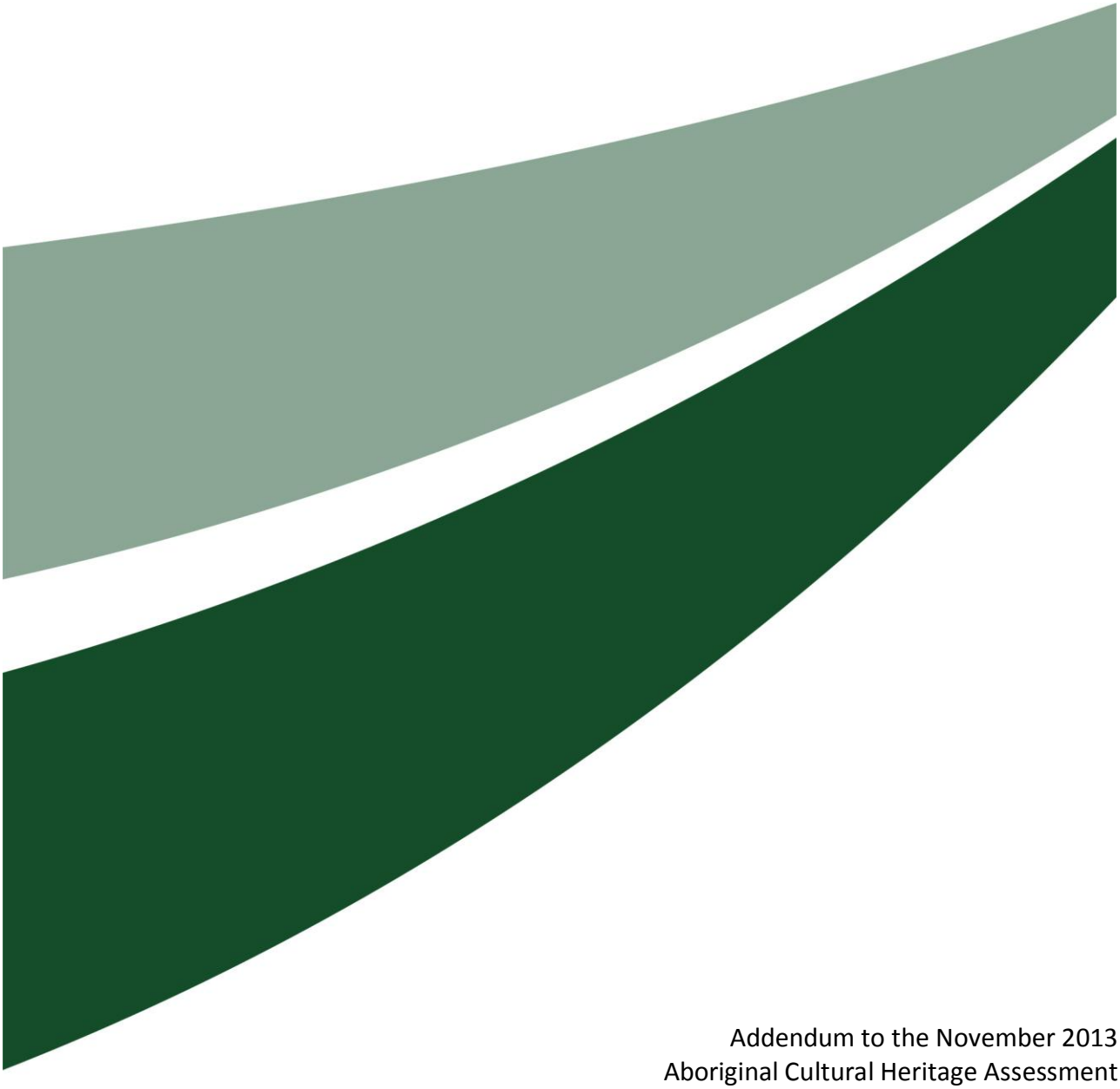
APPENDIX 13A – PART 2

Aboriginal Cultural
Heritage Assessment



Addendum to the November 2013 Aboriginal Cultural Heritage Assessment Report

Addendum Report

Mount Owen Continued Operations Project

Addendum to the November 2013 Aboriginal Cultural Heritage Assessment Report

By: Dr Shaun Canning

Date: 26 August 2014

Client Name: Mount Owen Pty Ltd

ACHM
AUSTRALIAN CULTURAL HERITAGE MANAGEMENT

ADELAIDE
446 SOUTH ROAD
MARLESTON, SA, 5033

BRISBANE
LEVEL 19, 10 EAGLE STREET
BRISBANE, QLD, 4000

MELBOURNE
108 POWLETT STREET
KILMORE, VIC, 3764

PERTH
LEVEL 7, 524 HAY STREET
PERTH, WA, 6000

SYDNEY
LEVEL 36
1 MACQUARIE PLACE
CIRCULAR QUAY, NSW, 2000

1300 724 913
email@achm.com.au
www.achm.com.au

Mount Owen Continued Operations Project

Addendum to the November 2013 Aboriginal Cultural Heritage Assessment Report

By: Dr Shaun Canning

Date: 26 August 2014

www.achm.com.au 1300 724 913 email@achm.com.au

ADELAIDE 446 SOUTH ROAD, MARLESTON, SA, 5033 BRISBANE LEVEL 19, 10 EAGLE STREET, BRISBANE, QLD, 4000 MELBOURNE 108 POWLETT STREET, KILMORE, VIC, 3764
PERTH LEVEL 7, 524 HAY STREET, PERTH, WA, 6000 SYDNEY LEVEL 36, 1 MACQUARIE PLACE, CIRCULAR QUAY, NSW, 2000

Document Control Information

Document information
Client: Mount Owen Pty Ltd Client Contact: Title: Mount Owen Continued Operations Project Subtitle: Addendum to the November 2013 Aboriginal Cultural Heritage Assessment Report Our Ref: XCN002 Date: 26 August 2014

Version	Date	Details

Recipient Name	Organisation	Hardcopy	Electronic	Transmission Method	Purpose	Date

Author, Reviewer and Approver details				
Prepared by:	Dr Shaun Canning	Date: 24/06/2014	Signature:	
