

**Appendix H** — Aboriginal Cultural Heritage Assessment Report





## Berrima Rail Project

## Aboriginal Cultural Heritage Assessment Report

Prepared for Hume Coal Pty Limited | 2 March 2017





## Berrima Rail Project

Aboriginal Cultural Heritage Assessment Report

Prepared for Hume Coal Pty Limited | 2 March 2017

Ground Floor, Suite 01, 20 Chandos Street St Leonards, NSW, 2065

> T +61 2 9493 9500 F +61 2 9493 9599

E info@emmconsulting.com.au

## Berrima Rail Project

Final

Report J12055RP1 | Prepared for Hume Coal Pty Limited | 2 March 2017

Prepared by	Ryan Desic	Approved by	Pamela Kottaras
Position	Senior Archaeologist	Position	Associate Archaeologist
Signature	hy Z	Signature	Mollara
Date	2 March 2017	Date	2 March 2017

This report has been prepared in accordance with the brief provided by the client and has relied upon the information collected at the time and under the conditions specified in the report. All findings, conclusions or recommendations contained in the report are based on the aforementioned circumstances. The report is for the use of the client and no responsibility will be taken for its use by other parties. The client may, at its discretion, use the report to inform regulators and the public.

© Reproduction of this report for educational or other non-commercial purposes is authorised without prior written permission from EMM provided the source is fully acknowledged. Reproduction of this report for resale or other commercial purposes is prohibited without EMM's prior written permission.

#### **Document Control**

Version	Date	Prepared by	Reviewed by
V1	2 March 2017	Ryan Desic	Pamela Kottaras



T +61 (0)2 9493 9500 | F +61 (0)2 9493 9599

Ground Floor | Suite 01 | 20 Chandos Street | St Leonards | New South Wales | 2065 | Australia

www.emmconsulting.com.au

## Acknowledgement

We would like to acknowledge and pay respect to the traditional owners of the land on which the project is proposed. We would like to thank all members of the Aboriginal community who generously gave their time and knowledge in regards to the Aboriginal cultural heritage values associated with the project.

The registered Aboriginal parties (RAPs) consulted for the project wished to share statements of significance for the project area and the wider Country in which it is situated. Yamanda Aboriginal Association stated the following:

"The Gundungurra Aboriginal people are the traditional custodians of the land on which the proposed mine is sited. The significant number and value of Aboriginal sites and Artefacts found demonstrate clearly the longstanding occupation and connection of the Gundungurra people to this Country. Aboriginal people respected and cared for these sites, managing land and water resources sustainably for thousands of years and conducting their lives and ceremony, in harmony with the environment".

- Aunty Val Mulcahy, November 2016

Buru Ngunawal Aboriginal Corporation (BNAC) provided a detailed letter describing aspects of intangible Aboriginal cultural heritage (letter attached in Appendix A). The following excerpts highlight the significance that Aboriginal sites and intangible values have to the Aboriginal community:

"BNAC wish to state that we consider all Aboriginal sites to be of significance to us as the Traditional Carers for this area. BNAC also consider all sites to be of value to us socially, culturally and spiritually...

Aboriginal intangible cultural heritage...includes Aboriginal cultural knowledge and practices (such as language and knowledge of food plants), cultural landscapes or broad areas with important cultural values (for example, story lines, travel routes, and areas connecting sites)...The intangible cultural heritage is transmitted from generation to generation, and is constantly recreated by communities and groups, in response to the environment, the interaction with nature, and our history. It provides people with a sense of identity and continuity, and promotes respect for cultural diversity and human creativity..."

- Wally Bell, October 2016

## **Executive Summary**

Hume Coal Pty Limited (Hume Coal) is seeking approval for the construction and operation of a new rail spur and loop in the Southern Highlands region of New South Wales (NSW) (the Berrima Rail Project). Hume Coal is also seeking approval in a separate State significant development application to develop and operate the Hume Coal Project; an underground coal mine and associated mine infrastructure in the NSW Southern Coalfields. Coal produced by the Hume Coal Project will be transported to port for export or to domestic markets by rail via a new rail spur and loop, constructed as part of the Berrima Rail Project.

Approval for the Berrima Rail Project (the project) is being sought under Part 4, Division 4.1 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). An environmental impact statement (EIS) is a requirement of the approval processes. This Aboriginal cultural heritage assessment (ACHA) forms part of the EIS. It documents the methodology and results of the assessment, the measures taken to avoid and minimise impacts and the additional mitigation and management measures proposed.

This ACHA has been prepared in accordance with the Secretary's Environmental Assessment Requirements for the project and leading practice guidelines outlined in Section 1.5. In summary, the ACHA has involved:

- background research of the project area's environmental, archaeological and ethno-historical context;
- Aboriginal consultation in accordance with the Aboriginal Consultation Requirements for Proponents 2010 (DECCW 2010b);
- an archaeological survey and test excavation program guided by the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW 2010a); and
- an assessment of archaeological (scientific) and socio-cultural and historic values (significance to the Aboriginal community), impact assessment and management recommendations for the identified Aboriginal cultural heritage values using the *Guide to investigating*, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011).

Assessments for the Berrima Rail Project and the Hume Coal Project ACHA were undertaken as one cohesive process. This was the most appropriate method for identifying and assessing Aboriginal cultural heritage values relevant to both projects, primarily due to an overlap of project boundaries. The combined results have been used to characterise Aboriginal cultural heritage values across a broader landscape rather than for each project alone.

Eight Aboriginal parties registered their interest in the project and are referred to as registered Aboriginal parties (RAPs). RAPs were offered to provide cultural information about the project area, provided with draft assessment and fieldwork methods for review, and kept updated about the project during consultation meetings. EMM conducted research with the Aboriginal community to determine whether any socio-cultural heritage values relate specifically to the project area regardless of archaeological evidence. To date, no information has been received that identifies specific heritage values unrelated to the Aboriginal sites and objects in the project area. No historical connection has been identified specifically about the project area.

