

Appendix G



Historic heritage impact assessment

Moolarben Coal Project Stage 1 Optimisation Modification, Environmental Assessment – May 2013



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Historic Heritage Impact Assessment

Moolarben Coal Project - Stage 1 Optimisation Modification

Prepared for Moolarben Coal Operations Pty Limited | 8 May 2013

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Historic Heritage Impact Assessment

Final

Report J12090RP1 | Prepared for Moolarben Coal Operations Pty Limited | 8 May 2013

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Date 8.5.2013

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Document Control

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1 Introduction

1.1 Background

The Moolarben Coal Project (MCP) is an approved open cut and underground coal mine in the Western Coalfields of NSW, approximately 40 km north-east of Mudgee (Figure 1.1). EMGA Mitchell McLennan Pty Limited were engaged by Moolarben Coal Operations Pty Limited (MCO) to undertake an historic heritage impact assessment for the Moolarben Coal Project – Stage 1 Optimisation Modification (proposed modification).

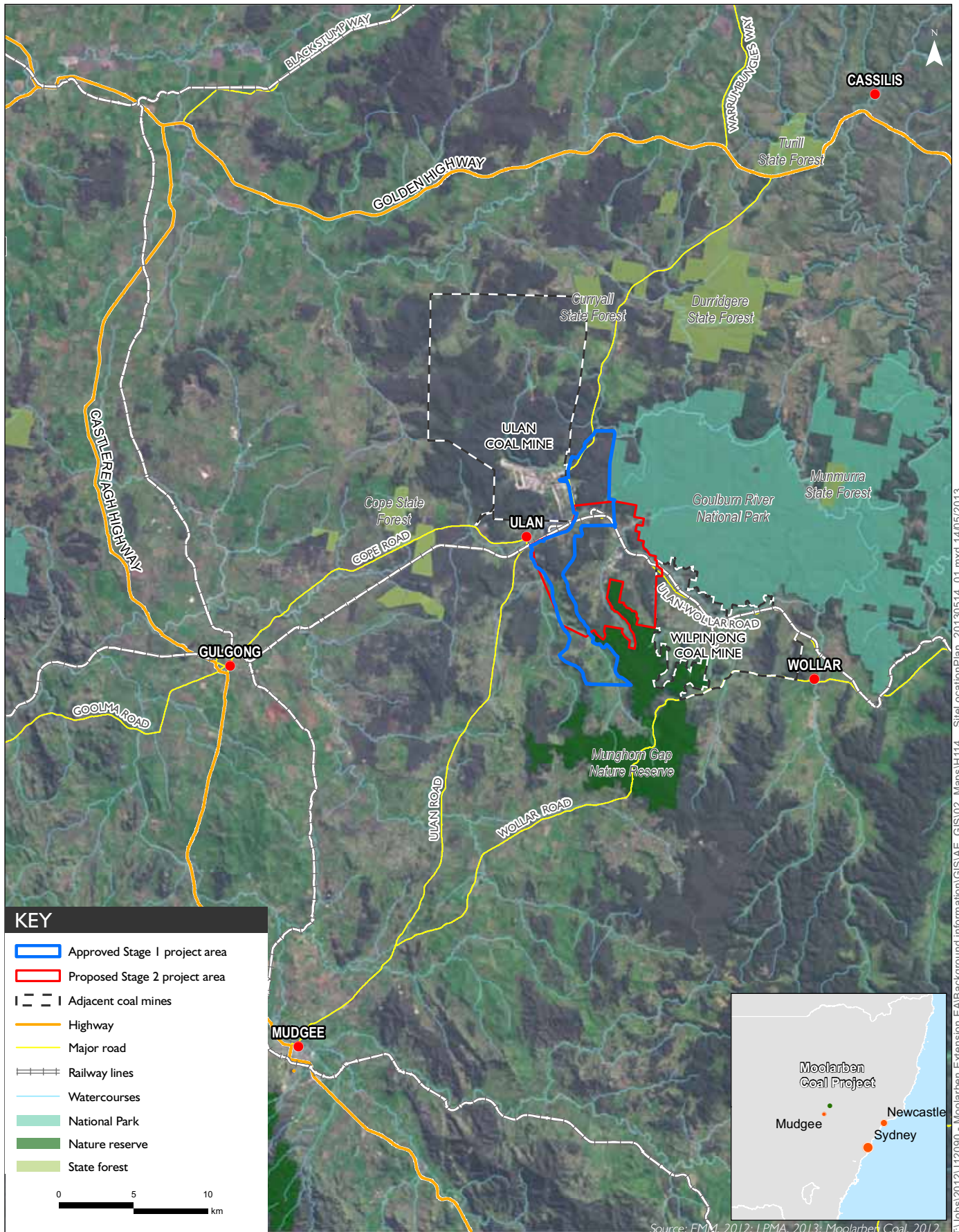
The MCP Stage 1 Major Project approval 05_0117 (MP 05_0117) was approved under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in 2007. Since gaining approval, MP 05_0117 has been modified on seven occasions to make administrative changes, changes to infrastructure and allow the construction of a borefield. The main components of the MCP Stage 1, as modified, comprise:

