

MOOLARBEN COAL COMPLEX OC3 EXTENSION PROJECT

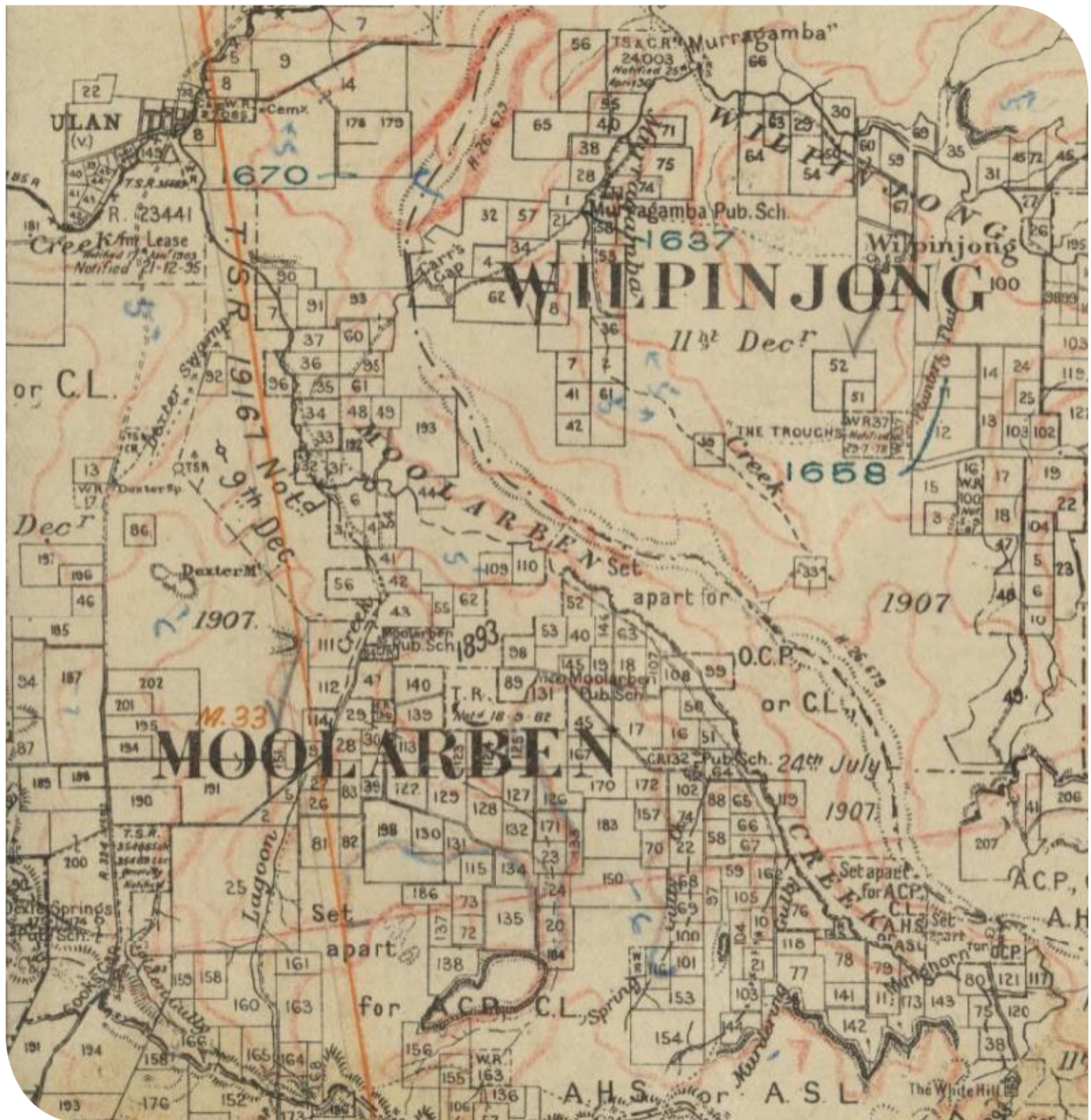
ENVIRONMENTAL IMPACT STATEMENT

APPENDIX G

NON-ABORIGINAL HERITAGE ASSESSMENT



Prepared for Moolarben Coal Operations Pty Ltd
Prepared by Niche Environment and Heritage | 27 October 2022



Document control

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Executive summary

Background

Niche Environment and Heritage Pty Ltd (Niche) was commissioned by Moolarben Coal Operations Pty Ltd (MCO; the Proponent) to undertake a Non-Aboriginal Heritage Assessment (NAHA) and Statement of Heritage Impact (SoHI) to inform the Moolarben Coal Complex (MCC) OC3 Extension (the Project) Environmental Impact Statement (EIS). MCC is located approximately 40 kilometres (km) north of Mudgee in the Western Coalfields of New South Wales (NSW). MCO has identified an opportunity to extend open cut mining operations immediately south of the approved OC3 open cut pit as well as develop four new open cut pits to the east and south-east of the approved OC3 mining area, within existing mining tenements (the Subject Area).

This NAHA and SoHI aims to assess the potential impacts of the Project on historical heritage items located within the Subject Area and potential indirect impacts on any other proximity items. The objective is to satisfy the Secretary's Environmental Assessment Requirements (SEARs) issued for the Project as part of the EIS being prepared under Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

This impact assessment has been prepared in accordance with best practice in historical heritage management as guided by the *NSW Heritage Manual* (Department of Urban Affairs and Planning, 1996) and *The Burra Charter: Australia ICOMOS Charter for Places of Cultural Significance* (The Burra Charter) (Australia ICOMOS, 2013), with reference to the provisions of the *NSW Heritage Act 1977* and the *Mid-Western Regional Local Environmental Plan 2012* (Mid-Western Regional LEP).

The method of assessment included a desktop analysis, a field component, significance and impact assessment and provision of management recommendations. Desktop analysis included a search of registers, inventories and databases for heritage in NSW, as well as review and analysis of previous historical heritage assessments undertaken for the MCC. Historical context for the local area was prepared to inform the significance assessment of any heritage items identified. Field assessment involved a physical inspection to validate any potential heritage items.

Heritage items within the Subject Area

There are no local, State, National, or Commonwealth listed heritage items within the Subject Area. Three non-listed sites of local significance are located within the Subject Area (Site No. 3, Site No. 4 and a potential burial site). All sites comprise remnant surface archaeology which indicate high potential for subsurface archaeology. Site No. 3 consists of two potential burials and Site No. 4 comprises remnant homestead structures and a potential burial site. The potential burial site comprises surface archaeology consistent with a single historic burial.

Site No. 3 and Site No. 4 were previously recorded during the heritage assessment for the Stage 1 Project Approval (Veritas, 2005). At that time, the sites were predicted to be impacted by the OC3 mining area and therefore the Stage 1 Project Approval included approval to exhume the burial sites. A letter of advice was later provided for the potential burial site (Niche 2017) outlining similar management recommendations if future mining were to encompass the site.

In 2019, under the 'Open Cut Modification' (Modification 14), MCO revised its OC3 mine plan and relinquished the disturbance area that would have directly impacted Site No.3 and Site No.4. Due to the revision of the disturbance area, MCO committed to fencing the sites to avoid disturbance when

construction/operation activities are occurring in close proximity. Exhumation of these sites was no longer expected to be required and would only be undertaken if impacts were unavoidable.

On this basis, the approved management measure under the Stage 1 Project Approval was changed to:

Archival recording and exhumation if impacts unavoidable. Discussion to be held with related families if exhumation to occur.

This management measure is replicated in the MCC's approved Heritage Management Plan (HMP) with additional commitments around fencing to mitigate impacts.

The Project is now proposing to disturb the area in proximity to Site No. 3 and Site No. 4.

Significance Assessment

Site No. 3 Roberts Family Burial Site

Site No. 3 is located within the northern part of the Subject Area, directly adjacent to the approved OC3 mining area and comprises known burial sites of high local heritage significance. The burial sites hold strong spiritual/social connection to the living descendants who reside locally in the area, hence is assessed as having high archaeological potential.

Site No. 4 M Robison Homestead (House and Burial Site)

Site No. 4 is of moderate local heritage significance and contains structures of a former family homestead belonging to the Robison family and a potential burial site. Due to the high likelihood of archaeological deposits, and the potential of an undisturbed burial site, Site No. 4 is assessed as having high archaeological potential.

Potential Burial Site

The potential burial site is of moderate-high local heritage significance and contains surface archaeology consistent with a single historic burial. Due to the high likelihood of a potential undisturbed burial site, the site is considered to have high archaeological potential.

Recommendations

Consistent with the Stage 1 Project Approval and the approved MCC HMP, prior to any surface disturbance in the vicinity of the burial sites, it is recommended that archival recording of the burial sites be undertaken. The Project is now proposing to disturb the area within and in proximity to Site No. 3, Site No.4 and the potential burial site, which therefore requires the relevant excavation and exhumation processes, which can be undertaken through two separate approval pathways.

Excavation and exhumation of the burial sites could be undertaken prior to the approval of the Project under a *Heritage Act 1977* section 140 excavation permit, whereby exhumation works would commence prior to approval of the Project.

Another approval pathway involves the commencement of excavation and exhumation works after approval of the Project in accordance with the approved MCC HMP. A HMP would be developed for the Project or the existing MCC HMP would be reviewed and, where necessary, updated to include the Project area and heritage items upon, approval of the Project.

An Archaeological Research Design Methodology Report would need to be drafted prior to excavation, including a proposed methodology for the remains to be transported, analysed (with approval from relatives) and relocated in consultation with family members. An Excavation Report would also be required to be sent to Heritage NSW and the Mid-Western Regional Council. Exhumation procedures are to be undertaken in accordance with the approved HMP for the Project (either existing or new) and other relevant legislation and guidelines at the current time of exhumation.

Management of previously identified historic heritage items located within the Subject Area would be undertaken in accordance with Section 6.0 of the approved MCC HMP, which would be updated to incorporate the Project or a new HMP would be developed for the Project.

No management or mitigation measures are required for the homestead remains at Site No. 4.