J12055RP1 E.1

RAPs were issued with the draft ACHA for review and comment on 30 September 2016. A consultation meeting to discuss the draft ACHA and management recommendations was held during this period on 25 October 2016. Written responses were received by NIAC, Cubbitch Barta, BNAC, KNAC and Yamanda and verbal responses were recorded in meeting minutes. All RAP comments are addressed in this report.

During archaeological survey, the survey team recorded 11 new sites in the rail project area, comprising eight areas of PAD, one grinding groove site, one retouched stone flake, and one potential scarred tree.

A test excavation program followed the survey program over a three week period from 19 October to 6 November 2015. The test excavation program involved the digging of 160 50 cm x 50 cm test pits across 16 linear transects, 10 of which were in the Hume Coal Project area and 6 in the rail project area. A total of 281 artefacts were recovered from the test excavation program, including 75 artefacts recovered from test-pit-transects in the rail project area. A variety of stone artefact types were recovered, including complete flakes (19), cores (5) and fragments of broken flakes (48). Additionally, three implements were found comprising two Bondi points (test-pit-transects 12 and 7) and one scraper (test-pit-transect 12).

Overall, no stratigraphically intact subsurface deposits were identified nor were charcoal deposits present across both areas that could be associated with hearths, which is probably because of the level of ploughing the area has undergone. Therefore the distribution of artefacts throughout the soil profiles could not be attributed to specific occupation events or dates.

Eight sites were assessed to be of low scientific significance, one site was assessed with moderate scientific significance and two sites were assessed as having a higher level of moderate significance.

Eight of the 11 Aboriginal new sites identified in the rail project area will be impacted to some degree by the project. Of these, six sites will be partially lost and two totally lost. Three sites will not be impacted. Overall, six sites of low significance will be impacted (four partially and two totally) and two sites of moderate significance will be partially lost. Two sites of low significance (HC\_158 and HC\_140) and the one grinding groove site of moderate significance (HC\_138) will be avoided.

An Aboriginal cultural heritage management plan (ACHMP) will be developed in consultation with RAPs and OEH to manage Aboriginal cultural heritage values in the project area. The management measures are as follows:

- one site will be fenced and avoided (HC\_138);
- two sites will be passively avoided (HC\_140, HC\_158);
- five sites will undergo unmitigated impacts (HC\_137, HC\_146, HC\_147, HC\_148);
- one site will be collected (HC\_145); and
- two sites will be salvaged through excavation (HC\_176 and HC\_177). Two additional areas of moderate archaeological sensitivity (additional salvage areas 1 and 2) will be subject to salvage excavation as they occur on a prominent hill crest surrounding HC\_176 and HC\_177. Importantly, the requirement to salvage additional salvage area 2 is only applicable if the alternative rail route near the Berrima Cement Works is chosen. The preferred option does not require this measure as it veers away from the sensitive hill crest and continues into a swampy area of low archaeological potential.

J12055RP1 E.2

## Table of contents

## Acknowledgement

Executive Summary E.			
Chapter 1	Introduction	1	
1.1	Overview	1	
1.2	Purpose and scope	1	
1.3	Project description	2	
1.4	Project area	7	
1.5	Assessment guidelines and requirements	7	
1.6	Authorship and acknowledgments	8	
Chapter 2	Aboriginal consultation	9	
2.1	Overview	9	
2.2	Stage 1 — notification and registration of registered Aboriginal parties	9	
	2.2.1 Agency contact	9	
	2.2.2 Newspaper advertisements	9	
	2.2.3 Aboriginal group invitation to register	10	
	2.2.4 Native title considerations	10	
	2.2.5 Registered Aboriginal parties	10	
2.3	Stages 2 and 3 – presentation of information and gathering of cultural information	11	
	2.3.1 Presentation of project and assessment information	11	
	2.3.2 Gathering of cultural information	12	
2.4	Stage 4 – issue of draft ACHA	12	
Chapter 3	Existing environment	17	
3.1	Environmental context	17	
	3.1.1 Overview	17	
	3.1.2 Landscape overview	17	
	3.1.3 Drainage	17	
	3.1.4 Geology	19	
	3.1.5 Soil landscapes	19	
	3.1.6 Land use and disturbance	19	
	3.1.7 Environmental implications for the distribution of Aboriginal sites	23	
3.2	Aboriginal heritage context	24	
	3.2.1 Ethno-history	24	
	3.2.2 Previously recorded sites	24	
	3.2.3 Previous investigations	25	
	3.2.4 Predictive model of Aboriginal site location	27	

# Table of contents (Cont'd)

Chapter 4	Archaeological survey and test excavation	29
4.1	Overview	29
4.2	Survey method	29
	4.2.1 Strategy	29
	4.2.2 Recording methods	29
4.3	Survey results	30
	4.3.1 Effective coverage results	30
	4.3.2 Sites identified during survey	33
4.4	Test excavation results	37
	4.4.1 Method	37
	4.4.2 Soils	37
	4.4.3 Stone artefacts recovered	42
4.5	Archaeological sensitivity model	42
4.6	Implications from archaeological investigation	45
Chapter 5	Significance assessment	47
5.1	Defining heritage significance	47
5.2	Sites and significance	47
Chapter 6	Impact assessment	51
6.1	Overview	51
6.2	Impacts to sites	51
6.3	Impacts on archaeologically sensitive areas	52
	6.3.1 Hume Coal rail loop	52
	6.3.2 Railway line	52
	6.3.3 Soil stockpiles	52
6.4	Cumulative impacts	54
	6.4.1 Overview	54
	6.4.2 Existing impacts	54
	6.4.3 Cumulative impacts with the Hume Coal Project	55
Chapter 7	Management and mitigation	57
7.1	Alternatives adopted to maximise avoidance	57
7.2	Intergenerational equity	57
7.3	Aboriginal heritage management framework	57
7.4	Management measures	58
	7.4.1 Aboriginal heritage management plan	58
	7.4.2 Avoidance and active management	58
	7.4.3 Avoidance and passive management	58