- three open cut pits, referred to as Open Cuts 1, 2 and 3, which have an approved combined maximum extraction rate of 8 million tonnes per annum (Mtpa) of run of mine (ROM) coal;
- one underground mine, referred to as Underground 4, which has an approved maximum extraction rate of 4 Mtpa of ROM coal;
- coal handling, processing, rail loop, load-out and water management infrastructure; and
- associated facilities including offices, bathhouses, workshops and fuel storages.

To date, mining has occurred within Open Cut 1 only, commencing at the south-western perimeter and progressing in a north-easterly direction.

The current disturbance limit granted under MP 05_0117 is restricting the extraction of large quantities of the deposit which are economically viable in today's market. The proposed modification will extend the disturbance boundary enabling increased resource utilisation, a longer life for Open Cuts 1 and 2 and promote the continuity of Stage 1 operations. All of the elements of the proposed modification are listed in Section 1.2.

The MCP is bordered by the Goulburn River to the north-west; privately owned grazing land to the north; Goulburn River National Park, Wilpinjong Coal Mine and Munghorn Gap Nature Reserve to the east; privately-owned grazing land to the south; and privately-owned grazing land, Ulan settlement and Ulan Coal Mine to the west.



1.2 Overview of proposed modification

The elements of the proposed modification to MP05_0117 comprise:

- the extension of mining within Open Cuts 1 and 2;
- the construction and operation of additional water management infrastructure; and
- a minor change to the rehabilitation sequencing and final landform.

The project approval period will be extended to accommodate the proposed modification.

No other changes are proposed under the modification.

The proposed modification elements are all within the Stage 1 project approval boundary, which forms the 'project area' for the proposed modification. Within the project area, Open Cut 1 and 2 extension areas are referred to collectively as the 'proposed extension areas'. It is noted that the proposed extension areas include a disturbance buffer of up to 50 m that will enable the development of a services road and infrastructure if required, such as water pipelines. This ensures that all potential impacts associated with the proposed extension to mining have been assessed.

1.3 Relationship to other projects

A Major Project Application for Stage 2 of the MCP, MP 08_0135, is currently being assessed by the Department of Planning and Infrastructure (DP&I). If approved, Stage 2 will consist of one open cut pit, Open Cut 4, and two underground mines, Undergrounds 1 and 2, and associated additional infrastructure.

1.4 Study purpose

This study has been prepared to assess the potential historic heritage impacts from the proposed modification and to develop measures that would mitigate and manage potential impacts.