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1 Introduction

1.1 Background

Niche Environment and Heritage Pty Ltd (Niche) was commissioned by Moolarben Coal Operations Pty Ltd (MCO; the Proponent) to undertake a Non-Aboriginal Heritage Assessment (NAHA) and Statement of Heritage Impact (SoHI) to inform the Moolarben Coal Complex (MCC) OC3 Extension Project (the Project) Environmental Impact Statement (EIS). The MCC is located approximately 40 kilometres (km) north of Mudgee in the Western Coalfields of New South Wales (NSW) (Figure 1). MCO has identified an opportunity to extend open cut mining operations immediately south of the approved OC3 open cut pit as well as develop four new open cut pits to the east and south-east of the approved OC3 mining area, within existing mining tenements (the Subject Area).

The Project EIS is required to accompany a Development Application in accordance with Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). This NAHA and SoHI will form one component of the EIS.

This NAHA and SoHI presents information on the Project aims and objectives, a summary of legislative requirements, the assessment methodology, an environmental and historical context, and the results of an extensive and systematic field survey. A detailed description, and significance and impact assessment for each identified heritage item is provided with recommendations for their future management, including proposed mitigation strategies.

1.2 Proposed development

MCO is the operator of the MCC on behalf of the Moolarben Joint Venture (Moolarben Coal Mines Pty Ltd [MCM], Yancoal Moolarben Pty Ltd [YM] and a consortium of Korean power companies). MCO, MCM and YM are wholly owned subsidiaries of Yancoal.

Mining operations at the MCC are currently approved until 31 December 2038 with a combined coal production rate of 22 million tonnes per annum (Mtpa) in accordance with Project Approval (05_0117) (Stage 1) (as modified) and Project Approval (08_0135) (Stage 2) (as modified). The MCC comprises four approved open cut mining areas (OC1 to OC4), three approved underground mining areas (UG1, UG2 and UG4) and other mining related infrastructure (including coal processing and transport facilities).

MCO is proposing to extend open cut mining operations at OC3 immediately south and develop four new open cut pits south and southeast of the approved OC3 within a valley that has previously been cleared for low-intensity agriculture (Figure 2). The extended open cut mining operations would provide approximately 10 years of mining (from 2025 to 2034), maximise use of existing mining fleet, and maintain steady production of run-of-mine (ROM) coal at the MCC post-completion of mining within the approved OC3 mining area. The proposed extension area is identified in Figure 2.

It is expected the Project would include the following activities:

- extension of open cut mining operations within mining lease (ML) 1691, exploration licence (EL) 6288, and EL 7073 to allow mining of additional coal resources;
- extraction of up to 9 Mtpa of ROM coal with a total of approximately 40 million tonnes (Mt) over the life of the Project;
- mining operations between approximately 2025 to 2034 (which is within the approved life of the MCC ending on 31 December 2038);

- extension of employment of existing open cut workforce;
- construction and operation of ancillary infrastructure, services, plant and equipment in support of mining operations;
- construction and operation of water management and water storage infrastructure in support of mining operations;
- development of an integrated final landform with the approved OC3 mining area;
- ongoing exploration activities in the Project area;
- construction of haul road creek crossings;
- quarrying and/or excavation of borrow pits within approved disturbance areas to retrieve construction materials;
- conventional open cut mining related activities such as drilling and blasting, and other associated activities; and
- rehabilitation, decommissioning and closure.

1.3 Aims and objectives

The aims of this report were to identify any historical heritage items located within the Subject Area and assess the potential impact of the Project on their heritage values and the heritage values of the Subject Area in accordance with *Assessing Heritage Significance* (NSW Heritage Office, 2001). This NAHA and SoHI also aims to provide recommendations and mitigative measures to manage any places of heritage significance and impacts resulting from potential impacts of the Project.

The objective of this report is to satisfy the relevant requirements of the Project Secretary's Environmental Assessment Requirements (SEARs) (Section 2.2.1).

1.4 Methodology

This NAHA and SoHI has been prepared in accordance with the principles and methodology contained in *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance* (Australian International Council on Monuments and Sites [Australia ICOMOS] 2013) (The Burra Charter) and in accordance with the best practice standards set out by Heritage NSW, including:

- *Statement of Heritage Impact* (Heritage Council of NSW, 2002).
- *NSW Heritage Manual* (Department of Urban Affairs and Planning, 1996).
- *Assessing Heritage Significance* (NSW Heritage Office, 2001).
- *Assessing Significance for Historical Archaeological Sites and 'Relics'* (Department of Planning [DoP], 2009).

1.4.1 Literature review, database searches

A review of relevant literature and databases was undertaken to determine the potential for historical heritage items to occur within the Subject Area. The literature and databases that were reviewed included:

- Mid-Western Regional Local Environmental Plan 2012 (Mid-Western Regional LEP) heritage schedules.
- Mid-Western Regional Local Development Control Plan 2013 heritage schedules.
- State Heritage Inventory (SHI) and State Heritage Register (SHR).

- State Heritage and Conservation (section 170) registers.
- Commonwealth heritage registers (Australian National Heritage Database (NHL), Commonwealth Heritage List (CHL), and former Register of the National Estate).
- Background research, including previous historical heritage studies and reports.

The results of the desktop review were collated to identify known heritage items and places with potential for heritage significance. These items and places informed the field survey.

1.4.2 Prior assessments

Heritage assessments prepared for previous Moolarben Coal Complex Operations, include:

- *Moolarben Coal Project Non-Aboriginal Heritage Assessment* (Veritas Archaeology and History Service [Veritas], 2005).
- *European Heritage Assessment of Identified Items within Stage 2 of the Moolarben Coal Project* (Heritas Architecture, 2008).
- *Moolarben Coal Project – Stage 1 Optimisation Modification Historic Heritage Impact Assessment* (EMGA Mitchell McLennan, 2013).