J12055RP1 ii

## Table of contents (Cont'd)

	7.4.4 Collection	59
	7.4.5 Salvage excavation	59
	7.4.6 Unmitigated impacts	60
7.5	Site management summary	60
7.6	Special procedures	63
	7.6.1 Aboriginal ancestral remains	63
	7.6.2 Aboriginal keeping place	63
	7.6.3 Discovery of new Aboriginal sites in the project area	63
Chapter 8	Conclusion	65
Reference	es	67
Abbreviations		

## **Appendices**

Α	Aboriginal	consultation	documentation	n
$\overline{}$		CONSULTATION	uocumentatio	11

- B AHIMS search results
- C Site significance details
- D Key correspondence with OEH

## **Tables**

1.1	Aboriginai culturai neritage assessment – relevant SEARS	/
1.2	Aboriginal cultural heritage – environmental assessment recommendations	8
2.1	List of RAPs	11
2.2	Cubbitch Barta comments on the Berrima Rail Project ACHA, and responses	13
4.1	Landform survey coverage summary	30
4.2	Sites recorded during survey in the project area	35
4.3	Test excavation results for the project area	42
5.1	Summary of significances	49
7.1	Site management summary	62

J12055RP1 iii

## Figures

1.1	Locality plan	4
1.2	Local context	5
1.3	Conceptual project components	$\epsilon$
3.1	Drainage and topography	18
3.2	Geology of the project area	20
3.3	Soil landscapes of the project area and surrounds	21
3.4	Historic aerial imagery 1949 – project area	22
3.5	AHIMS results and locations of previous surveys	26
4.1	Aboriginal survey coverage and site results	36
4.2	Test excavation overview	38
4.3	Test excavation results – Mereworth (Transects 5, 6, 7, 8 and 17)	39
4.4	Test excavation results –Stonington (transects 10 and 11)	40
4.5	Test excavation results – Boral-owned Land (transects 9 and 12)	41
4.6	Areas of archaeological sensitivity – project area	44
6.1	Potential impacts on Aboriginal sites	53
7.1	Aboriginal site management – project preferred and alternative options	61

J12055RP1 iv

### 1 Introduction

#### 1.1 Overview

Hume Coal Pty Limited (Hume Coal) is seeking approval for the construction and operation of a new rail spur and loop in the Southern Highlands region of New South Wales (NSW) (the Berrima Rail Project). Hume Coal is also seeking approval in a separate State significant development application to develop and operate the Hume Coal Project; an underground coal mine and associated mine infrastructure in the NSW Southern Coalfields. Coal produced by the Hume Coal Project will be transported to port for export or to domestic markets by rail via a new rail spur and loop, constructed as part of the Berrima Rail Project.

### 1.2 Purpose and scope

Approval for the Berrima Rail Project (the project) is being sought under Part 4, Division 4.1 of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act). An environmental impact statement (EIS) is a requirement of the approval processes. This Aboriginal cultural heritage assessment (ACHA) forms part of the EIS. It documents the methodology and results of the assessment, the measures taken to avoid and minimise impacts and the additional mitigation and management measures proposed.

The location of the project is shown in Figure 1.1, and the local context around the project area is illustrated in Figure 1.2.

The objectives of the ACHA are to:

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

Development consent for the Berrima Rail Project is one of three approvals required under the EP&A Act for the Hume Coal mine to operate. Hume Coal is therefore seeking:

- development consent for the mine and associated facilities (ie the Hume Coal Project) under Part 4,
   Division 4.1 of the EP&A Act:
- development consent for the construction and use of a new rail spur and loop (the rail project which is the subject of this report) under Part 4, Division 4.1 of the EP&A Act; and
- an activity approval for proposed electricity supply works under Part 5 of the EP&A Act.

All three projects are inextricably linked, in that one will not be developed without the other two. Approval for the three projects is therefore being sought simultaneously, and construction will occur concurrently.

The Aboriginal cultural heritage assessments for the Berrima Rail Project and the Hume Coal Project were undertaken as one cohesive process. This was the most appropriate method for identifying and assessing Aboriginal cultural heritage values relevant to both projects, primarily due to an overlap of project boundaries. The combined results have been used to characterise Aboriginal cultural heritage values across a broader landscape rather than for each project alone.

The Aboriginal consultation process, predictive model, archaeological survey, test excavation and analysis for both projects is presented in detail in the Hume Coal Project ACHA (Appendix S of the Hume Coal Project EIS (EMM 2017a)), and is the overarching document on which this ACHA is based. Notwithstanding, the information relevant to the Berrima Rail Project is addressed more specifically in this ACHA. The cumulative impacts from both projects are also addressed in this report.

### 1.3 Project description

The Berrima Rail Project will enable the transportation of coal produced by the Hume Coal Project to various customers. The new rail spur and loop will be connected to the western end of the existing Berrima Branch Line; a privately owned line branching off the Main Southern Rail Line at the Berrima Junction approximately 2.5 km north of Moss Vale. The Berrima Branch Line is owned and used by Boral Cement Ltd (Boral) for the transportation of cement, limestone, coal and clinker to and from the Berrima Cement Works. It is also used by Inghams Enterprises Pty Limited (Inghams) for the transportation of grain to its feed mill east of the cement works, and by Omya (Australia) Pty Ltd (Omya) for the transportation of limestone to their Moss Vale plant at the Berrima Junction.

In addition to the construction of the new rail spur and loop, the project also involves upgrades to the Berrima Branch Line and the use of the rail infrastructure by Hume Coal and Boral. The rail project and the Hume Coal Project are the subject of two separate development applications as the rail project involves rail infrastructure used by users other than Hume Coal, as noted above.

Hume Coal will transport product coal by rail, primarily to Port Kembla for export, and possibly to the domestic market depending on demand. Hume Coal will transport up to 3.5 Million tonnes per annum (Mtpa) of product coal which will require up to eight train paths per day (four in each direction), with a typical day involving four to six paths (two to three in each direction).