1.5 Legislative context

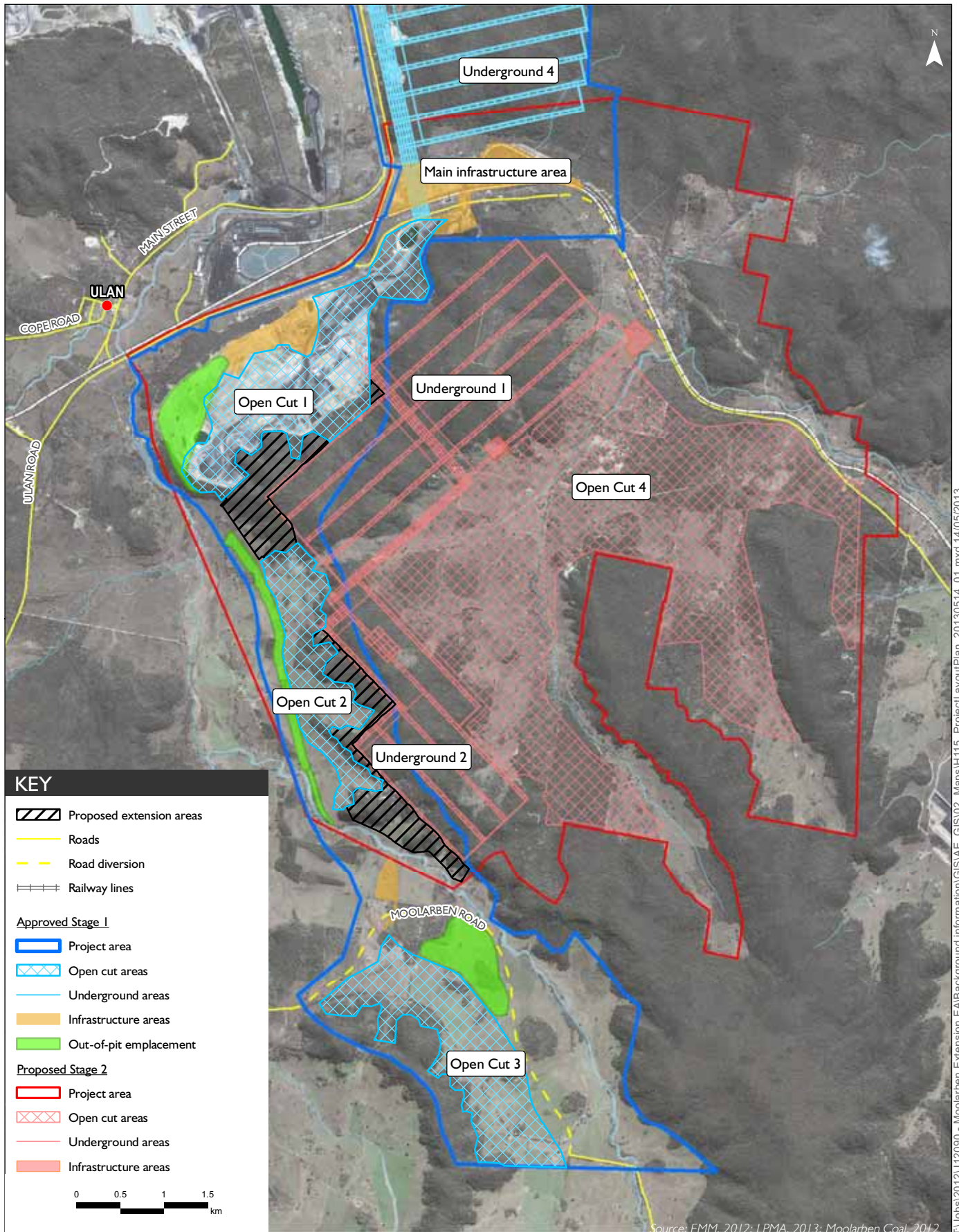
This assessment is conducted using the principles of *The Australian International Council on Monuments and Sites, Charter for Places of Cultural Significance* (also known as the *Burra Charter*, Australian ICOMOS 1999) and the New South Wales (NSW) *Heritage Manual* (Heritage Office 2006).

The *Burra Charter* (Australian ICOMOS 1999) defines the concept of cultural significance as 'aesthetic, historic, scientific, social or spiritual value for past, present or future generations' (*Burra Charter* 1999: Article 1.2). It identifies that conservation of an item of cultural significance should be guided by the item's level of significance.

The Heritage Branch, Office of Environment and Heritage (Heritage Branch, OEH, formerly known as the Heritage Branch, Department of Planning) provides guidelines for the assessment of heritage significance and the listing of heritage items in Council local environmental plans (LEPs) or on the State Heritage Register, known as the *Heritage Manual* (Heritage Office 1996 and updates). The components of the *Heritage Manual* are informed by the values and definitions in the *Burra Charter*. OEH provides other best practice guides which have informed this study, including:

- *Statements of Heritage Impact Guidelines* (Heritage Office 2006);

- *Investigating Heritage Significance* (Heritage Office 2004);
- *Assessing Significance for Historical Archaeological Sites and 'Relics'* (Heritage Branch Department of Planning 2009); and
- *How to prepare archival records of heritage items* (Heritage Office 1998).