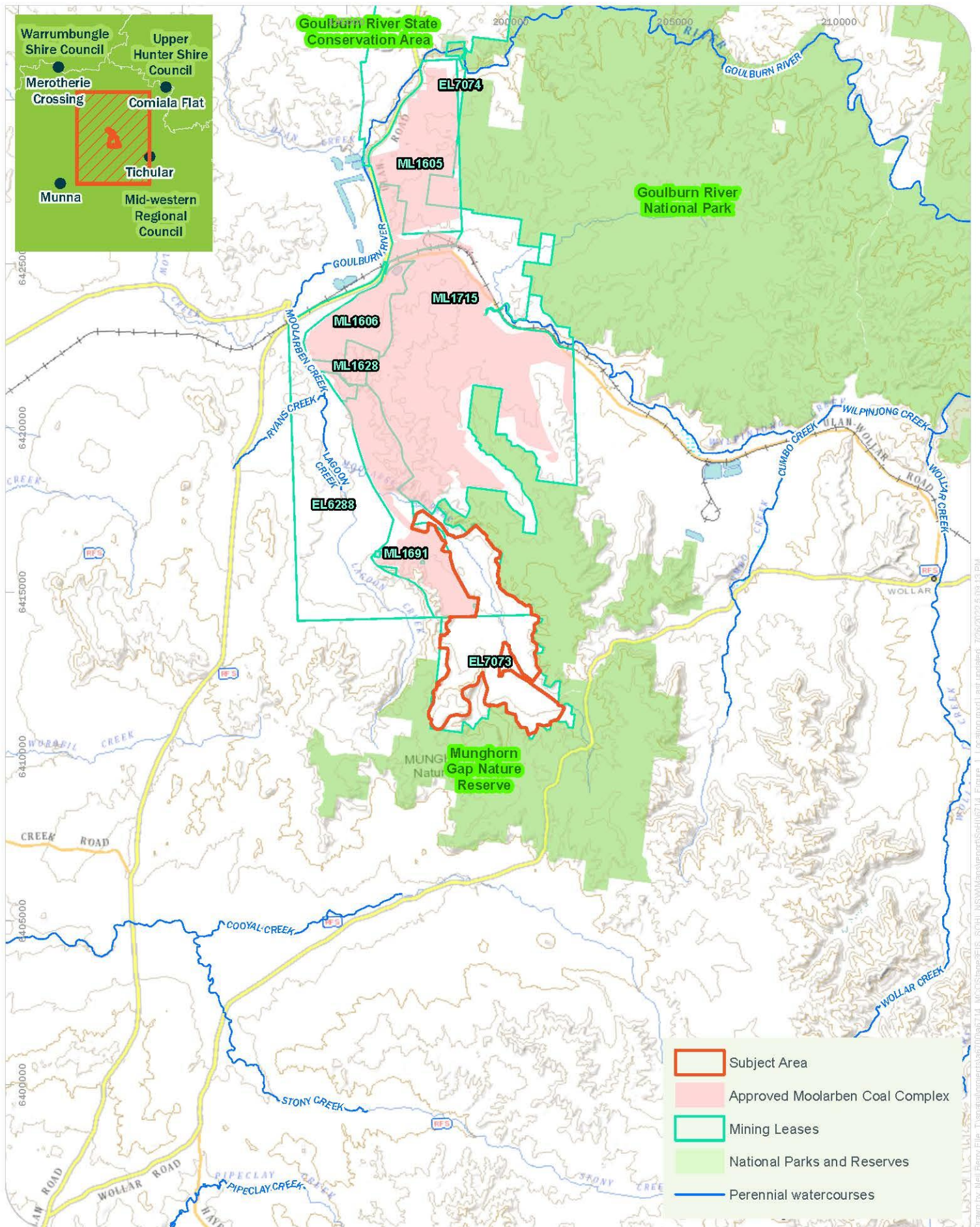
1.4.3 Site inspection

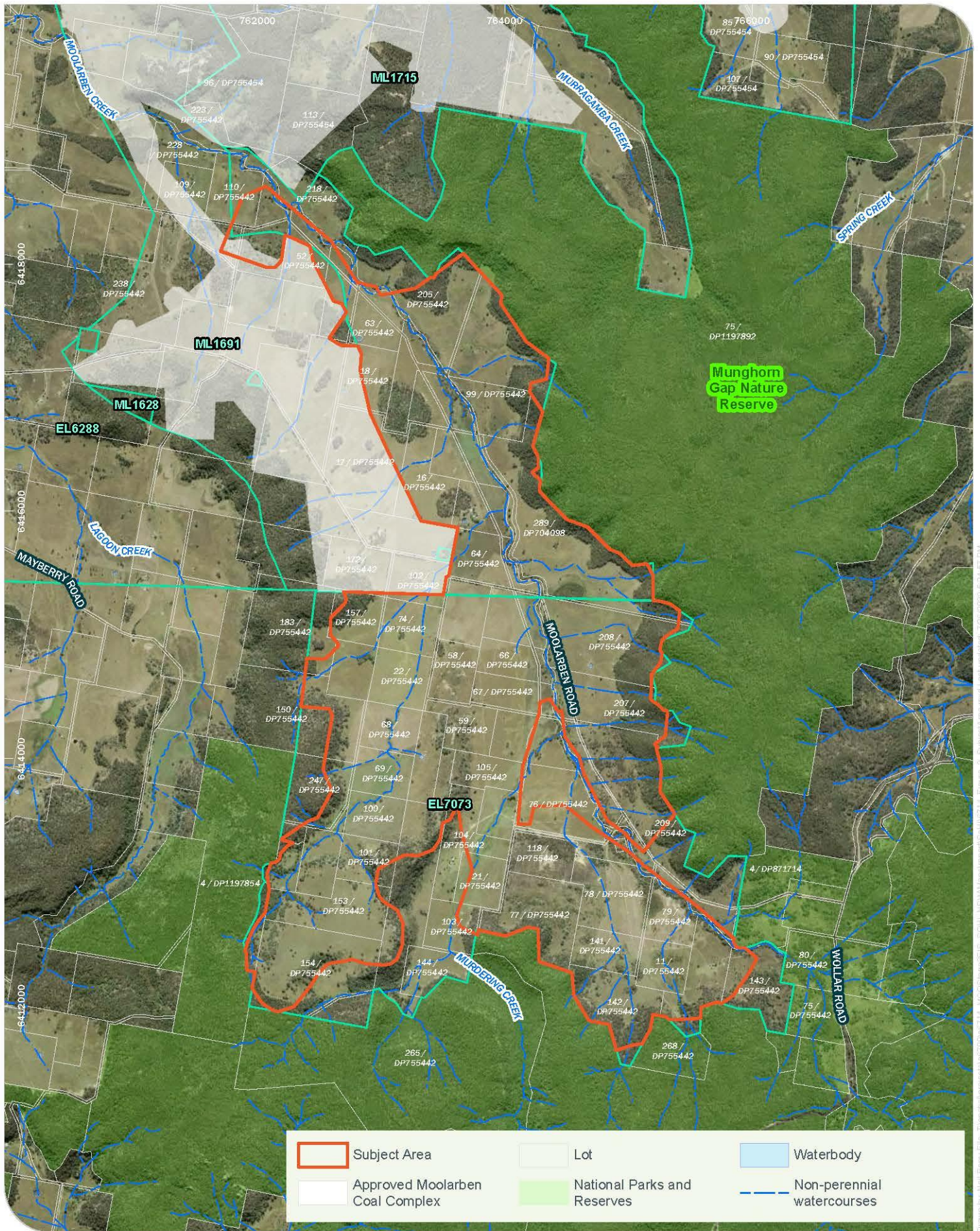
The site inspection was conducted for the purpose of identifying physical evidence that could indicate archaeological resources, structures or other works that may not have been previously identified within or adjacent the Subject Area.

The site inspection of the Subject Area was conducted on 3 March 2022 by Niche (Section 5.1). The site inspection consisted of a walkover of the Subject Area to identify any evidence of remaining archaeological deposits that could be seen from the surface and identify any potential heritage items not found through the desktop research. The site inspection also included taking photographic records of the Subject Area.

1.4.4 Authorship and acknowledgements

This NAHA and SoHI has been written by John McLellan Gillen (Historical Heritage Consultant, Niche), Kosta Contos (Cultural Heritage Consultant, Niche), Carly Todhunter (Cultural Heritage Consultant, Niche), Deirdre Lewis-Cook (Senior Heritage Consultant, Niche), Meaghan Aitchison (Experienced Heritage Consultant, Niche), and Jo Nelson (Associate Heritage Consultant, Niche) with document review and quality control provided by Wendy Thorp (CRM, Principal). Technical assistance was provided by Neil Berry (GIS Consultant, Niche). Unless otherwise attributed, images used in this report are produced by Niche.





2 Regulatory and Assessment Framework

This section provides a summary of relevant legislation and associated planning instruments designed to protect and conserve significant heritage items and their values at the National, State and local level.

2.1 The Burra Charter

This NAHA and SoHI has been prepared in accordance with the principles and methodology contained in The Burra Charter (Australia ICOMOS, 2013).

The Burra Charter outlines a series of best practice principles and measures for heritage investigation and conservation. The Burra Charter is supported by a series of Practice Notes that provide practical advice in the application of The Burra Charter. The Burra Charter was first adopted in 1979 and has been subject to numerous updates with the most recent iteration adopted in October 2013. The policies and legislative guidelines developed by the Heritage Council of NSW are guided by the Burra Charter.

2.2 Environmental Planning and Assessment Act 1979

The EP&A Act establishes the framework for cultural heritage values to be formally assessed in the land use planning process in NSW. The EP&A Act also requires local governments to prepare environmental planning instruments, such as a Local Environment Plan (LEP) which regulate the management of local heritage items and places within a Local Government Area (LGA).

2.2.1 Project Specific Secretary's Environmental Assessment Requirements

SEARs have been issued for the Project under Schedule 2 of the EP&A Regulation. The SEARs outline the requirements for the EIS for the Project. Specific to heritage values, the SEARs states:

- *An assessment of the likely impacts of the development on the historic heritage significance of the site and adjacent areas, prepared by a suitability qualified heritage consultant in accordance with the guidelines in the NSW Heritage Manual.*

This NAHA and SoHI is intended to fulfill the historic (non-Aboriginal) heritage requirements, where relevant, as required by the SEARs.

2.3 Local heritage legislation

2.3.1 Mid-Western Regional Local Environment Plan 2012

The Subject Area is located in the Mid-Western Regional LGA. The Mid-Western Regional LEP makes local environmental planning provisions for land within the Mid-Western Regional LGA in accordance with the relevant standard environmental planning instruments under the EP&A Act.

The Mid-Western Regional LEP also provides for the conservation of heritage places through the establishment of a list of locally significant items, described in Schedule 5 of the Mid-Western Regional LEP. These heritage items are subject to additional planning controls and provisions set out in clause 5.10 (Heritage Conservation) of the Mid-Western Regional LEP.

There are no heritage items listed on the Mid-Western Regional LEP within the Subject Area. However, there are two locally significant heritage items listed on the Mid-Western Regional LEP in the vicinity of the Project.

There are no locally listed heritage items within the Subject Area.

The Munghorn Gap Nature Reserve (MGNR) is listed on the Mid-Western Regional LEP as a locally significant heritage conservation area, and borders the eastern, southern and western extents of the Subject Area.

The Project includes a buffer between the borders of the MGNR and surface disturbance for the Project. With this buffer in place, the Project is unlikely to have an impact on the heritage values of the MGNR, therefore the MGNR is not considered further in this NAHA and SoHI.

The Goulburn River National Park, located approximately 7 km north-east of the Project, is also listed on the Mid-Western Regional LEP as being of local heritage significance. At this distance, the Project is unlikely to have an impact on the heritage values of the Goulburn River National Park, therefore it is not considered further in this NAHA and SoHI.

2.4 NSW State heritage legislation

2.4.1 Heritage Act 1977

State Heritage Register

The *Heritage Act 1977* affords statutory protection to those items identified as having heritage significance and which form part of the NSW heritage record. The *Heritage Act 1977* defines a heritage item as “a place, building, work, relic, moveable object or precinct”. Items that are assessed as having State heritage significance are listed on the SHR. Proposals to alter, damage, move or destroy heritage items listed on the SHR (or protected by an Interim Heritage Order), require an approval under section 60 of the *Heritage Act 1977*.

A search of the SHI identified no items listed on the SHR within the Subject Area.

State Heritage and Conservation (section 170) Registers

Under section 170 of the *Heritage Act 1977*, NSW government agencies are required to maintain a register of heritage assets under their control or ownership. Each government agency is responsible for ensuring that the items entered on its register under section 170 are maintained with due diligence in accordance with State Owned Heritage Management Principles. Items listed on section 170 State Heritage and Conservation Registers are listed on the SHI, and some are also listed on the SHR.

A search of section 170 State Heritage and Conservation Registers identified no items with the Subject Area.

There are no State listed heritage items within the Subject Area.

Permits

Archaeological features and deposits are afforded statutory protection by the ‘relics provisions’ of the *Heritage Act 1977*. Land disturbance or excavation that will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed is prohibited under the provisions of the *Heritage Act 1977*, unless carried out in accordance with a permit issued under section 140 for local heritage sites and section 60 for State heritage sites of the *Heritage Act 1977*.

The two non-listed locally significant heritage items with the Subject Area are protected by these relics provisions. Therefore, MCO either requires a section 140 excavation permit to undertake the excavation/exhumation prior to approval or it can rely on a HMP post-approval, either new or updated to include the Project, in accordance with the exemptions for State Significant Development under section 4.41 of the EP&A Act.

2.5 Commonwealth heritage legislation

2.5.1 Environment Protection and Biodiversity Conservation Act 1999

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Australian Government's central piece of environmental legislation. It provides a legal framework to protect and manage matters of national environmental significance, including heritage places of National significance as well as those that fall under Commonwealth ownership. Under the EPBC Act, protected heritage items of significance are listed on the (NHL) or the CHL. The NHL provides protection to places of cultural significance to the nation of Australia, while the CHL comprises natural, Aboriginal, and historic heritage places owned and controlled by the Commonwealth.

No items listed on the CHL or NHL were identified within the Subject Area.

A delegate of the Commonwealth Minister of Environment and Energy determined on 2 May 2022 that the proposed action is a "controlled action" and therefore the action requires approval under the EPBC Act. However, the controlling provisions are not heritage related and instead relate only to threatened species and communities and water resources.

There are no Commonwealth listed heritage items within the Subject Area

2.6 Summary of listed heritage items

There are no listed heritage items within the Subject Area. The MGNR and Goulburn River National Park are locally listed heritage items in the vicinity of the Project, however the Project is unlikely to have an impact on their heritage values. On this basis, they are not considered further in this NAHA and SoHI.

2.7 Non-listed historical items

A survey and report of non-Aboriginal historical items within the approved OC3 mining area was conducted by Veritas in 2005. This report identified two (2) items located within the Subject Area (Figure 3 and Table 1):

- Site No. 3 Roberts Family Burial Site.
- Site No. 4 M. Robison Homestead (House and Burial Site).

