts. But the colluvial deposit at the base of the slope in Precinct 3 is retains the highest archaeological potential of any portion of the study area and representatives from Merriman's LALC believe there is some potential to harm Aboriginal artefacts in this area.

8.2 Options to avoid harm

Representatives from Merriman's LALC have proposed having a representative monitoring ground disturbing activities in the area of the colluvial deposit at the base of the slope in Precinct 3, as a way of mitigating any potential harm to Aboriginal cultural heritage values.

8.3 Summary

The visual assessment has indicated that the archaeological potential of the study area is low-moderate, with some areas of very low archaeological potential found on the eroded soils of the hill slopes. Based on the results of our survey, proposed works at Polo Flat Road, Cooma, are unlikely to harm Aboriginal artefacts. But the colluvial deposit at the base of the slope in Precinct 3 is retains the highest archaeological potential of any portion of the study area and representatives from Merriman's LALC believe there is some potential to harm Aboriginal artefacts in this area.

Representatives from Merriman's LALC have proposed having a representative monitoring ground disturbing activities in the area of the colluvial deposit at the base of the slope in Precinct 3, as a way of mitigating any potential harm to Aboriginal cultural heritage values.

Attention is also drawn to the fact that the due diligence process is covered by the caveat that the proponent can "[p]roceed with caution. If any Aboriginal objects are found, stop work and notify OEH. If human remains are found, stop work, secure the site and notify the NSW Police and OEH" (DECCW, 2010a: 10).



9 CONCLUSIONS AND RECOMMENDATIONS

On the basis of this due diligence assessment the archaeological potential of the study area is low-moderate, with some areas of very low archaeological potential found on the eroded soils of the hill slopes. Based on the results of our survey, proposed works at Polo Flat Road, Cooma, are unlikely to harm Aboriginal artefacts. But the colluvial deposit at the base of the slope in Precinct 3 is retains the highest archaeological potential of any portion of the study area and representatives from Merriman's LALC believe there is some potential to harm Aboriginal artefacts in this area.

Representatives from Merriman's LALC have proposed having a representative monitoring ground disturbing activities in the area of the colluvial deposit at the base of the slope in Precinct 3, as a way of mitigating any potential harm to Aboriginal cultural heritage values.

The following recommendations have been formulated on the basis of the desktop review and visual assessment documented above:

- a) Proposed works across the study area, in both Precinct 2 and Precinct 3, may proceed with caution.
- b) Monitoring should be carried out by a representative of Merriman's LALC, during works that disturb the ground surface in the area of the colluvial deposit at the base of the slope in Precinct 3, as a way of mitigating any potential harm to Aboriginal cultural heritage values.
- c) This due diligence assessment only covers the works outlined in section 2 of this report. If additional impacts or alternative alignments are proposed, further assessment will be required.
- d) A copy of this report, and any subsequent due diligence investigations, should be kept on record, and if requested, supplied to the relevant government agency as proof of compliance with the *Due Diligence Code of Practice*.