In summary the project involves:

- upgrades to Berrima Junction (at the eastern end of the Berrima Branch Line) to improve the
  operational functionality of the junction, including extending the number 1 siding, installation of
  new turnouts and associated signalling on the branch line. This does not involve any work at or
  beyond the interface with ARTC-controlled track;
- construction and operation of a railway bridge over Berrima Road;
- construction and operation of a new rail connection into the Berrima Cement Works from the railway bridge;
- decommissioning of the existing rail connection into the Berrima Cement Works including the Berrima Road level rail crossing;

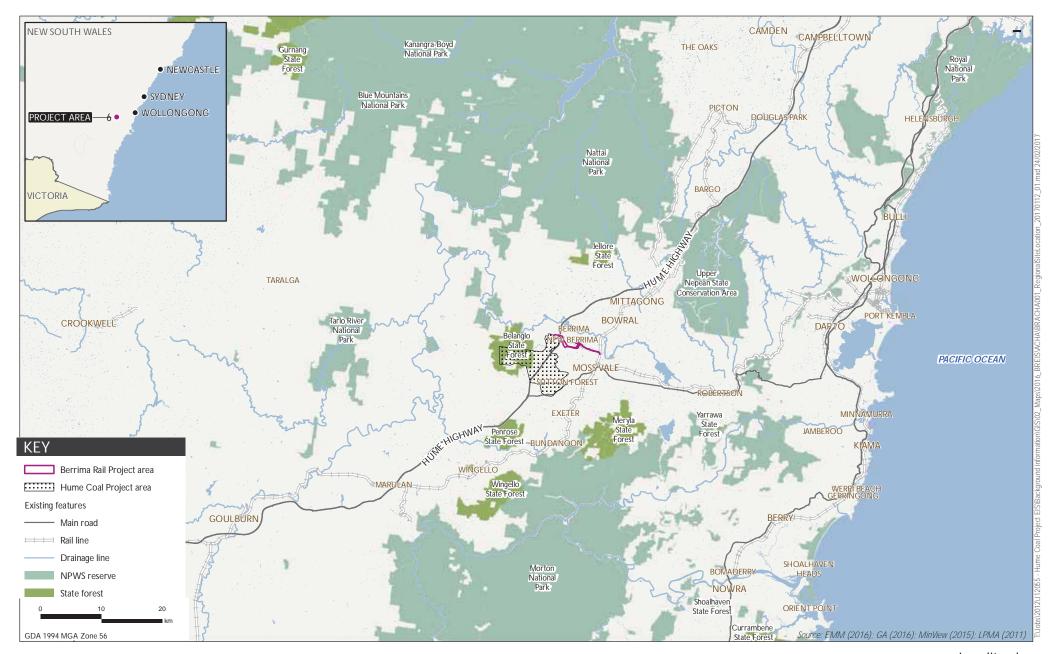
- construction and operation of a new rail spur line from the Berrima Branch Line connection to the Hume Coal Project coal loading facility;
- construction and operation of a grade separated crossing (railway bridge) over the Old Hume Highway;
- construction and operation of maintenance sidings, a passing loop and basic provisioning facility on the western side of the Old Hume Highway, including an associated access road, car parking and buildings;
- construction and operation of the Hume Coal rail loop within the Hume Coal Project Area, adjacent to Medway Road; and
- construction and operation of associated signalling, services (including water, sewerage drainage), access tracks, power and other ancilliary infrastructure.

The conceptual project layout is illustrated in Figure 1.3. As shown, approval is sought for two alignments of the new rail line where it will cross Berrima Road. The preferred option is the blue rail alignment shown in Figure 1.3, which includes construction of a railway bridge over Berrima Road as described in the points above. This preferred project design has been developed in consultation with Boral as the owner of the Berrima Branch Line.

The alternative option (orange alignment in Figure 1.3) accounts for a proposal by Wingecarribee Shire Council (WSC) to realign approximately 700 m of Berrima Road between Taylor Avenue and Stony Creek to replace the T-intersection at Berrima Road and Taylor Avenue with a roundabout, and replace the existing rail level crossing into the Berrima Cement Works with a rail overbridge. If WSC relocates Berrima Road to the alignment shown in Figure 1.3, then the following project components would vary:

- the turnout for the new spur line to service the Hume Coal Project would be installed on the
  existing Berrima Branch Line approximately 1000 m east of the cement works. A short section of
  the existing Berrima Branch Line would be shifted north, within the rail corridor on Boral-owned
  land, to accommodate the spur line;
- the construction of a railway bridge over Berrima Road would be replaced by a railway underpass beneath the realigned Berrima Road, constructed through the elevated embankment for the road;
- the construction of a new rail connection into the Berrima Cement Works from the railway bridge would no longer be required, and the cement works access would remain unchanged; and
- the existing rail connection into the Berrima Cement Works and the Berrima Road level rail crossing
  would not be decommissioned, since the road would be realigned to pass over the existing rail
  alignment using a bridge.