Table 1 identifies non-listed heritage items identified by Veritas (2005) and their proximity to the Subject Area.

Table 1: Non-listed Heritage Items

Item #	Item Name	Easting	Northing	Level of Significance	Proximity to Subject Area
Site No. 3 (Veritas, 2005)	Roberts Family Burial Site	762587	6417995	Local	Within Subject Area.
Site No. 4 (Veritas, 2005)	M. Robison Homestead (House and Burial Site).	762814	6417672	Local	Within Subject Area.

2.8 Previous Investigations

Four non-Aboriginal heritage assessments have been undertaken for the MCC.

Veritas (2005) undertook an investigation for the Moolarben Coal Project Stage 1 and found a total of 54 items, 41 of which were assessed to have heritage significance. Items included houses, farms, and graves. Seven (7) of the identified heritage items were determined as being potentially impacted by the Stage 1 Project, including Site No.3 and Site No. 4 recommendations were made for the archival recording of all seven (7) items and for the exhumation of the two (2) grave items associated with Site No. 3 and Site No. 4. These recommended management measures were later revised in 2019.

Heritas Architecture (2008) undertook a non-Aboriginal heritage study of the mine lease area for the Moolarben Coal Project Stage 2. This study was based on the Veritas (2005) assessment and identified three (3) heritage items which would be directly impacted by the Stage 2 Project, and eight (8) heritage items that had increased potential to be impacted by the Stage 2 Project. For these 11 items it was recommended that further historical research, archaeological assessment, and conservation be undertaken, as well as archival recording of the items.

EMGA Mitchell McLennan (2013) undertook a historical heritage impact assessment for a proposed modification to the Moolarben Coal Project (the Stage 1 Optimisation Modification). The investigation found that no heritage items would be impacted by the proposed modification.

Due to the potential for future disturbance by mining operations, Niche (2017) provided written heritage advice to MCO regarding the management of a potential grave site identified adjacent to the approved OC3 mining area but outside of the then defined surface disturbance footprint. The site is described as consisting of undisturbed, mounded stones, piled in a discrete location across an area of approximately 3.3m x 2m. Discussions with a local resident indicated that burial may have taken place c.1905. Recommendations from Niche (2017) for management of the site included further assessment should mining operations expand to include the area surrounding the site.

3 Historical Context

This section discusses the history of the locale surrounding the Subject Area and provides an overview of its historical context. This context provides the evidence required to understand the place of the Subject Area within the region and, therefore its importance to the community. It also provides information to address the heritage values of the built environment and the potential for archaeological evidence.

3.1 Regional historical context

3.1.1 Early Historical context

The wider region surrounding the Subject Area was appropriated by pastoralists from the 1820s onwards, although settlement take-up was slow until the later nineteenth century, with land-acquisition activity in the nearby Ulan area peaking in the mid-1870s and early 1890s (Veritas, 2005). Gold mining ventures during the middle of the nineteenth century brought more colonists to the region, as well as prompting bushranging and greater policing in turn. The growth of service towns and villages in the later part of the nineteenth century is typical of wider trends in colonial Australia, with more intensive exploitation and settlement patterns largely corresponding with wider demographical and economic trends. This also involved the gradual depopulation of farming properties during the mid to late twentieth century as mechanisation and changing pastoral and agricultural practices removed the need for prior levels of on-site manpower.

Development of Moolarben/Nearby Towns

The Subject Area is within the upper valley of the Moolarben Creek, a tributary of the Goulburn River, which extends into the MGNR. This area was formally opened up for settlement in the late 1830s and 1840s (New South Wales Government Gazette, 1839; 1841; 1849). Although a village reserve was gazetted in the 1840s, closer settlement of the area only occurred much later, mainly between the 1890s and 1930s. While minor timber extraction and mining prospecting are likely to have occurred in the Subject Area, there is little historic record. Pastoralism was the dominant economic activity, and corporate ownership and leasing of land was common.

The village of Ulan was proclaimed on 21 August 1897 on the west bank of the Goulburn River where Moolarben Creek joins the river. Ulan increased in size and population during the 1950s following the construction of the Ulan Power Station located immediately north of the Ulan Village (Veritas, 2005). The operation of the Ulan Power Station allowed for the commencement of the coal mining industry.

The locality of Moolarben continued to grow, and by the early twentieth century, Moolarben established a local cricket team, a provisional school, a Catholic church and a Women's Improvement Club (Mudgee Guardian, 1899; New South Wales Government Gazette, 1904; Mudgee Guardian, 1907; Mudgee Guardian, 1912).

Land settlement in the Moolarben area occurred later compared to the surrounding localities (Veritas, 2005). The early settlers obtained land predominately along Lagoon Creek and Moolarben Creek (Plate 1). Some of the early landholders who were successful in obtaining land included Swords, Robinson, Roberts and Blackman (pers. comm H. Morgan: 2005). The landholders were very much self-sufficient and very little goods were brought in. This is evident in the large numbers of fruit trees that remain on early landholdings (Veritas, 2005).

The Subject Area was historically dominated by cattle and sheep grazing, however the land was in poor condition and large scale agriculture was not widely practiced (EMGA Mitchell McLennan, 2013). Many landholders owned horses and cattle, and others with sheep and pigs, all of which provided a stable source of food and income.

3.1.2 Mining History of the Mid-Western Regional LGA

Coal mining commenced in the Ulan area in the early 1920s, with underground panel and pillar mines constructed by a local family. Coal mining in the Ulan area grew and supplied power to the Ulan power station, which was constructed during the 1950s.

Coal mining in the Mid-Western Regional LGA has grown rapidly since the early 2000s, primarily as a result of the approved Wilpinjong Coal Mine, the expanded Ulan Coal Mine, and Stage 1 and Stage 2 of the MCC.

Historical Context of Site No. 3 – Roberts Family Burial Site

The land in which the burial site is situated, located within the Subject Area adjacent the approved OC3 mining area, was originally selected by John Carlisle in 1883, where it was then owned by the Roberts family during the twentieth century (Veritas, 2005) (Plate 2).

Historical Context of Site No. 4 – M Robison Homestead (House and Burial Site)

The former homestead was selected by M Robison in 1875. The site consists of a chimney base, pieces of timber and corrugated iron that may have originated from the chimney. Currently, very little evidence of the building remains on the surface.

Historical Context of Potential Grave Site

A Heritage Advice Letter (HAL) was provided by Niche (2017) regarding a potential grave site, located within Lot 18 DP 755442, adjacent to the approved OC3 mining area but outside of the then defined disturbance footprint. Because the site was located outside of the disturbance footprint, no further assessment was undertaken.

The potential grave site is marked by a mound of stones which have been piled in a discrete location in the landscape, measuring approximately 3.3 m x 2 m. The stones appear to be undisturbed, with some embedded in the subsoil.

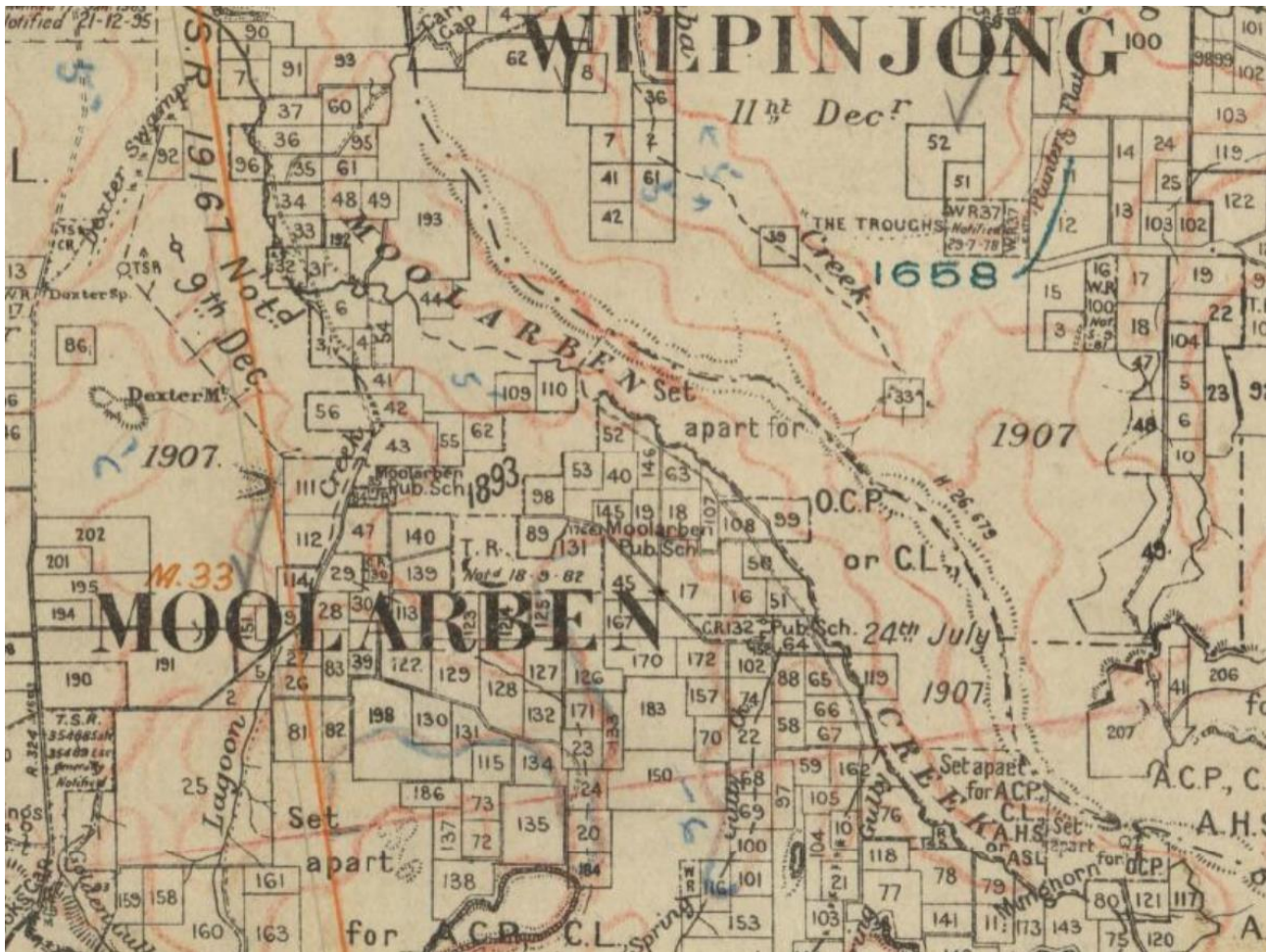


Plate 1: Local area including Subject Area with Lagoon Creek and Moolarben Creek visible, c.1908
(Source: National Library of Australia)