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APPENDIX 1 - AHIMS SEARCH



WSN	Extensive search - Site li	st report					
SitelD	SiteNatie	Datum	Zone Eastine	Northing	Context	Site Status **	SiteFeatures
62 2 0384	Hamett 12	ACD	55 695528	6001169	Opensite	Valid	Artefact: 19
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62-2-0381	Harnett 5	ACD	55 695600	6000972	Opensite	Valid	Artefact: ZZ
	Contact	Recorders	Mr.Charles Dea	arling			Permit
62-2-0336	Restriction applied. Please contact	8		3	Opensite	Valid	
	ahlms@environment.rsw.gov.au. Frontart Mandonano I AFC	Recorders	Mice Vanesea N	Unorm			Permit
62-2-0038	Cl 3:	ACD	55 699010	6004210	Opensite	Valid	Artefact: -
	Contact	Recorders	Doctor Illian C	omher			Permit
62 2 0288	MOULD 2;	ACD	55 699520	6000080	Opensite	Valid	Artefact:
	Contact	Recorders	Mr.Matthew Bi	arber			Permit
62-2-0354	The River 3 and PAD (TR3)	GD/A	55 688885	5995350	Opensite	Valid	Artefact: 4
	Contact T Russell	Recorders	Navin Officer H	Her tage Consult	ants Pty Ltd		Permit
62-2-0352	The River (TR1)	GLA	55 600930	5994759	Opensite	Valid	Artefact: 1
	Contact TRussell	Recorders	Navin Officer F	Her Lage Consul	ants Pty Ltd		Permit
62-2-0402	Bidgee Road 1	GDA	55 689545	5995667	Opensite	Valid	Artefact: 2
	Contact	Recorders	Doctor.Julie Di	lbden			Permit
62-2-0398	Meruo	GLA	55 689796	5988180	Opensile	Valid	Aboriginal Resource and Cathering : 1
	Contact	Recorders	MsAlice Willia	ams			Permit
62-2-0365	KA 2 (Kah Avenue 2)	GDA	55 689866	5986976	Opensite	Valid	Artefact: 1
	Contact Searce	Recorders	Ms Trish Sauni	ders			Permit
62-2-0231	Cooma Sewerage 2;	ACD	55 609910	5991420	Opensite	Valid	Artefact: -
	Contact	Recorders	an Klaves Ker	IY NAVEL			Permit
62-2-0214	Cooma Sewerage 1;	ACD	55 690400	5991870	Upensite	Valid	Artefact: -
	Contact	Recorders	Jan Klaver,Ken	ry Navin			Permit
62-2-0400	Doghead Ridge	GLA	55 690887	5986220	Opensite	Valid	Aboriginal Ceremon and Dreaming 1
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62-2-0397	Mullian Range North Ridge Fire Ste	GIA	55 691604	5988878	Opensite	Valid	Hearth : 1
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62-2-0374	Church (lill SU1	GEA	55 691664	5988878	Opensite	Valid	Artefact: 11
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62-2-0386	Church Hill SU1 North Cooma	wυ	55 691664	8788865	Opensite	Valid	Artelact: 11
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62-2-0238	EGP 2-28;	ACD	55 694200	5988860	Opensite	Valid	Artefact: -
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62-2-3372	Farmett 1	AGD	55 695	415	6000312	Open site	Valid	Artefact : 1:			
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62-2-)373	Harmett 2	AGD	55 695	481	6000438	Open site	Valid	Artefact : 2			
	Contact	Recorders	Mr.Charle	s Dearling	ca				Permits		
62-2-3030	Bunyon To Cowra Creek 7;	AGD	55 690	500	6003400	Open site	Valid	Stone Quar	Y = -,	Quarry	1190
	Contact	Recorders	Doctor.Tir	m Stene				Arrefact : -	Permits		
62-2-3012	RC6 Numeralla River	AGD	55 699	300	0068665	Open site	Valid	Artefact : -		Open Camp Site	1033
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62-2-)287	Mould 1;	AGD	55 6993	350	6000570	Opensite	Valid	Artefact :-		Open Camp Site	
	Contact	Recorders	Mr.Matths	ew Barbe	-				Permits		
62 2 3043	Ch 10;	AGD	55 699	600	6002300	Open site	Valid	Artcfact : -		Open Camp Site	
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62-2-3369	CBCA 4 (Comma Back Creek 4)	GDA	55 689	938	5986581	Open site	Valid	Artefact : 5			
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62 2 3213	Cooma Sewerage 1;	ACD	55 690	400	5991870	Open site	Valid	Artefact : -		Open Camp Site	
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62-2-3242	EGP 2-32;	AGD	55 693	250	6000600	Open site	Valid	Artefact :-		Open Camp Site	
	Contact	Recorders	Kerry Nav	vin					Permits		
62-2-1244	ECD 2-34;	AGD	55 694	300	6003900	Open site	Valid	Artefact : -, Quarry : -	Stone	Open Camp Site,Quarry	
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62-2-3240	EGP 2-30;	AGD	55 6941	500	5988850	Opensite	Valid	Artefact : -, Quarry : -	Stone	Open Camp Site,Quarry	
	Contact	Recorders	Kerry Nav	vin					Permits		
62-2-0321	MERI	AGD	55 694	000	5991750	Open site	Valid	Artefact : 3		Open Camp Site	
	Contact	Becorders	F.W Shaw	CLLOSS					Permits		
62-2-3032	Bunyan 10 Cowra Creek 1;	AGD	55 695	300	5995200	Open site	Valid	Artefact : -		Open Camp Site	1198
	Contact	Recorders	Doctor.Tir	m Stone					Permits		
67-7-1374	Harnett 11	(IEIV	55 645	509	6000731	Open site	Valid	Artefact : 2			
	Contact	Recorders	Mr.Charle	s Dearlin	99				Permits		
62-2-3022	Buryan	AGD	55 697	100	5995700	Open site	Valid	Artefact : -		Open Camp Site	
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62-2-0241	EGP 2-31;	ACD	55	695240	5993400	Opensite	Valid	Artefact		Open Camp Site	
	Contact	Recorders	Kerry	Navin,Will	red Shawcross				Permits		
67-2-0434	RFQ2	GDA	55	695897	5975317	Open site	Valid	Artefact	1		
	Contact	Recorders	Miss.	ulia Maske	=				Permits		
62-2-0036	Spring Downs Quarry, Spring Downs;	ACD	3	69755C	0000690	Opensite	Valid	Stone Qu	шу:-,	Quarry	
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62-2-0034	Ch L Sunny Side	ACD	55	00359	6003200	Open site	Vahd	Artefact:		Oper: Camp Site	
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62-2-0029	Bunyan To Cowra Creek 6;	ACD	55	000369	6003200	Opensite	Valid	Artefact.		Open Camp Site	1198
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62-2-0010	RC4 Numeralla River	ACD	5	000669	5990400	Opensite	Valid	Artefact		Open Camp Site	1033
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62-2-0367	CBCA 2 (Comma Back Creek 2)	GLA	55	382639	5986547	Opensite	Valid	Artefact	57		
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67-7-0371	Coorda Back Creek	ACD	55	560069	5986970	Opensite	Valid	Artefact	4		
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62-2-0401	Lambie Gorge	GEA	5	690247	5907246	Opensite	Valid	Aborigin	d Ceremony		
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67-2-0009	RC3 Numeralla River	ACD	55	697700	0006665	Open site	Valid	Artefact		Open Camp Site	1033
	Contact	Becorders	Robe	rt Paton					Permits		
62-2-0046	none;	ACD	g	699520	6000000	Opensite	Valid	Artefact.		Open Camp Site	
	Contact	Recorders	Mr.M	althew Barl	a				Permits		
62-2-0290	MOULD 4,	ACD	55	389669	5999430	Opensite	Valid	Artefact		Isolated Find	
	Contact	Recorders	Mr.M	atthew Barl	CT				Permits		
62-2-0011	RC5 Numeralla River	ACD	55	69970C	5998500	Opensite	Valid	Artefact		Open Camp Site	1033
	Contact	Recorders	Robe	rt Paton					Permits		
62-2-0338	Cooma Wind Farm 1	ACD	55	699700	5996760	Opensite	Valid	Artefact:	1		98759
	Contact	Recorders							Permits	1750	
62 2 0366	CBCA 1 (Comma Back Crock 1)	CLV	55	364689	5986673	Opensite	Valid	Artefact	C1		
	Contact Searle	Recorders	Ms.Tr	ish Saunde	a				Permits		
67-7-0478	Cooma Transmission Line Artefact Scatter 2 (CTL AS2)	GDA	55	689975	5992154	Open site	Destroyed	Artefact			
	Lontact	Recorders	UzAr	& Howirenn	ental and Herit	ana Managamp	nt - Pubbo Mr. Josh Sym	ions.Mr.Ber	Permits	21.12	