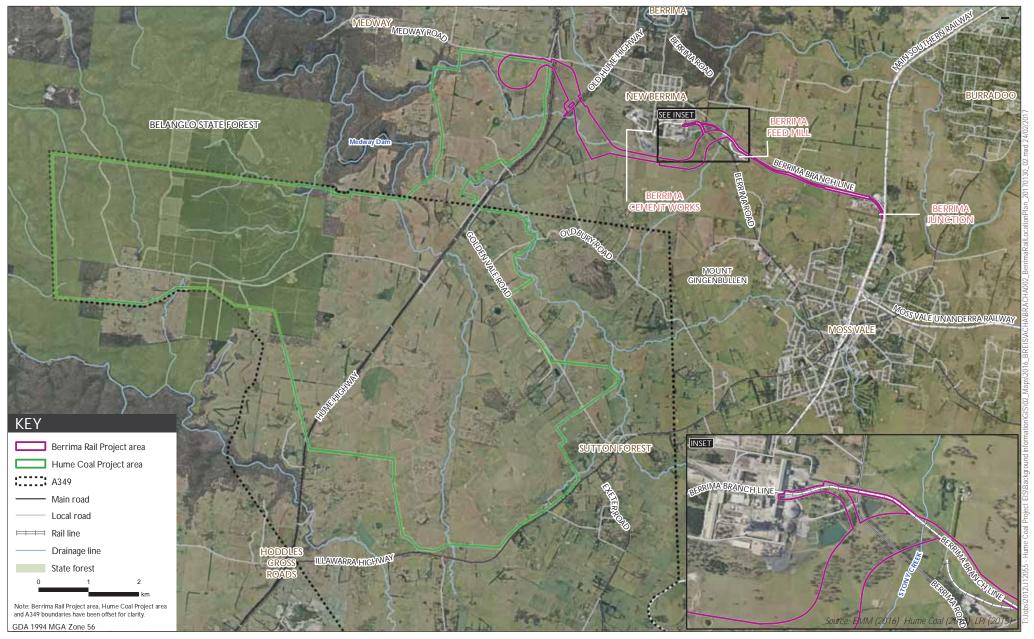
This Aboriginal cultural heritage assessment has considered the impacts of both options shown in Figure 1.3.





## Locality plan

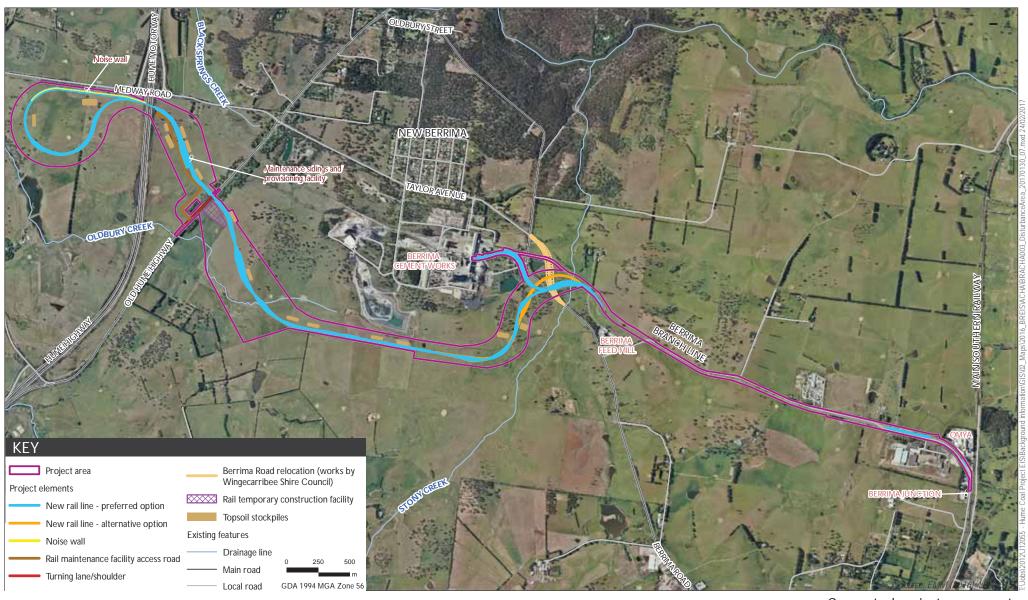
Berrima Rail Project Aboriginal cultural heritage assessment





### Local context

Berrima Rail Project Aboriginal cultural heritage assessment





Berrima Rail Project Aboriginal cultural heritage assessment



### 1.4 Project area

The project area boundaries referenced in this ACHA are shown in Figure 1.2.

The project area is located in the Southern Highlands region of NSW in the Wingecarribee local government area, approximately 100 km south-west of Sydney. It occupies a corridor that is around 8 km long, stretching from the Berrima Junction on the outskirts of Moss Vale, heading west in parallel with Douglas Road past the Berrima Feed Mill, around the southern side of the Berrima Cement Works, across the Old Hume Highway and under the Hume Highway through an existing underpass into the Hume Coal Project area, south of Medway Road.

The project area is in a semi-rural setting. It is surrounded by grazing properties, small-scale farm businesses, scattered rural residences, and large and small industries and is traversed by the Hume Highway. The project area contains predominately cleared agricultural land consisting of improved pasture for grazing, and over a third of the area comprises the existing Berrima Branch Line.

The villages of New Berrima, Berrima and Moss Vale are located in the general area. Medway is also located nearby while Bowral and Mittagong are located between 6 and 10 km north-east of the eastern end of the project area, respectively. There are also scattered homesteads, dwellings and other built structures associated with agricultural production surrounding the project area.

### 1.5 Assessment guidelines and requirements

This Aboriginal cultural heritage assessment (ACHA) has been prepared in accordance with the relevant governmental assessment requirements, guidelines and policies, and in consultation with the relevant government agencies. In particular, the following guidelines and policies were considered in this assessment:

- Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (the Code) (DECCW 2010a);
- Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2011);
   and
- Aboriginal Consultation Requirements for Proponents 2010 (DECCW 2010b).

The ACHA was prepared in accordance with the requirements of the NSW Department of Planning and Environment (DP&E). These were set out in the Secretary's Environmental Assessment Requirements (SEARs) for the project, issued on 20 August 2015. A copy of the SEARs is attached to the EIS as Appendix B, while Table 1.1 lists the individual requirements relevant to this assessment and where they are addressed in this report.

Table 1.1 Aboriginal cultural heritage assessment – relevant SEARs

Aboriginal cultural heritage	Section addressed
SEARs requirements	
<b>Heritage</b> — including an assessment of the likely Aboriginal and historic heritage (cultural and archaeological) impacts of the development, having regard to OEH's requirements (see Attachment 2).	This report addresses Aboriginal cultural heritage. Historical (non-Indigenous) heritage is not addressed in this report – refer to Appendix H of the EIS (EMM 2017b).