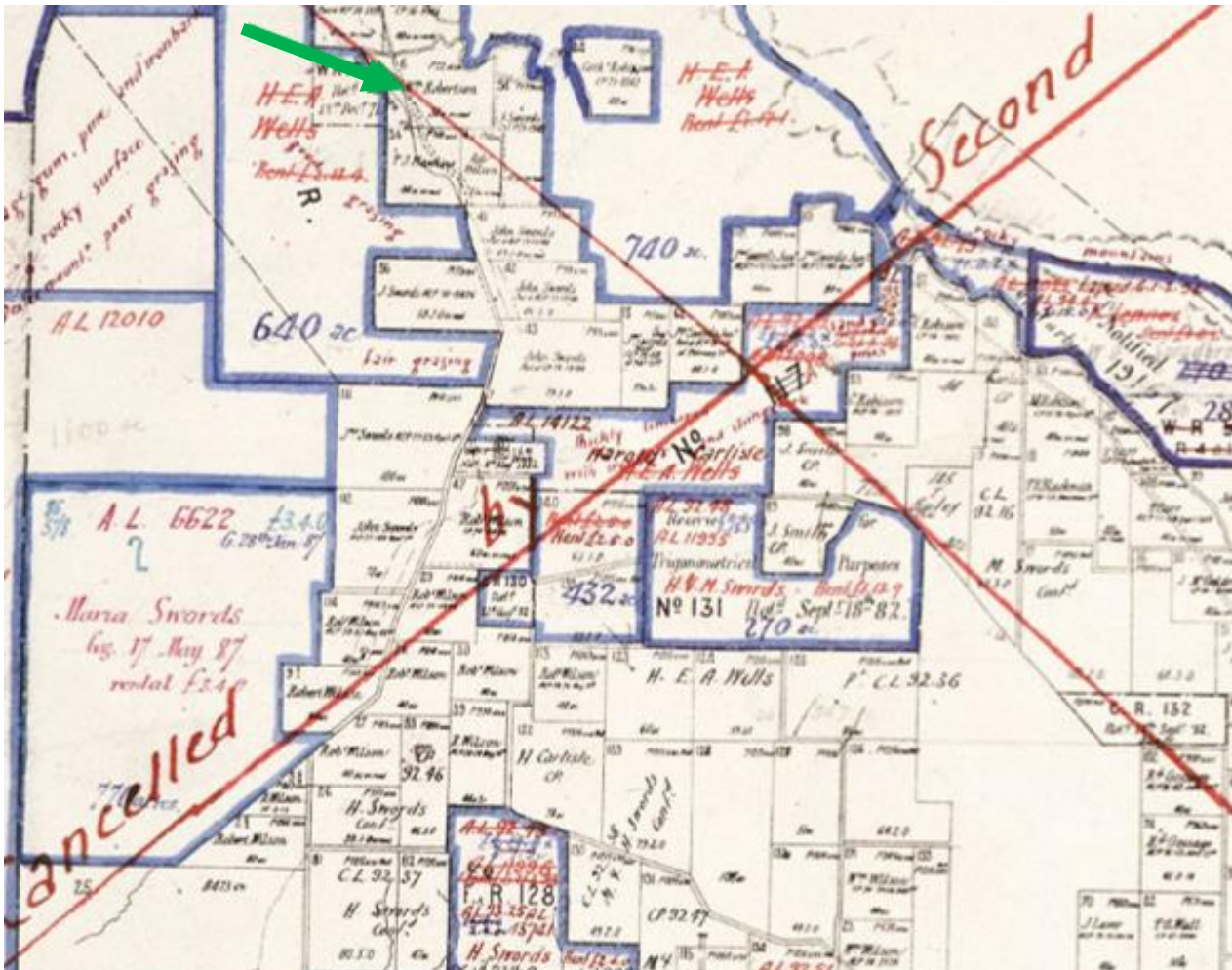


Plate 2: Early Land grant in Subject Area, c.1884. Green arrow shows Robertson property (Source: NSW Lands Registry Services)

3.2 Historical phases of the Subject Area

The Subject Area has undergone several phases of historical land use, as summarised in Table 2.

Table 2: Historical Phases of Subject Area

Historical Phase	Description of phase
Phase 1: Pre-Settlement	Primary Aboriginal occupation, pre 1820s.
Phase 2: Pastoral Expansion	Implantation of Pastoral economy, 1820s-1880s.
Phase 3: Community Peak	Increased settlement and local infrastructure, 1880s-1930s.
Phase 4: Recreational Shift	Farming community declines, recreational use increases, 1930s+.
Phase 5: Coal Mining	Commencement of Moolarben Coal Complex operations in 2010.

These phases are briefly discussed in the following sections which relate to the Subject Area.

3.2.1 Phase 1: Pre-settlement

Archaeological and historical evidence points to considerable Aboriginal occupation of the wider area. This occupation was typically concentrated in the vicinity of major waterways, and in the vicinity of permanent water sources. The earliest material evidence of Aboriginal occupation in the Moolarben region was found at Granites 2 Shelter, located approximately 150 km south-west of the Subject Area, and dating to 7,000 years before present (BP) (Pearson, 1981). A number of other archaeological excavations have been undertaken in the nearby area and provided evidence of Aboriginal occupation in the last 5,000 years (Kuskie, 2009).

3.2.2 Phase 2: Pastoral expansion

Between 1820s and 1880s Aboriginal people were dispossessed from their traditional country by pastoral expansion. Local towns and villages developed during this time, albeit slowly. Settlement in the area during this time was also very sparse. Isolated farms were amalgamated in the 1880s and 1890s into larger holdings (Veritas, 2005).

3.2.3 Phase 3: Community peak

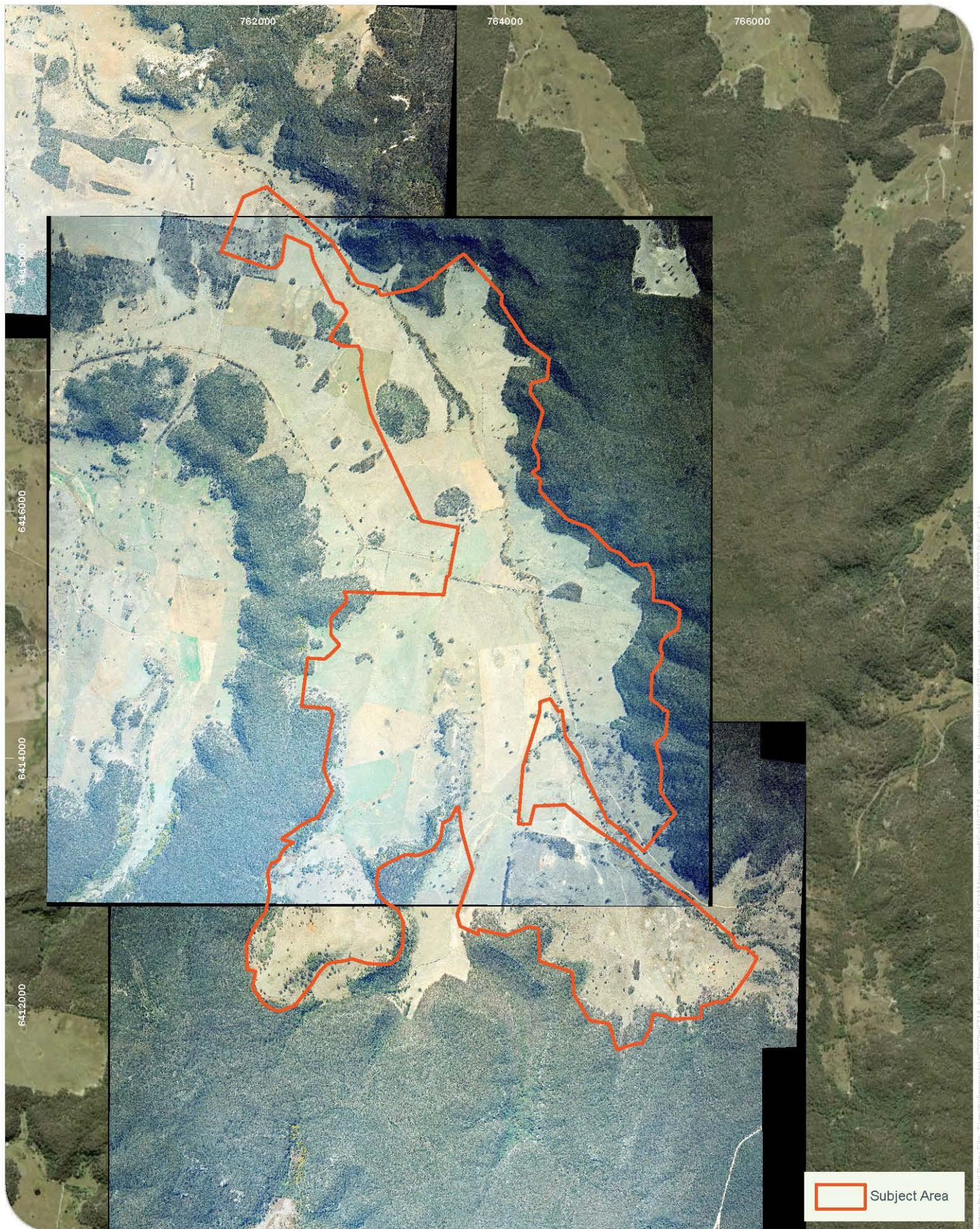
The communities of Moolarben and Munghorn peaked during the period between the 1880s and 1930s. Schools were opened, a church building was used, and various communal activities occurred which highlight closer settlement processes and the formation and maintenance of strong local identities.

3.2.4 Phase 4: Recreational shift

During the 1920s the arrival of motorised touring saw Munghorn become a recreational destination of considerable local interest. Aboriginal sites were publicised for public viewing, camping facilities were installed, and recreational tracks created. The increase in tourism improved the recreational value of the area and led to the instigation of the Munghorn Gap Faunal Reserve. It was originally gazetted as a reserve in 1961 under the *Fauna Protection Act 1948* “for the purpose of protection and care of fauna, the propagation of fauna and the promotion of the study of fauna”. In 1967, the reserve was extended and renamed as the Munghorn Gap Nature Reserve (NSW National Parks and Wildlife Service, 2003).