Reviewed by:		Date:	Signature:	
Approved by:		Date:	Signature:	

Ownership and Disclaimer

Ownership of the intellectual property rights of ethnographic information provided by Aboriginal people remains the property of those named persons.

Ownership of the primary materials created in the course of the research remains the property of Australian Cultural Heritage Management (Victoria) Pty Ltd.

This document remains the property of Mount Owen Pty Ltd. This document may not be used, copied, sold, published, reproduced or distributed wholly or in part without the prior written consent of Mount Owen Pty Ltd.

This document has been prepared in accordance with the brief provided by Mount Owen Pty Ltd and has relied upon information provided by the client, or collected during the completion of the document and under the conditions specified in the document. All findings, conclusions and recommendations contained in the document are based on the aforementioned circumstances. The document is for the use of Mount Owen Pty Ltd in addressing their brief and no responsibility is taken for the documents use by other parties.

The professional advice and opinions contained in this document are those of the consultants, Australian Cultural Heritage Management (Victoria) Pty Ltd, and do not represent the opinions and policies of any third party.

The professional advice and opinions contained in this document do not constitute legal advice.

Spatial Data

Spatial data captured by Australian Cultural Heritage Management (Victoria) Pty Ltd in this document for any newly recorded sites has been obtained by using hand held or differential GPS units using the GDA94 co-ordinate system.