To inform preparation of the SEARs, DP&E invited other government agencies to recommend matters to be addressed in the EIS. These matters were taken into account by the Secretary for DP&E when preparing the SEARs. Copies of the government agencies' advice to DP&E were attached to the SEARs.

OEH raised matters relevant to the ACHA. The matters raised are listed in Table 1.2.

Table 1.2 Aboriginal cultural heritage – environmental assessment recommendations

Recommendation	Section addressed
Standard OEH requirements	
1. The EIS must identify and describe the tangible and intangible Aboriginal cultural heritage values that exist across the whole area that will be affected by the project and document these in the EIS. This may include the need for surface survey and test excavation. The identification of cultural heritage values should be guided by <i>Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW</i> (OEH 2011) and consultation with OEH regional officers.	Chapters 3 and 4. Key correspondence with OEH is provided in Appendix A
2. Where Aboriginal cultural heritage values are identified, consultation with Aboriginal people must be undertaken and documented in accordance with the <i>Aboriginal Cultural Heritage consultation requirements for proponents 2010</i> (DECCW 2010) The significance of cultural heritage values for Aboriginal people who have a cultural association with the land must be documented in the EIS.	Chapter 2
3. Impacts on Aboriginal cultural heritage values are to be assessed and documented in the EIS. This EIS must demonstrate attempts to avoid impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to OEH.	Chapters 6 and 7
Project specific requirements	
B. The assessment of cultural heritage values must include a surface survey undertaken by a qualified archaeologist in areas with potential for subsurface Aboriginal deposits. The result of the surface survey is to inform the need for targeted test excavation to better assess the integrity, extent, distribution, nature and overall significance of the archaeological record. The results of surface surveys and test excavations are to be documented in the EIS.	Chapter 4
C. The EIS must outline procedures to be followed if Aboriginal objects are found at any stage of the life of the development to formulate appropriate measures to manage unforeseen impacts.	Chapter 7, Section 7.6
D. The EIS must outline procedures to be followed in the event Aboriginal burials or skeletal material is uncovered during construction to formulate appropriate measures to manage the impacts to this material.	Chapter 7, Section 7.6

EMM also consulted with the OEH Illawarra Region archaeologist during the ACHA process for their advice on the methods used for survey, consultation and test excavation. Relevant consultation documentation with OEH is provided in Appendix D.

### 1.6 Authorship and acknowledgments

This report was prepared by Ryan Desic (EMM Senior Archaeologist – BA Hons Prehistoric and Historical Archaeology) and reviewed by Pamela Kottaras (EMM Heritage Services Manager – BA Hons Prehistoric and Historical Archaeology).

EMM would like to thank all Aboriginal community members, including registered Aboriginal parties (RAPs) for their involvement in consultation meetings, ongoing correspondence and fieldwork.

## 2 Aboriginal consultation

#### 2.1 Overview

Consultation with the Aboriginal community was undertaken in accordance with the procedures outlined in *Aboriginal Consultation Requirements for Proponents 2010* (DECCW 2010b).

In accordance with these guidelines, each private Aboriginal organisation or individual who requested to be registered for consultation, within the timeframes specified in the guideline, is referred to as a registered Aboriginal party (RAP).

Aboriginal consultation for this project and the Hume Coal Project was conducted as one process. This is primarily because the rail project was originally presented to RAPs as part of the Hume Coal Project. Full consultation records and associated documentation is provided in Appendix A of this report.

Aboriginal consultation followed two separate rounds of notification and Aboriginal party registration in 2012 and 2013. In the first round only three Aboriginal groups registered and therefore a second round of notification and registration was considered appropriate to encourage all interested parties to register.

## 2.2 Stage 1 — notification and registration of registered Aboriginal parties

### 2.2.1 Agency contact

For the first stage of notification, EMM issued a letter to relevant government agencies on 10 August 2012 requesting advice on which Aboriginal parties to invite for consultation. An additional request to identify Aboriginal parties for consultation was issued on 26 July 2013. The government agencies contacted are listed below:

- OEH Planning, Aboriginal Heritage;
- Illawarra Local Aboriginal Land Council (Illawarra LALC);
- Wingecarribee Shire Council;
- Hawkesbury-Nepean Catchment Management Authority;
- National Native Title Tribunal;
- The Office of the Registrar of Aboriginal Owners; and
- NTSCorp.

#### 2.2.2 Newspaper advertisements

An advertisement was placed in a local newspaper on two occasions detailing the project name, proponent, project location and details and requested Aboriginal knowledge holders to register their interest in the project. For the first stage of notification an advertisement was placed in the Highlands Post on 6 September 2012 and on the second occasion an advertisement was placed in the Southern Highlands News on 12 August 2013. Copies of each advertisement are included in the consultation documentation provided in Appendix A of this report.

### 2.2.3 Aboriginal group invitation to register

Letters were sent via registered post on 4 September 2012 to all parties listed by the government agencies in the first round of notification.

The second round of notification involved:

- notifying existing RAPs of Hume Coal's intention to continue consultation on 26 July 2013;
- sending all previously identified (but unregistered) parties an invitation to register for the project on 26 July 2013; and
- sending all newly identified parties an invitation to register on 23 August 2013 (based on the updated government agency lists).

EMM did not receive postal delivery confirmation for the invitation from a number of Aboriginal groups. In these instances, EMM attempted to contact the nominated individual or group by calling the telephone numbers provided by the government agencies. The outcomes of these attempts are detailed in a communications record in Appendix A.

#### 2.2.4 Native title considerations

The Native Title Tribunal search results in July 2013 listed that a native title claim was registered (#NC1997/007) over the project area and its surrounds. The application name was the "Gundungurra Tribal Council Aboriginal Corporation #6" which had been registered from 29 April 1997. No determination by the Federal Court, High Court of Australia or other recognised bodies was established for the claim.