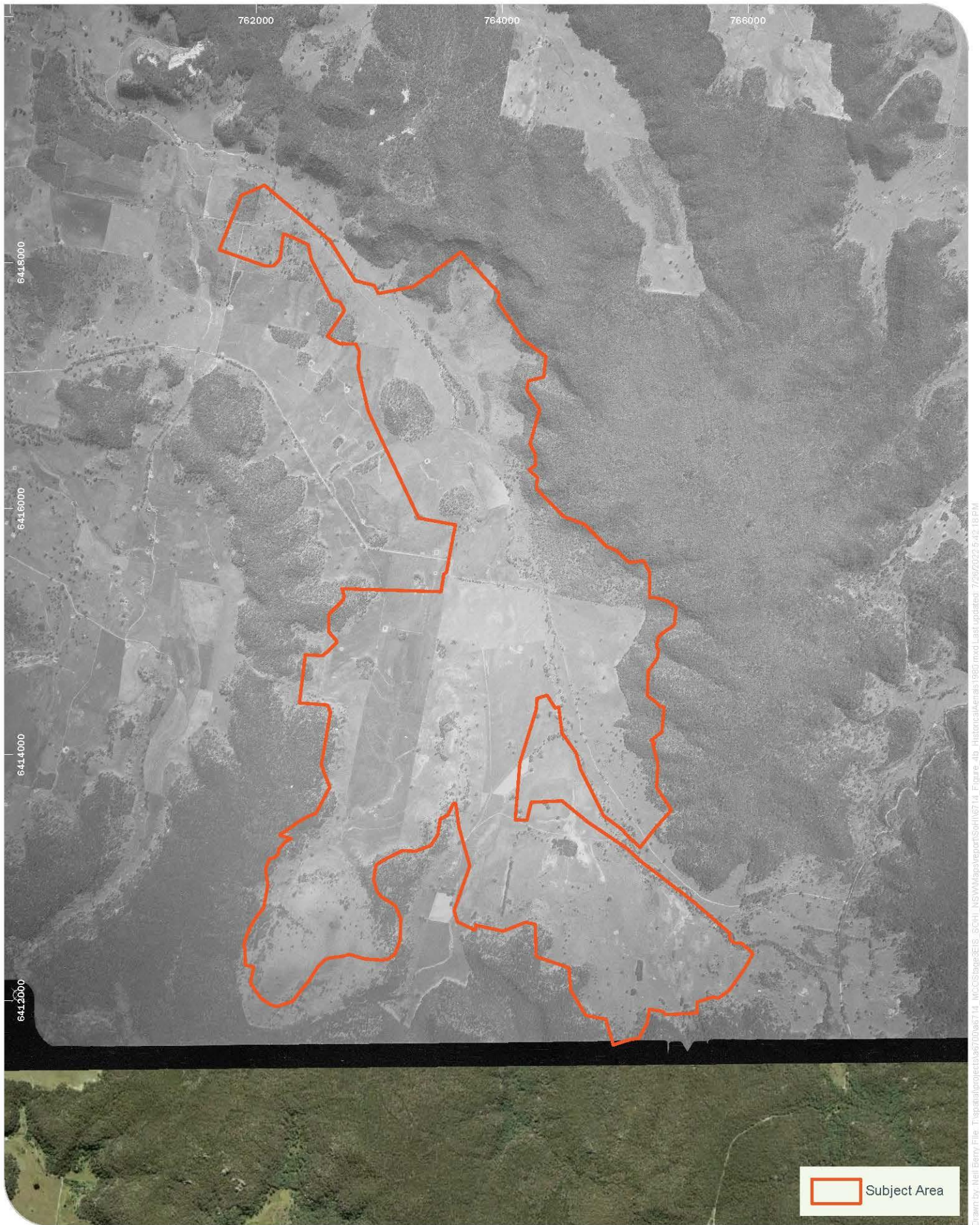
3.2.5 Phase 5: Coal mining

Coal mining operations at the MCC commenced in 2010 following approval in 2007. Surrounding mining operations in proximity to the Subject Area include the Wilpinjong Coal Mine (approval granted in 2005), and the expanded Ulan Coal Mine (approval granted in 2010).



Historical Aerial Photograph of the Subject Area - 1994
MCC OC3 Extension Project - SoHI

Figure 4a 1994



Historical Aerial Photograph of the Subject Area - 1980
MCC OC3 Extension Project - SoHI

 Subject Area

4 Physical Analysis

The following section details the physical description of the Subject Area as well as outlining any potential archaeological sites. This section will also provide evidence of the conditions of known extant heritage items and describe the history of land use within the Subject Area.

4.1 Site inspection

4.1.1 Methodology

The site inspection was informed by the desktop research. The site inspection was conducted on foot (pedestrian), with the aim to identify surface archaeology and additional potential heritage items not found during the desktop research. Observation of surface archaeology was also used to inform the potential for subsurface archaeology. Field data was captured in the format of digital images and waypoints.

The site inspection of the Subject Area was conducted on 3 March 2022, by Niche.

4.1.2 General description of the Subject Area

The Subject Area is located within a valley which is surrounded by gently undulating landforms on the north-eastern and south-western sides. The Subject Area is currently largely used for pastoral or farming activities and divided up into paddock or lots for tenant farmers. The development of agricultural activities within the Subject Area can be identified in historical aerial photographs from 1994, 1980 and 1964 (Figures 4a to 4c).

The Subject Area is located within the Moolarben Creek catchment. Moolarben Creek, a tributary of the upper Goulburn River catchment is the main drainage feature associated within the Subject Area. Moolarben Creek commences in the MGNR to the south-east, and then flows in a northern direction through the Subject Area. Murdering Creek is a tributary of Moolarben Creek, which commences in the MGNR to the south.

4.1.3 Surface visibility

The surface visibility observed during the site inspection was very poor throughout the Subject Area, due to almost 100 percent (%) ground coverage by grass or vegetation debris.

4.1.4 Built heritage items

No significant built heritage items or relics were identified during the site inspection.

Other remnant residential and storage structures relating to farming were observed during the inspection (Appendix A). The external fabric of the two residential buildings comprised of recent (i.e. undertaken within the last 10 years) modifications and/or maintenance, with the main building structures assumed as constructed from 1960 to the late-1970s.

4.1.5 Services

Services were identified within the Subject Area; however, they were limited to overhead cables in proximity to the modern dwellings described in Section 5.1.3. No additional services were identified in proximity to heritage items previously identified by Veritas (2005).

4.1.6 Moveable heritage

There was no moveable heritage identified in the Subject Area during the site inspection.

4.2 Identified archaeological places

4.2.1 Site No. 3

Site No. 3 contains two burial sites and cairn-like structures comprising small to medium angular limestone. Remnant stone was found on the surface within an area of low grassland. The multiple burial sites present at Site No. 3 have high potential for archaeological resources. A dense organic layer is visible on the ground surface. Potential burial sites were identified both in the centre of Site No. 3, as well as to the north-east. The area has very poor surface visibility due to almost 100% ground cover. Disturbance associated with grazing activities and native fauna was observed during the site inspection.

4.2.2 Site No. 4

Site No. 4 was found to contain a potential burial site in a fenced-off location (consistent with the current management requirements in the MCC HMP). Poor ground visibility was observed at this time due to approximately 100% of the surface being covered by native vegetation. The presence of a rose bush at this location was potentially marking this burial site.

A potential burial site situated south of Site No. 4 and marked with rocks in a very poor condition. This burial site is situated within a raised area (potentially a hillock) that may have been associated with a former residence. The rocks marking this location are covered with moss and lichen. The burial site has been subject to disturbance.

Site No. 4 also includes remnants of a former homestead.

4.2.3 Potential Burial Site

The potential burial site has previously been subject to investigation by Niche (2017). The site is located in an isolated area on the edge of a patch of vegetation, surrounded by a few scattered trees and shrubs. The potential grave site is marked by a mound of stones which have been piled in a discrete location in the landscape, measuring approximately 3.3 m x 2 m. The stones appear to be undisturbed, with some embedded in the subsoil. The site was not subject to further inspection during this assessment.

Images taken from the site inspections, the current Niche assessment and the 2017 investigation, are presented in Appendix A.

4.3 Cultural landscape

The purpose of this section is to provide an analysis and description of the Subject Area as part of a cultural landscape. The cultural landscape concept emphasises the landscape-scale of history and the connectivity between people, places and heritage items. It recognises the present landscape is the product of long-term and complex relationships between people and the environment. For the purposes of this report, non-Aboriginal heritage landscapes are defined as: *'... those areas which clearly represent or reflect the patterns of settlement or use of the landscape over a long time, as well as the evolution of cultural values, norms and attitudes toward the land'* (DoP, 2009).

4.3.1 An overview of cultural landscapes

In order to fully understand the heritage significance of the Subject Area it is necessary to consider the character of the landscape within which it is situated. The heritage value of a landscape may be related to its aesthetic, archaeological, historical, scientific, social, or architectural values, and each or all these values can exist at any one time. The identification of these values is important in discussing the Subject Area and its constituent elements of heritage significance.

Three general landscape categories have been developed and applied by heritage organisations to assist in understanding different types of landscapes:

- **Designed landscapes:** Those that are created intentionally such as gardens, parks, garden suburbs, city landscapes, ornamental lakes, water storages and campuses.
- **Evolved landscapes:** Those that display an evolved land use in their form and features. They may be 'relict' such as former mining or rural landscapes. They may be 'continuing' such as modern active farms, vineyards, plantations, or mines.
- **Associative cultural landscapes:** Those are landscape features that represent religious, artistic, sacred, or other cultural associations to individuals or communities.

4.3.2 Subject Area(s) as a cultural landscape

The non-Aboriginal heritage landscape of the Subject Area is defined by its historical use for agricultural and grazing activities. Remnant homesteads, sheds and associated farm buildings embody the rural character of the area and the livelihood of the inhabitants of the valley. Their continued use and modification are typical of an evolved rural landscape and provide a glimpse into the types of activities that took place over the twentieth century. The interaction between elements of the built environment (e.g. fencing, tracks, and food storage) provides an impression of the scale of farming activities that were undertaken and the extent of non-Aboriginal human intervention within the natural landscape.