1.6 Report structure

The structure of this study is as follows:

- Section 2 provides a brief history of the project area and surrounds.
- Section 3 describes the survey method and results.
- Section 4 details the impact assessment and management measures for heritage items.
- Section 5 provides a conclusion to the study.

1.7 Authorship

This report was prepared by Rebecca Moore BA Hons Archaeology – Archaeologist, EMM. The report was reviewed by Neville Baker BA Hons Prehistory – Associate Director – Archaeologist, EMM.

The terms used in this report are generally those defined in the *Burra Charter* (Australian ICOMOS 1999) and the NSW *Heritage Manual* (Heritage Office 2006) or as specified in the glossary.

1.8 Limitations

There is limited first hand historical information regarding the project area. Where possible, primary sources were used; however there has been considerable reliance on secondary sources to compile a history of the area.

2 Historical background

2.1 Historical themes

The Australian and NSW heritage systems employ a series of historic themes to guide the understanding of history and historical investigation in Australia. As part of the historic heritage assessment process, it is important to review the historic themes when undertaking research on an area or place to provide a framework for historic research. The state and national themes are complimentary to enable the historian to present a unified understanding of how an area fits into NSW and Australian history.

The historic themes are also an important guide when assessing an item's heritage significance. They provide information on the common standards for assessing if an item is historically significant at the local, state or national level. Finally, historic themes help develop interpretation and management strategies for items of heritage significance. A full list of these themes can be found on the Heritage Branch, OEH website (<http://www.environment.nsw.gov.au/heritage/index.htm>). Historic themes in the project area were identified based on the historical background (as described below) and the results of the historical survey (see Section 3). The Australian and NSW historic themes relevant to the project area that have been used in this study are listed below.

2.1.1 Australian historic themes

- (2) Peopling Australia: 2.4 Migrating; 2.4.2 Migrating to seek opportunity; 2.6 Fighting for land; 2.6.2 Displacing Indigenous people;
- (3) Developing local regional and national economies: 3.3 Surveying the continent; 3.3.2 Looking for overland stock routes; 3.3.3 Prospecting for precious metals; 3.3.4 Looking for land with agricultural potential; 3.5 Developing primary production; 3.5.1 Grazing stock; 3.5.2 Breeding animals; 3.5.3 Developing agricultural industries; 3.11 Altering the environment; 3.11.4 Clearing vegetation; 3.15 transport;
- (4) Building settlements towns and cities: 4.1 land tenure;
- (6) Education;
- (8) Developing Australia's cultural life: 8.1 Domestic life; 8.14 Living in the country and rural settlements; and
- (9) Marking the phases of life: 9.1 Birth and death.

2.1.2 NSW historic themes

- Aboriginal culture and interactions with other cultures;
- Convict life;
- pastoralism;
- land tenure;
- transport;

- domestic life; and
- birth and death.

2.2 Aboriginal heritage

Further information on the Aboriginal heritage of the area can be found in the Aboriginal Heritage Assessment report in Appendix E.

2.3 History of the project area

The project area is located in the central west region of NSW. The Stage 1 and Stage 2 Environmental Assessments (EAs) both contained detailed and adequate histories of the Moolarben and Ulan regions. The following brief history of the project area has been compiled using sources primarily from the NSW State Library and Lands Department databases. Additionally information has also been drawn from the previous historical reports detailed in Section 3.1.

2.3.1 Exploration

During the early 1800s the central west was explored periodically by George Evans (1813 to 1815), John Oxley (1817), James Blackman (1821), William Lawson (1821) and then officially by Thomas Mitchell in 1835 (Kass 2003; Mudgee Historical Society 1996). Private exploration and pastoral pursuits occurred alongside these official journeys (Kass 2003).

2.3.2 Settlement

Land settlement in the project area was late in comparison to the surrounding Mid-Western region, due to the difficulty of accessing the remote country. George and Henry Cox took up land to the west of the project area near Gulgong in 1822. They abandoned the land shortly afterwards due to the hostility of the local Aboriginal people (Maxwell 1998:12).