Abbreviations

Term	Meaning
AHIP	Aboriginal Heritage Impact Permit
AMBS	Australian Museum Business Services
ATSIHP	Aboriginal and Torres Strait Islander Heritage Protection Act 1984
CATSI Act	Corporations (Aboriginal and Torres Strait Islander) Act 2006
CHPP	Coal Handling Preparation Plant
DA	Development Application
DEC	Department of Environment and Conservation (now OEH)
DECC	Department of Environment and Climate Change (now OEH)
DECCW	Department of Environment, Climate Change and Water (now OEH)
DGRs	Director General Requirements, being the specific environmental assessment requirements to be addressed by an EIS for a Project
DP&E	New South Wales Department of Planning and Environment
DUAP	Department of Urban Affairs and Planning
EEC	Endangered Ecological Community
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
Glencore	Glencore Pty Ltd (formerly Xstrata Coal Pty Ltd)
HMA	Habitat Management Area
HRSTS	Hunter River Salinity Trading Scheme
ICOMOS	International Council on Monuments and Sites
IMT	Indurated Mudstone Tuff
JRAHS	Journal of the Royal Australian Historical Society
ML	Mining Lease
MNES	Matters of National Environmental Significance
Mount Owen	Mount Owen Pty Ltd
Mt	Million(s) of Tonnes
Mtpa	Million(s) of Tonnes per annum
NP&W Act	National Parks and Wildlife Act 1974 (Amendment 2010)
NPWS	National Parks and Wildlife Service
NSW	New South Wales
OEH	Office of Environment and Heritage
OzArk	OzArk Environmental & Heritage Management
PCWP	Plains Clan of the Wonnarua People
PEA	Preliminary Environmental Assessment
POM	Plan of Management
Project Area	Defined area within which a proposed development would occur, although portions of the Project Area may not be within the Project's disturbance footprint. The Project Area normally is the subject of the Environmental Impact Statement, which considers both the development area and surrounding lands.
Project Disturbance Area	Defined area that would be disturbed if a proposed developed was approved. The Project Disturbance Area occurs within the broader Project Area or assessment area.
RAP	Registered Aboriginal Party
RERR	Ravensworth East Resource Recovery
ROM	Run of Mine
SEPP	State Environmental Planning Policy
SoE Report	State of Environment Report
TP	Test Pit
TSC Act	Threatened Species Conservation Act 1995
TSR	Travelling Stock Route
VCA	Voluntary Conservation Area
WLALC	Wanaruah Local Aboriginal Land Council
WNAC	Wonnarua Nation Aboriginal Corporation
WTC	Wonnarua Traditional Custodians

Acknowledgements

Mount Owen, ACHM and staff would like to acknowledge the Traditional Owners of the Project Area of assessment – the Wonnarua People – and pay respect to their cultural heritage, beliefs and continuing relationship with the land.

We would also like to acknowledge the post-contact experiences of Aboriginal peoples who have attachment to the Project Area and surrounds.

We pay respect to the Elders, both past and present, for they hold the memories, traditions, culture and hopes of Aboriginal people in the area.

We thank the Registered Aboriginal Parties, their families and elders for their engagement in this Project. Their willingness to participate in discussions during land visits and to contribute in a meaningful way during workshops is greatly appreciated.

Executive Summary

The Mount Owen Complex is located within the Hunter Coalfields in the Upper Hunter Valley of New South Wales (NSW), approximately 20 kilometres north-west of Singleton, 24 kilometres south-east of Muswellbrook and to the north of Camberwell village.

The Mount Owen Complex consists of three open cut operations, Mount Owen (North Pit), Ravensworth East (West Pit and the proposed Bayswater North Pit (BNP) and the Ravensworth East Resource Recovery (RERR) mining areas) and Glendell (Barrett Pit). The mining operations at the Mount Owen Complex include the integrated use of the Mount Owen coal handling and preparation plant, coal stockpiles and the rail load-out facility.

Mount Owen expects, subject to market conditions, that mining will be completed within the currently approved area of the North Pit and the Ravensworth East Mine's West Pit by 2018 and 2014 respectively.

In order to continue these mining operations, Mount Owen has undertaken a review of its mining plans for the Complex with an extensive exploration program of its mining tenements and existing approved consent areas. The exploration has identified substantial additional mineable coal tonnes to the south of the currently approved North Pit and within the northern portion of the previously disturbed area of the Ravensworth East Mine, referred to as the Bayswater North Pit (BNP).

Mount Owen lodged its Environmental Impact Statement (EIS) in December 2013 with the former NSW Department of Planning and Infrastructure and the Federal Department of Environment for adequacy review but has now requested a delay prior to public exhibition until the EIS is revised to include the assessment of the BNP Ravensworth East mining area as well as a small increase in the disturbance area to the east of the proposed North Pit extension resulting from further mine design optimisation.

The BNP is located entirely within the approved mining disturbance area and extraction in the area is included as part of the overall Project's approval.

The optimisation of the North Pit continuation plan has resulted in an additional 4 Mt of ROM coal in a mining area of approximately 21 hectares that was not included in the proposed disturbance area previously assessed in 2013.

The total additional mineable coal tonnes of the revised Project are 92million tonnes, an increase of 22 million tonnes from the 2013 EIS.

The subject of this addendum is the impact of the additional 21 hectares of Disturbance Area to the proposed North Pit extension.

The additional 21 hectares of Project area discussed in this addendum report has been fully assessed for Aboriginal cultural and archaeological values in a series of additional assessments which mirror the Aboriginal cultural and archaeological values assessments reports undertaken by ACHM (2013) and OzArk (2012, 2013) respectively.