The modification of these structures over time has removed some of the original fabric of these structures, however, this alteration provides an account of the livelihood of the previous inhabitants and how they responded to environmental challenges.

4.4 Archaeological research potential

Archaeological research potential is shaped by the local geographical and topographical factors, the level of development and the associated impacts, levels of onsite fill and any factors that influence the preservation of archaeological deposits such as soil type.

An assessment of archaeological research potential has been derived from the desktop analysis undertaken during the preparation of this report.

Archaeological relics are irreplaceable and have the potential to contribute to historical knowledge and understanding using information otherwise unavailable.

Archaeological research potential can range from very low to high, as per Table 3.

Table 3: Grades of archaeological research potential

Grade	Definition
Very Low	The degree of ground disturbance suggests minimal or no potential for any archaeological evidence to survive.
Low	It is unlikely that any archaeological evidence survives or is present.
Moderate	Some archaeological evidence associated with a particular historical phase or feature survives. It may be subject to some disturbance.
High	It is likely that archaeological evidence associated with this historical phase or feature survives intact.

Source: DoP (2009)

Using the results of the historical analysis and an assessment of the physical characteristics of the Subject Area, an estimation of archaeological research potential has been prepared. Archaeological research potential is assessed separately to heritage significance, but the two can inform each other. The archaeological research potential relating to the identified historical phases is presented in Section 4.2 and in Table 4 below.

Table 4: Archaeological research potential of the Subject Area

Site name/heritage place	Archaeological Research Potential
Site No. 3 Roberts Family Burial Site	High
Site No. 4 M. Robison Homestead (House and Burial Site).	High
Potential burial site	High

5 Assessment of Heritage Significance

5.1 Methodology for assessing significance

The NSW Heritage Manual guideline, *Assessing Heritage Significance* (NSW Heritage Office, 2001), provides the following significance assessment and Statement of Significance framework. These guidelines incorporate the seven aspects of cultural heritage value identified in the *Burra Charter* (Australia ICOMOS, 2013) into a framework currently accepted by the NSW Heritage Council and Heritage NSW.

5.1.1 Criteria for assessing heritage significance

The heritage significance criteria are outlined in *Assessing Heritage Significance* (NSW Heritage Office, 2001) are summarised in Table 5. Using this criterion, a place can be assessed to be of local, State or no heritage significance.

Table 5: Heritage Significance Criteria

Criteria	Value	Description
Criterion A)	Historical Significance	An item is important in the course, or pattern, of NSW's cultural or natural history (or the cultural or natural history of the local area).
Criterion B)	Associative Significance	An item has strong or special association with the life or works of a person or group of persons, of importance in NSW's cultural or natural history (or the cultural or natural history of the local area).
Criterion C)	Aesthetic Significance	An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area).
Criterion D)	Social Significance	An item has strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons.
Criterion E)	Research potential	An item has the potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the cultural or natural history of the local area).
Criterion F)	Rarity	An item possesses uncommon, rare or endangered aspects of the area's cultural or natural history (or the cultural or natural history of the local area).
Criterion G)	Representativeness	An item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places, or cultural or natural environments (or a class of the local area's cultural or natural places, or cultural or natural environments.)

5.1.2 Grading of significance

A five-tier system detailing levels of significance is outlined in *Assessing Heritage Significance* (NSW Heritage Office, 2001). The grading system is used to identify the overall significance of items or sites being assessed. The levels of significance and their justification to be applied to items is listed in Table 6 below.

Table 6: Gradings of significance

Grading	Justification	Status
Exceptional	Rare or outstanding element directly contributing to an item's local or State listing.	Fulfills criteria for local and/or State listing.
High	High degree of original fabric. Demonstrates a key element of the item's significance. Alterations do not detract from significance.	Fulfills criteria for local and/or State listing.
Moderate	Altered or modified elements. Elements with little heritage value, but which contribute to the overall significance of the item.	Fulfills criteria for local and/or State listing.
Little	Alterations detract from significance. Difficult to interpret.	Does not fulfill criteria for local or State listing.
Damaging	Damaging to the item's heritage significance.	Does not fulfill criteria for local or State listing.

5.2 Significance Assessments for Heritage Items

Tables 7 and 8 detail the assessment of the Subject Area (i.e. Site No. 3 and 4, respectively) using the guidelines *Assessing Significance for Historical Archaeological Sites and 'Relics'* (DoP, 2009) and *Assessing Heritage Significance* (NSW Heritage Office, 2001):

Table 7: Assessment of Site No. 3 using Heritage NSW Criteria

Heritage NSW Criteria	Assessment
<i>Criterion (a) an item is important in the course, or pattern, of NSW's cultural or natural history (or the local area)</i>	Site No. 3 is not of heritage significance under this criterion.
<i>Criterion (b) an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the local area)</i>	Site No. 3 is not of heritage significance under this criterion.
<i>Criterion (c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)</i>	Site No. 3 is not of heritage significance under this criterion.
<i>Criterion (d) an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons (or the local area)</i>	The site is a known resting place of the Roberts Family. The site has a strong connection to the Roberts Family who still live in the region. The site meets local significance criteria with under this criterion (Veritas, 2005).

Heritage NSW Criteria	Assessment
<i>Criterion (e) an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the local area)</i>	Veritas (2005) indicated that the item needs to be further explored to understand its significance fully. Further investigation about the site will likely contribute to the overall significance of the area. The site meets local significance criteria with high value (Veritas, 2005).
<i>Criterion (f) an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the local area)</i>	Site No. 3 is not of heritage significance under this criterion.
<i>Criterion (g) an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or cultural or natural environments (or the local area)</i>	Site No. 3 is not of heritage significance under this criterion.

Table 8: Assessment of Site No. 4 using Heritage NSW Criteria

Heritage NSW Criteria	Assessment
<i>Criterion (a) an item is important in the course, or pattern, of NSW's cultural or natural history (or the local area)</i>	Site No. 4 is not of heritage significance under this criterion.
<i>Criterion (b) an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the local area)</i>	Site No. 4 is not of heritage significance under this criterion.
<i>Criterion (c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)</i>	Site No. 4 is not of heritage significance under this criterion.
<i>Criterion (d) an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons (or the local area)</i>	Site No. 4 is not of heritage significance under this criterion.
<i>Criterion (e) an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the local area)</i>	Veritas (2005) indicated that the item needs to be further explored to understand its significance fully. Further investigation about the site will likely contribute to the overall significance of the area. The site meets local significance criteria with moderate value (Veritas, 2005).
<i>Criterion (f) an item possesses uncommon, rare or endangered aspects</i>	Site No. 4 is not of heritage significance under this criterion.

Heritage NSW Criteria	Assessment
<i>of NSW's cultural or natural history (or the local area)</i>	
Criterion (g) an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or cultural or natural environments (or the local area)	Site No. 4 is not of heritage significance under this criterion.

Table 9: Assessment of Potential burial site using Heritage NSW Criteria

Heritage NSW Criteria	Assessment
Criterion (a) an item is important in the course, or pattern, of NSW's cultural or natural history (or the local area)	The potential burial site is not of heritage significance under this criterion.
Criterion (b) an item has strong or special association with the life or works of a person, or group of persons, of importance in NSW's cultural or natural history (or the local area)	The potential burial site is not of heritage significance under this criterion.
Criterion (c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area)	The potential burial site is not of heritage significance under this criterion.
Criterion (d) an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons (or the local area)	Discussions with a local resident, Ken Mayberry, in 2017 indicated that Mr Mayberry believed that twins on his grandmother's side of the family were buried on the site, in c.1905. The site has potential connection to the Mayberry family who still live in the region. Further investigation undertaken during an exhumation process would confirm whether the site meets local significance criteria with under this criterion.
Criterion (e) an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history (or the local area)	The item needs to be further explored to understand its significance fully. Further investigation about the site will likely contribute to the overall significance of the area. The site meets local significance criteria with high value.
Criterion (f) an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history (or the local area)	The potential burial site is not of heritage significance under this criterion.
Criterion (g) an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or cultural or	The potential burial site is not of heritage significance under this criterion.

Heritage NSW Criteria	Assessment
<i>natural environments (or the local area)</i>	

5.3 Summary of Significance Assessment

Through desktop research, review of previous heritage assessment and the site inspection, the Subject Area has been assessed as containing historic heritage items, Site No. 3 Roberts Family Burial Site, Site No. 4. Robison Homestead (House and Burial Site), and a potential burial site (Figure 3).

The historic heritage items have been assessed as having high local significance (Site No. 3), moderate local significance (Site No. 4) (consistent with Veritas [2005]), and moderate-high local significance (potential burial site) and have all been assessed as having high archaeological research potential. Additional archaeological investigation will contribute to the overall understanding and significance of these items.

6 Heritage Impact Assessment

This section provides the assessment of the potential heritage impacts of the Subject Area.

6.1 Potential impacts

Impacts to historical heritage items and landscapes are defined as follows:

- Direct/Major – the fabric or values of the historic heritage item or landscape would be altered and diminish its significance, impacts are major, and/or cannot be reversed.
- Indirect/Minor – the fabric or values of the historic heritage item or landscape would be altered though significance is unaffected, impacts are minor, and/or can be reversed; (e.g., through repairs or restoration).
- None – no impacts to significant fabric or values are expected.

All heritage items located totally or partially within the extent of the open cut pits, infrastructure and ancillary development areas would be directly impacted through surface disturbance activities. Site No. 3, Site No. 4, and the potential burial site all extend partially into or are entirely within the indicative surface disturbance extent and would therefore be directly impacted by the Project. There are no heritage items and/or places within the Subject Area or in close proximity to the Subject Area that would be indirectly impacted by the Project (e.g. blasting).

6.2 Cumulative impacts

Whilst the Project would directly impact Site No. 3, Site No. 4, and the potential burial site, all being of non-listed local heritage significance, the Project would have no impact on any listed items or areas of heritage significance and would therefore have no significant impact to historic heritage values in the Project region when considered cumulatively with the existing Moolarben Coal Complex and other projects in the region.

7 Statement of Heritage Impact

This section presents SoHIs for those heritage items that may be subject to potential impacts from the Project. The below outlines the various aspects of the Project that may impact on the heritage significance of affected items, reproduced from the OEH guidelines for preparing SOHIs.