William Robinson purchased four 30 to 50 acre blocks in the Moolarben and Lagoon Creeks and the Goulburn River areas in 1855 (Department of Lands, Old System Land Records, Book 115 No.763). John McDonald took up land along Ulan Creek and the Goulburn River in 1850 and his name is on the earliest Conditional Purchase block in the area from 1861 (NSW Crown Lands Administrative Map, Parish Map Dubbo Office Set CD 3). Also in 1861 Thomas Hawkins took up land in the Moolarben Parish.

2.3.3 Towns and transport

The closest settlement to the project area is Ulan. Ulan was proclaimed as a village and a suburb in 1897. It is small and has remained so throughout its history. In 1908 it was reported that the post office at Ulan was serving 35 families and a total population of 196 persons (National Archives, Ulan Post Office, Sp32/1). By 1914 Ulan had a hotel, post office, hall, church, school and eight houses. At present the settlement consists of a school, hotel and a number of houses which are predominantly mine owned.

Roads through the project area were slow to develop, and usually followed tracks made by the movement of stock to the town centres. Little remains of them today. One such road runs through the north-west of the project area through Carrs Gap to Wilpinjong. It is located over 500 m to the south-east from the proposed Open Cut 1 extension area and 600 m north of the proposed Open Cut 2 extension area. It is possible this road is shown on Bakers Australian Atlas in 1843-6. One coach line traversed the Moolarben valley. Coach transport was considered an expensive means of travel and it was not widely used. A mail coach ran three times a week from Mudgee to Cassilis via Ulan in the early twentieth century.

The western districts were not connected to the rail system until the twentieth century with Dunedoo connected in 1910. While proposed the railway to the Ulan area did not eventuate until White Industries completed the line to connect Ulan Colliery to Newcastle in the 1980s.

2.3.4 Industry

The predominant industry in the project area was pastoral, dominated by cattle and sheep grazing. The 1855 survey of landowners in the area showed that all had horses and cattle with some keeping sheep and pigs as well (Legislative Council of NSW, Volume 39 Part 1, Appendix 2, 1885). Some crops were produced however on the whole the land of the project area was poor and large scale agriculture was not practiced. Other industries such as timber getting occurred sporadically depending on demand.

2.3.5 Education

There were a number of schools in the region with the school site and size varying depending on where the residents of the region were located. Schools operated at Old Ulan (1885), Murragamba (1885) and White Munghorn (1941). Moolarben had two school sites and evidence of one of these is located to the south of the project area. Ulan is the only school still in operation (NSW Department of Education 2012).

3 Historical survey

3.1 Previous study

Two previous historic heritage studies have been completed at the MCP. Collectively, these studies assessed all areas within EL 6288 and areas to its west, to include the village of Ulan, and to its south, to include the headwaters of Moolarben Creek. The extensive area surveyed includes the areas proposed for impact as part of this modification. The first study was completed by Veritas Archaeology and History Service in 2005 in support of the MCP Stage 1 EA.

The methods used in the Veritas (2005) assessment followed a series of steps including:

- searches of national, state and local heritage database for previously recorded heritage items;
- compilation of a database of early electoral rolls to determine families which may have been in the area, as sites were more likely to remain if they had personal attachment for the families still living on the property;
- compilation of a database from early parish maps of the area to ascertain early land grants and provide further information on the families which may have lived in the area for extended periods of time, linking to the electoral roll database;
- interviews with residents of the area which provided valuable information about the possible historic items in the area; and
- field survey to locate and evaluate items.

In the Veritas (2005) study 41 items of heritage significance were identified including houses, farms and graves. A brief record was made of each, including historical notes. Of these 41 items, seven were identified as potentially impacted by the project. Mitigation measures for these items were proposed including archival recording for all items and exhumation for two burials located in the Open Cut 3 footprint. As a result of this assessment recommendations were also made for archival recording of a number of heritage items in the lease but which were not directly affected by mining activities. Archival recording of these items was completed in 2009. Impacts on all of the items identified by Veritas (2005) will remain unchanged as a result of the proposed modification.

A second study was completed by Heritas Architecture in 2008 for the MCP Stage 2 EA. The study area for this assessment was the footprint and associated infrastructure of the Stage 2 development including additional open cut (Open Cut 4) and underground (Underground 1 and 2) mining areas, generally located to the east of the proposed extension areas .

The methods for this assessment included:

- a review of the Veritas (2005) report;
- an acceptance of the significance of each of the heritage items identified by Veritas (2005); and
- a site inspection of potentially impacted heritage items.