Report g with a D This infor	Valid - Th Destroyed Partially E Not a site		sitelD	No.
generated by AHIMS1 uffer of 0 metersNu mation is not guaranteed	tus e sile has been recorded a 1 - The site has been comp bestroyed. The site has be The site has been origin	Context	SiteName	3 < V .
Web Service on 13/04/2022 for Poter Markovic for the follow mber of Aboriginal sites and Aboriginal objects found is 104 to be free four error outsion. Hertage NSW and is employees disclaim	inc socialities onto the algoritin servaic search impacted or internet a suality as consequences of permit activity but some servoirity partially impacted or harmest causity as consequences of permit activi- ally enterest and occepted onto /k-INS as a valid bit but sherk-futher investig ally enterest and occepted onto /k-INS as a valid bit but sherk-futher investig	Recertion	Datum	AHIMS Web Services (AWS) Extensive search - Site list report
wing area at Datum : h lability for any act don	refimes also after naturel . Ny fut sometimee also af palene it was decided it is	 Elizabeth Appression 	Zone Easting	
GDA, Zone : or omission r	events There is fer natural ever NOT an aborig		Northing	
55, Eastings : 6800 nade on the Informatic	a nothing left of the site life. There might be part phot site. Impact of Tris		Context	
000.0 • 705000.0, M	on the ground but prop s or sections of the orig type of site does not to		Site Status **	
f such acts or omission.	onents should proceed with o mai blo coll present on the gr quire permit but Hentage NS	Permits	SiteFeatures	
6010000.0	aulion 'sund W cheuld be nolf ed		SiteTypes Sepo	Your Ref/PO Number : Cooma/Me Client Scrvice II
Page 7 o/7			t,	minans163