Aspects of the proposed works that respect or enhance the heritage significance of the item or conservation area.

There are no aspects of the Project that would enhance the identified heritage values within the Subject Area. However, by undertaking this heritage assessment a better understanding of the local heritage has been obtained.

Archival recording of heritage items of local significance that would be impacted directly by the Project would be undertaken to fully record the heritage values of the affected items if they have not been previously recorded. The Subject Area contains an identified resource relating to past historical pastoral grazing and farming. The majority of the buildings were constructed after 1950 and may have some value except in respect to their potential to provide information relevant to mid-twentieth century pastoral and farming practices. The structures and fabric present no cultural significance when assessed against the above criteria of *Assessing Significance for Historical Archaeological Sites and 'Relics'* (DoP, 2009) and *Assessing Heritage Significance* (NSW Heritage Office, 2001).

Aspects of the proposed that could detrimentally impact on heritage significance.

There are no aspects of the Project that would detrimentally impact on heritage values and significance within the Subject Area.

Have sympathetic solutions been considered and discounted?

For sites of high archaeological research potential and local heritage significance, appropriate management and mitigation measures will be implemented including excavation/exhumation of Site No. 3, Site No. 4 and the potential burial site remains.

In summary, portions of the Subject Area meet local significance criteria.

Site No. 3 Family graves

Site No. 3 criterion (d) for associative significance and has local heritage significance as the resting place of the Roberts Family. The Roberts family has a strong connection with the descendant who still live in the Moolarben and Ulan areas.

Site No. 3 has the potential to yield information about the local area through archaeological relics and therefore meets criterion (e).

Site No. 4

Further investigation of Site No. 4 will likely contribute to the overall significance of the area. Criterion (e) (Table 5) research potential of Site No. 4 is provided in the archaeological potential for subsurface deposits, and within the existing archaeological remnants scattered across the Subject Area.

The Potential Burial Site

Further investigation of the potential burial site will likely contribute to the overall significance of the area. Criterion (e) (Table 9) research potential of the potential burial site is provided in the archaeological potential for subsurface deposits, and within the existing archaeological remnants scattered across the Subject Area.

8 Conclusions and Recommendations

8.1 Conclusions

MCO is seeking approval to extend existing MCC open cut mining operations immediately south of the approved OC3 mining area and develop four new open cut pits south and south-east of the approved OC3 mining area, which would provide approximately 10 years of mining (from 2025 to 2034), maximise use of existing mining fleet, and maintain steady production of run-of-mine coal at the MCC post-completion of mining within the OC3 mining area.

There are two known non-listed heritage items of local significance within the Subject Area (i.e. Site No. 3 and Site No. 4) previously identified by Veritas (2005). There are no heritage listed items within the Subject Area.

8.1.1 Site No. 3 Roberts Family Burial Site

The Roberts Family Burial Site is a place of local heritage significance. It is located within the Project disturbance footprint north of the Subject Area and would therefore be directly impacted by the Project.

The site comprises of known burial sites of a distant relative to the Roberts Family who reside locally in the area. The site is of high local significance and meets NSW Heritage Office assessment criterion D and E (Section 6.1.1). The Project would directly impact Site No. 3 and therefore, exhumation procedures must be undertaken prior to commencement of operations. Discussion with the related families to be held prior to exhumation.

As per the approved MCC HMP, management actions in place for Site No. 3 Roberts Family Burial Site, include archival recording and incorporation of a fenced boundary to mitigate site disturbance. However, as the burial site is to be directly impacted by the Project, where disturbance is unavoidable, the appropriate exhumation process must be undertaken prior to commencement of operations. A discussion with the related families should take place prior to exhumation works.

8.1.2 Site No. 4 M. Robison Homestead

Site No. 4 – M Robison Homestead is a place of local heritage significance. It is located within the Project disturbance footprint north of the Subject Area and would therefore be directly impacted by the Project.

Site No. 4 comprises remnant structures of the former Robison homestead, as well as a single rose bush marking a possible burial site. As a result, the heritage site possesses moderate local significance and meets NSW Heritage Office assessment criterion (e) (Section 5.2). The Project would directly impact Site No. 4 and therefore, exhumation procedures must be undertaken prior to commencement of operations. Discussion with the related families to be held prior to exhumation.

As per the approved MCC HMP, management actions in place for Site No.4 M Robison Homestead, include archival recording and incorporation of a fenced boundary to mitigate site disturbance. However, as the burial site and remaining structures of the homestead are to be directly impacted by the Project, where disturbance is unavoidable, the appropriate exhumation process must be undertaken prior to commencement of operations. A discussion with the related families should take place prior to exhumation works.

8.1.3 Potential Burial Site

The potential burial site is a place of local heritage significance. It is located within the Project indicative surface disturbance footprint and would therefore be directly impacted by the Project.

This site comprises a possible burial site marked by a mound of stones which have been piled in a discrete location in the landscape, measuring approximately 3.3 m x 2 m. The stones appear to be undisturbed, with some embedded in the subsoil. The potential grave site is located within Portion 107 in one of Herbert Sword's early land selections (Niche 2017).

As a result, the heritage site possesses moderate local significance and meets NSW Heritage Office assessment criterion (e) (Section 5.2).

The potential burial site is not included in the current approved MCC HMP. Niche recommends that, in-line with recommendations for other burial sites in the area, management actions should include archival recording. However, as the burial site is to be directly impacted by the Project, the appropriate exhumation process must be undertaken prior to commencement of operations. A discussion with the related families should take place prior to exhumation works. The approved MCC HMP should be amended to include this potential burial site.

8.2 Recommendations

In relation to the known burial sites, prior to any surface disturbance in the vicinity of the sites, it is recommended a full historical exhumation be undertaken in accordance with a *Heritage Act 1977* section 140 excavation permit, or an approved HMP (either existing or new). It is also recommended that an exhumation management procedure be prepared to provide guidance for managing the discovery of human skeletal remains during the course of works.

An Archaeological Research Design Methodology Report would also need to be drafted prior to excavation, including a proposed methodology for the remains to be transported, analysed (with approval from relatives) and relocated in consultation with family members. An Excavation Report would also be required to be sent to Heritage NSW and the Mid-Western Regional Council. All exhumation procedures of the burial sites are to be carried out under a *Heritage Act 1977* section 140 excavation permit, whereby exhumation works would commence prior to approval of the Project. Or in accordance with an approved HMP, either developed for the Project or under the existing MCC HMP, which would be reviewed and, where necessary, updated to include the Project area and identified heritage items. Exhumation works are also to be undertaken in accordance with other relevant legislation and guidelines at the current time of exhumation.

If any additional non-Aboriginal human remains are unexpectedly identified within the Subject Area, the finds should be managed in accordance with Section 6.7 of the approved MCC HMP.

8.3 Summary

Table 10 below details the summary of heritage items within the Subject Area.

Table 10: Summary of significance heritage items, impact assessments and recommendations for mitigation and management.

Heritage Item	Historic Potential	Significance	Listing	Impact on Heritage Items	Mitigative measures/circumstances
Site No. 3 – Roberts Family Burial Site	Potential to yield information about the local area through archaeological relics. There is a strong social/spiritual association between the distant deceased relative and the Roberts family.	Local – High	Nil	Direct	Full excavation and potential exhumation prior to surface disturbance in the vicinity of the burial site. Either via a Heritage Act 1977 section 140 excavation permit or in accordance with the MCO HMP following approval of the Project. Exhumation in accordance with a section 140 excavation permit requires an Archaeological Research Design Methodology Report to be drafted prior to excavation, including, if discovered, a proposed methodology for remains to be transported, analysed (with approval from relatives) and relocated in consultation with family members. An Excavation Report would also be required to be sent to Heritage NSW and the Mid-Western Regional Council.

Heritage Item	Historic Potential	Significance	Listing	Impact on Heritage Items	Mitigative measures/circumstances
Site No. 4 – M Robison Homestead (House and Burial Site)	Potential to yield information about the local area through archaeological remains of the burial site.	Local – Moderate	Nil	Direct	No measures are required for the homestead remains. Full excavation and potential exhumation prior to surface disturbance in the vicinity of the burial site. Either via a <i>Heritage Act 1977</i> section 140 excavation permit or in accordance with the MCO HMP following approval of the Project. Exhumation in accordance with a section 140 excavation permit requires an Archaeological Research Design Methodology Report to be drafted prior to excavation, including, if discovered, a proposed methodology for remains to be transported, analysed (with approval from relatives) and relocated in consultation with family members. An Excavation Report would also be required to be sent to Heritage NSW and the Mid-Western Regional Council.

Heritage Item	Historic Potential	Significance	Listing	Impact on Heritage Items	Mitigative measures/circumstances
Potential Burial Site	Potential to yield information about the local area through archaeological relics. There is potential for a strong social/spiritual association between the distant deceased relative and the Mayberry family.	Local – Moderate to High	Nil	Direct	Full excavation and potential exhumation prior to surface disturbance in the vicinity of the burial site. Either via a <i>Heritage Act 1977</i> section 140 excavation permit or in accordance with the MCO HMP following approval of the Project. Exhumation in accordance with a section 140 excavation permit requires an Archaeological Research Design Methodology Report to be drafted prior to excavation, including, if discovered, a proposed methodology for remains to be transported, analysed (with approval from relatives) and relocated in consultation with family members. An Excavation Report would also be required to be sent to Heritage NSW and the Mid-Western Regional Council.

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Appendix A: Site Inspection Photographs



Plate 3 Remnant brick, concrete/mortar and, timber rails, relating to Site No.4 (Image: Veritas 2005-2006).



Plate 4 General context photograph of grass cover across large portions of the surveyed areas, looking north-west.



Plate 5 Uneven ground with thick grass cover (100%) in the vicinity of a small creek line.



Plate 6 Context in the south-eastern portion of the Subject area.



Plate 7 Abandoned farm shed in the south-eastern portion of the Subject area.



Plate 8 Corrugated iron and timber hay shed, south-eastern portion of the Subject area.



Plate 9 Abandon residence showing brick coursework stumps and verandah, in the south-eastern section of the Subject area.



Plate 10 Abandoned house within the south- eastern portion of the Subject area.



Plate 11 Context location of the potential grave site, looking east (source: Niche 2017).



Plate 12 Potential grave site marked by a mound of stones, looking north (source: Niche 2017).

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