Five isolated artefacts were found during the field survey in May 2014, with two isolated artefacts located within the additional 21 hectares of the proposed Disturbance Area for the Project. The other 3 isolated artefacts are outside of the Disturbance Area.

The 2 additional sites will be harmed, but are of low archaeological and cultural significance. The knowledge holder groups and RAPs did not add any further cultural values information to the assessment process for the additional 21 hectares, leaving their views and inputs into the 2013 Aboriginal Cultural Heritage Assessment Report (ACHAR) (and also this addendum) unchanged.

The addendum report was issued for 28 days of review by the Project's RAPs, and there were no submissions.

This addendum will now form part of the EIS prepared for the Project and will be presented in addition to the earlier ACHAR completed in 2013.

Mount Owen anticipates re-lodging the modified EIS for the Mount Owen Continued Operations Project with the Department of Planning and Environment and the Federal Department of Environment in Quarter 3 2014.

Table of contents

Ownership and Disclaimer iii

Spatial Data iii

Abbreviations iv

Acknowledgements v

Executive Summary vi

1 Introduction 1

1.1 Structure of the Addendum 1

1.2 Project Overview 1

1.2.1 Ravensworth East Mine Amendment 2

1.2.2 North Pit Amendment – Additional area in Southeast 2

1.2.3 Total Project 2

2 Aboriginal Community Consultation 4

2.1 Consultation Objectives and Approaches 5

2.2 Summary of Consultation Activities 5

2.3 Cultural Heritage Assessment process for the Addendum 5

2.4 Stage 1 Consultation – Notification and Registration of Interest 5

2.5 Stage 2 Consultation – Project Briefings 5

2.6 Stage 3 Consultation – Cultural Values / Impact Assessment and Development of Management Measures 6

2.6.1 Aboriginal Archaeological Values Assessment 6

2.7 Aboriginal Consultation Methodology Preparation and Review 7

2.7.1 Project's Community RAP Consultation 7

2.8 Stage 3 Consultation - PCWP, WNAC and WTC 7

2.8.1 PCWP, WNAC and the WTC Consultation Summary 7

2.8.2 Wanaruah Local Aboriginal Land Council (WLALC) 9

2.8.3 OEH Consultation 9

2.9 Stage 4 Consultation – Draft ACHAR Review 9

2.9.1 Aboriginal Archaeological Values Assessment 9

3 Summary and Analysis of Background Information 10

3.1 Historical Narrative of the Project Area 10

3.2 Historical Grave 10

3.3 Scientific Significance Assessment 10

4 Cultural Heritage Values and Significance Assessment 11

4.1 Nature of Cultural Significance 11

4.1.1 Aesthetic Value 11

4.1.2 Historic Value 11

4.1.3 Scientific Value 12

4.1.4 Social Value 12
4.1.5 Spiritual Value 12
4.2 Degree of Cultural Significance 12
4.2.1 Rarity 12
4.2.2 Representativeness 13
4.2.3 Condition, Integrity and Authenticity 13
4.3 Mount Owen Continued Operations Cultural Heritage Values 13
4.4 Consolidated Statement of Significance 13
4.5 Conclusions 14
5 The Proposed Activity 16
5.1.1 The Project Disturbance Area 16
5.1.2 Mining Activities 16
5.1.3 Construction Activities 17
5.2 Proposed Timeframes and Staging 17
5.2.1 Mining Activities 17
5.2.2 Construction Activities 18
5.3 Assessing Potential Harm 18
5.3.1 Direct Impacts 18
5.3.2 Indirect Impacts 18
5.3.3 Cumulative Impacts 19
5.4 Justification of objectives 19
5.4.1 Objectives 19
5.4.2 Benefits of proposed Project 19
6 Avoidance of harm 21
6.1 Project Rationale 21
6.2 Opportunities to avoid impact 21
6.2.1 Mine Footprint 21
6.2.2 Additional 21 hectares 21
7 Recommendations 22
7.1 Mount Owen's Management Measures 22
7.2 Management Measures - No Project Approval Scenario 28
8 Bibliography 29
9 Appendices 32
9.1 Potential Historical Grave 32
9.2 Consultation Records 34
9.2.1 Stage 1 - Notification of Project Change 34
9.2.2 Log of Events 34
9.2.3 Stage 1 - Notification of Project Change 40
9.2.4 Stage 2 and 3 Briefing 49
9.2.5 Stage 3 - Archaeological Survey Field Results 59