Although no native title determination applied to the project area, it was a priority of the ACHA to consult with the claimants, the Gundungurra Tribal Council Aboriginal Corporation. Nevertheless, despite numerous attempts to contact the Gundungurra Tribal Aboriginal Corporation, no registration of interest was received (refer to the communications record in Appendix A).

The registered native title claim "Gundungurra Tribal Aboriginal Corporation #6" was repealed and later replaced by an Indigenous Land Use Agreement (ILUA) (#NI2014/001) on 20 June 2014. This includes the project area. One of the parties to the agreement is the Gundungurra Aboriginal Heritage Association (GAHA) who registered their interest in the project on 7 September 2012. In accordance with the consultation guidelines (DECCW 2010b, Section 4.1.1), the existence of an ILUA over the project area does not exclude other RAPs not listed on the ILUA from being consulted for the project.

#### 2.2.5 Registered Aboriginal parties

Eight Aboriginal parties registered their interest in the project and are listed below in Table 2.1.

Table 2.1 List of RAPs

Organisation	Date of registration
Gundungurra Aboriginal Heritage Association Inc.(GAHA)	07-Sep-12
Cubbitch Barta Native Title Claimants Aboriginal Corporation (Cubbitch Barta)	18-Sep-12
Illawarra Local Aboriginal Land Council (ILALC)	11-Dec-12
Peter Falk Consultancy	01-Aug-13
Northern Illawarra Aboriginal Collective Inc. (NIAC)	08-Aug-13
Koomurri Ngunawal Aboriginal Corporation (KNAC)	20-Aug-13
Buru Ngunawal Aboriginal Corporation (BNAC)	26-Aug-13
Yamanda Aboriginal Association (Yamanda)	11-Sep-13

Three Aboriginal groups that contacted EMM after the two rounds of registration also expressed their interest in being kept updated about the Hume Coal Project. They are:

- Joanne Goulding (contacted EMM on 16 May 2014);
- Moyengully Natural Resource Management Group (contacted EMM on 23 May 2014); and
- Koori Kulcha Experience (Marie Barbaric also a member of the Illawarra LALC) (first contacted Hume Coal on 3 November 2014 with a request to visit parts of the project area).

The three registrants listed above were incorporated more closely into the consultation process in September 2015 once the project area had been refined and before the test excavation program commenced. The draft test excavation method and the slides and minutes from the first consultation meeting (including the proposed ongoing assessment method) were provided for their review and comment. Furthermore, these groups were issued with the draft ACHA report for review and invited to attend the second consultation meeting.

# 2.3 Stages 2 and 3 – presentation of information and gathering of cultural information

### 2.3.1 Presentation of project and assessment information

RAPs were initially issued with a letter on 17 April 2014 which presented an overview of the Hume Coal Project, outlined the proposed assessment methods and requested cultural information associated with the project area. No information was provided by the RAPs about the cultural significance of the project area specifically, but the comments discussed below (Section 2.3.2) were received. RAPs were given 28 days to respond to the proposed assessment method, but were told that cultural information could be provided throughout the duration of the assessment.

RAPs were further kept updated about the project and assessment methods through letters issued before each stage of the field survey and prior to the commencement of the test excavation program.

Hume Coal and EMM held a consultation meeting on 26 August 2015 at the Blue Circle Sport and Recreation Centre in New Berrima. EMM issued an open invitation to RAPs, and representatives from KNAC, Cubbitch Barta, BNAC and NIAC attended the meeting. Updates on the project were presented along with a summary of the progress on the ACHA, the next steps in the ACHA process and a reminder for RAPs to provide any relevant cultural information about the area. The proposed test excavation method was also presented to RAPs for their response and feedback. Additionally, a letter detailing the draft test excavation method was issued to RAPs on 27 August 2015, followed by the meeting minutes on 3 September 2015, for their review. As per the guideline, RAPs were given the statutory 28 day review period to provide commentary.

A number of minor changes were made to the test excavation method prior to its commencement. These changes were based on the RAPs' review and also in consultation with OEH which are provided in Appendix A.3.

#### 2.3.2 Gathering of cultural information

EMM consulted with RAPs to determine whether any socio-cultural heritage values related specifically to the project area regardless of archaeological evidence. Subsequently, RAPs were offered the opportunity to provide cultural information about the project area and its surrounds starting from 17 April 2014 until the end of draft ACHA review period in November 2016.

An additional meeting was held with Yamanda on 18 July 2016 upon their request forthe project and ACHA to be explained in more detail. The elders from Yamanda (Auntie Val Mulcahy and Auntie Annie Warren) were subsequently invited to visit the project area but were unable to attend. In a second attempt to organise a new site visit Yamanda declined due to other commitments. EMM offered to reorganise the meeting; however, Yamanda declined because of other commitments. To date, no information has been received that identifies specific socio-cultural or historic heritage values separate to the Aboriginal sites and objects found in the project area. Further, no historical connection has been identified specifically to the project area.

Notwithstanding, NIAC suggested that an Aboriginal burial site exists near Oldbury Farm, approximately 2.5 km east of the nearest area of project-related direct ground disturbance. If identified, the site would have high cultural and historical importance. However, the suggested location is outside the project area and on private property, which was not accessible to verify during the course of the ACHA.

Other RAPs, including Yamanda and those present at the meeting on 25 October 2016, expressed that the Southern Highlands in general may contain mass burial sites, but none were known to be in the project area.

### 2.4 Stage 4 – issue of draft ACHA

A draft version of the ACHA, including all background information, results, draft significance assessment and draft management recommendations, was issued to all RAPs on 30 September 2016. A statutory 28 day review period was initially provided, but then extended to a 32 day review period to provide RAPs with additional time to consider and comment on the outcomes of a consultation meeting held by Hume Coal and EMM on 25 October 2016. This meeting was at the Moss Vale Services Club, and provided an opportunity for RAPs to discuss the draft assessment and draft management recommendations. The meeting served to present all RAPs withthe cumulative impacts and management recommendations for both the rail project and the Hume Coal Project.