The Heritas Architecture's (2008) study reported an increase to impacts on eight items identified within the Veritas (2005) report. In addition, three further items were identified which would be impacted by the

proposed development. Recommendations for mitigation of impacts to historic heritage included; archival recording, historical research, archaeological assessment and conservation.

No items identified by Heritas Architecture (2008) will be impacted by the proposed modification.

Historic reports have also been completed as part of nearby developments including the Ulan Coal Mine located approximately 1 km to the northwest of the project area and the Wilpinjong Coal Mine located approximately 5 km to the east of the proposed extension areas. The historic heritage study for the Ulan Coal Mine was completed by Umwelt in 2009 and investigated historic heritage in the Ulan mining leases. The study area was considered typical of a rural landscape in the Central Tablelands of NSW. The study identified four heritage items of local significance comprised homesteads, farm structures, and the Old Ulan village. Archaeological potential was identified as low. Management measures for impacted heritage items included: archival recording, fencing and project design changes.

The historic heritage study for the Wilpinjong Coal Mine was completed by Heritage Management Consultants in 2004 and investigated historic heritage in the Wilpinjong Coal Mine project area. The study identified nine items of local heritage significance including houses, a woolshed and a school. Management measures for impacted heritage items included: photographic recording, re-use of materials and removal and reconstruction of heritage items.

3.2 Methodology and results

3.2.1 Register searches

The following heritage registers were searched for registered items of significance located in the proposed extension areas:

- UNESCO world heritage register;
- Australian National Heritage List;
- Commonwealth Heritage Register; and
- NSW State Heritage Register.

No items of World, National, Commonwealth or NSW State heritage were identified in the proposed extension areas. Two items of National significance were identified in the vicinity of the proposed extension areas. The Goulburn River National Park is located approximately 3 km to the northeast of the proposed extension areas. The Munghorn Gap Nature Reserve is located approximately 2 km to the south-east of the proposed extension areas. Neither of these items will be impacted by the proposed modification.

The Mid-Western Regional Council Local Environmental Plan (MWR LEP, 2012) was also reviewed for items of local significance which may be present in the proposed extension areas. No items listed on the MWR LEP were located in the proposed extension areas.

3.2.2 Field survey

A field survey was completed on 4 and 5 December 2012 by EMM archaeologists Rebecca Moore and Ryan Desic. No new items of historical significance were discovered during the survey. Previously identified items which may be impacted by the proposed modification were also visited.

4 Impact assessment and management

4.1 Impacts on heritage items

No heritage items will be impacted by the proposed modification. As no heritage items will be impacted no assessment of significance is required.

4.2 Management

No additional management or mitigation measures are required as no heritage items will be impacted by the proposed modification.

Mitigation and management of known heritage items in the vicinity of the proposed extension will continue under MCO's Heritage Management Plan. No additional measures are required. Protocols for the identification of unknown heritage sites are also contained in the Heritage Management Plan.

5 Conclusion

The entire project area has been the subject of previous historic heritage assessments. Additional database searches, review of relevant literature and additional surveys were undertaken to verify the relevant outcomes from the previous assessments and to support the current study.

No heritage items will be impacted by the proposed modification. The measures described in the Heritage Management Plan including protocols for identification of previously unidentified sites will be implemented to ensure the continued protection of historic heritage items.

Glossary of Terms

Archival Record: recording an item to specific criteria as set out in the guideline *How to Prepare Archival Records of Heritage Items* (Heritage Office 1998).

Conservation: all of the processes of looking after a place so as to retain its cultural significance.

Building: a part of a building, structure or part of a structure.

Burial: the body or coffin placed in a grave.

Grave: the hole in the ground dug for the body or coffin including the soil used to fill the hole.

Item: a place, building, work, relic, moveable object or precinct.

Listing: an item is placed on a statutory heritage list.

Local Significance: in relation to a place, building, work, relic, moveable object or precinct, means significance to an area in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item.

Place: site, area, land, landscape, building or other work group of buildings or other works and may include components, contents, spaces and views.

Relic: any deposit object or material evidence that (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and (b) is of State or local heritage significance.

State Significance: in relation to a place, building, work, relic, moveable object or precinct, means significance to the State in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item. An item can be both of State heritage significance and local heritage significance. An item that is of local heritage significance may or may not be of State heritage significance.

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