Responses were obtained verbally from RAPs throughout the meeting, indicating general agreement with the draft ACHA and draft management recommendations. However, RAPs emphasised that the intangible significance of the environment to the Aboriginal people should receive greater acknowledgement. Consequently, it was agreed that an opening statement of cultural significance be provided in the ACHA to convey this message. This is provided at the start of this report.

Written responses were received from NIAC, Cubbitch Barta, BNAC, KNAC and Yamanda. No new Aboriginal cultural heritage values were raised by RAPs other than those identified in the draft ACHA and at the meeting on 25 October 2016.

Most of the RAP responses were made generally about both the Hume Coal Project and the Berrima Rail Project. Each RAP comment has been addressed in Table 2.3 of the Hume Coal Project ACHA (EMM 2017a) and is also provided in Appendix A.4. The following RAP comments and EMM's responses that relate specifically to the rail project are addressed in this section. One general comment that is applicable to the rail project is the following:

• RAPs expressed that the Aboriginal objects recovered from the project area should not to be held on-site in Hume Coal offices. Instead, Yamanda requested to be custodians of the recovered objects which will be confirmed during the development of the Aboriginal Heritage Management Plan (ACHMP). This would require a care agreement between Yamanda and OEH to allow the transfer of the objects to Yamanda for safekeeping.

Only Cubbitch Barta provided separate comments for each project. As such, Cubbitch Barta's comments on the Berrima Rail Project ACHA are addressed specifically in Table 2.2.

Table 2.2 Cubbitch Barta comments on the Berrima Rail Project ACHA, and responses

"(1)[Test excavation] Transects 10 and 11 were only tested
on either side of the corridor. There was no testing on the
corridor itself or on the other side. I believe that this section
needs more testing to properly ascertain the potential of
the area.

Comment

#### Response

The placement of Transects 10 and 11 was based on the design of the rail alignment at the time. The final design only varies slightly from the tested area. The current alignment represents a continuation of the tested landforms nearby. Therefore, the results are indicative of the archaeological potential in the current rail alignment which is predicted to be very low (average <5 artefacts per square metre). Only seven artefacts were retrieved from 21 test pits, 15 of which did not contain artefacts. As such, further testing or salvage is not considered warranted in this area, as salvage resources would be better allocated towards areas with moderate subsurface artefact densities (average 11–20 artefacts per square metre) such as those predicted at sites HC\_176 and HC\_177.

#### Table 2.2 Cubbitch Barta comments on the Berrima Rail Project ACHA, and responses

#### Comment

(2) I do not believe that the value of any site is reduced because of widespread historic ploughing. Even your own documentation previously disputes that comment. To a scientist it may have reduced the scientific and research value, but does not reduce the cultural value or their place in the landscape.

Response

The Hume Coal Project ACHA report argues that widespread historic ploughing disturbs but does not necessarily remove all spatial context of open stone artefact sites since their deposition (refer to Section 3.9 of the Hume Coal Project ACHA (EMM 2017a)). Historic ploughing would inevitably reduce the scientific value of sites as it would move artefacts from their original depositional context. This would limit the potential for stratified sites and also affect the spatial pattering of sites.

Notwithstanding the above, all surface stone artefact sites within the project disturbance footprint will be salvaged regardless of whether or not they have been ploughed. Furthermore, the sites identified for salvage excavation have also been subject to historic ploughing, but warrant salvage as they provide a good representative sample of stone artefacts, raw materials and implements used in the local area.

It is acknowledged that the Aboriginal community consider Aboriginal objects as culturally significant items regardless of their scientific significance.

(3) [Test excavation] Transects 7 and 8 you say revealed low artefact densities. I note in Figure 10.5 that there were as many as 10 possibly in some pits, while others had one or nil. However transect 6 had high numbers, less than 50 metres away. If the whole of this PAD, around the area of these transects is to be impacted then it should all be tested and or salvaged.

One test pit in Transect 8 had above average artefact frequencies (pit 031E 003N had eight artefacts) and its adjacent pits had from two to three artefacts. This suggests that this area has slightly more potential than the surrounding tested areas, but comparatively low when compared to the other sites designated for salvaged.

The nearby Transect 6 has moderate artefact densities which is attributed to its proximity to Oldbury Creek whereas Transects 7 and 8 represent lower artefact frequencies associated with areas over 200 m from perennial streams. Transect 6 is designated for salvage as part of the Hume Coal Project mitigation measures.

Subsequently, Transect 6 will be salvaged but Transect 7 and 8 are not considered to warrant further testing or salvage because of the expected low to very low artefact densities in these areas.

Table 2.2 Cubbitch Barta comments on the Berrima Rail Project ACHA, and responses

Comment	Response
(4) All salvaged material should be wet sieved either on a 2.5mm of 3mm sieve. There is too much small material lost on a 5mm sieve. All you will get is large artefacts, and not a true count of numbers.	A 3 mm sieve was used for a selection of test pits during the test excavation program but no discernible trend in artefact size was found when comparing the results to a pit sieved using 5 mm mesh.
	Section 11.2.5 of the Hume Coal Project ACHA previously stated that during salvage excavation, soil would be wet sieved through a 5 mm aperture mesh. Notwithstanding, it has been updated to include the provision for the use of smaller sieves where warranted, which will be confirmed during preparation of the ACHMP.
(5) It is not appropriate for Hume Coal, a Korean owned entity to have Care and Control of any artefacts at any time. I will not support this recommendation in any way. The artefacts should either be reburied or a competent Aboriginal organisation should seek their Care and Control.	During the review period, Yamanda Aboriginal Association requested for salvaged objects to be retained in the local Aboriginal community centre in Mittagong. This would involve applying for a care agreement with OEH to allow Yamanda to be a custodian of the recovered objects. This will be confirmed during the development of the ACHMP.
(6) Any artefacts recovered belong to Aboriginal people, and they should be the decision makers as to their whereabouts in the future.	This statement is acknowledged. Yamanda have expressed their interest in being custodians of the recovered artefacts (refer to response to comment 5 above).