9.2.6 Stage 3 - Notification of Cultural Values Site Visits and Workshop....77
9.2.7 Stage 3 - PCWP Response to Project change....85
9.2.8 Stage 3 - WLALC Response to Project change....86
9.2.9 Stage 3 - Wonnarua Nation Response to Project change....87
9.2.10 Stage 3 - WTC Response to Project change....88
9.3 OzArk Archaeological Values Assessment - Addendum Report....90
10 Bibliography....**Error! Bookmark not defined.**

List of maps

Map 1-1: Proposed Mount Owen Continued Operations Project Area, with the additional 21 hectares shown hatched blue at centre right of map....3

List of tables

Table 2-1: Timing of consultation activities during the 2014 Amended ACHAR process. 4
Table 2-2: RAPs attending archaeological survey 6
Table 2-3: Community RAPs attending the Field visit and workshop....7
Table 2-4: WTC attending the Field visit and workshop 9
Table 3-1: Two additional isolated artefacts to be impacted by the Project....10
Table 7-1: Proposed 'On Site' cultural heritage management measures to be adopted by Glencore for the Mount Owen Continued Operations Project. 25
Table 7-2: Proposed 'Off Site' Management Measures. 27

1 Introduction

The Mount Owen Complex is located within the Hunter Coalfields in the Upper Hunter Valley of New South Wales (NSW), approximately 20 kilometres north-west of Singleton, 24 kilometres south-east of Muswellbrook and to the north of Camberwell village.

The Mount Owen Complex consists of three open cut operations, Mount Owen (North Pit), Ravensworth East (West Pit and the proposed Bayswater North Pit (BNP) and the Ravensworth East Resource Recovery (RERR) mining areas) and Glendell (Barrett Pit). The mining operations at the Mount Owen Complex include the integrated use of the Mount Owen coal handling and preparation plant (CHPP), coal stockpiles and the rail load-out facility.

Mount Owen expects, subject to market conditions, that mining will be completed within the currently approved area of the North Pit and the Ravensworth East Mine's West Pit by 2018 and 2014 respectively.

In order to continue these mining operations, Mount Owen has undertaken a review of its mining plans for the Complex and an extensive exploration of its mining tenements and existing approved consent areas. The exploration has identified substantial additional mineable coal tonnes to the south of the currently approved North Pit and within the northern portion of the previously disturbed area of the Ravensworth East Mine, referred to as the Bayswater North Pit (BNP).

Mount Owen lodged its Environmental Impact Statement (EIS) in December 2013 with the former NSW Department of Planning and Infrastructure (now Department of Planning and Environment)and the Federal Department of Environment for adequacy review but has now requested a delay prior to public exhibition until the EIS is revised to include the assessment of the Ravensworth East mining area (specifically BNP and RERR) as well as a small increase in the disturbance area to the east of the proposed North Pit extension resulting from further mine design optimisation.

The need for such a Project change is being driven by a Glencore-wide focus on optimising value from all existing resources. This review requires each Glencore operation to consider all potential opportunities that maximise resource recovery within current operational areas and within Glencore held mining leases.

The BNP is located entirely within the approved mining disturbance area and extraction in the area is included as part of the overall Project's approval. The optimisation of the North Pit continuation plan has resulted in an additional mining area of approximately 21 hectares that was not included in the proposed disturbance area previously assessed in 2013.

The total additional mineable coal tonnes of the revised Project are 92million tonnes, an increase of 22 million tonnes from the 2013 EIS.

The subject of this addendum is the additional 21 hectare area of disturbance of the proposed North Pit extension. There are no offset areas, waterways or any areas of known Aboriginal significance within this 21 hectares.

This report was issued for 28 days of review in July 2014, with no submission and Mount Owen anticipates re-lodging the modified EIS for the Mount Owen Continued Operations Project (the Project) with the Department of Planning and Environment (DP&E) and the Federal Department of Environment in Q3 2014 for approval early 2016.

This final ACHAR addendum will form part of the EIS prepared for the Project and will complement the earlier ACHAR completed by ACHM in 2013.

1.1 Structure of the Addendum

The format of this report mirrors the format recommended by the Office of Environment and Heritage (OEH) in the *'Guide to investigating, assessing and reporting on Aboriginal cultural heritage in New South Wales'* (2010).

1.2 Project Overview

The Project is seeking development consent to continue mining the Mount Owen North Pit to the south of the current approved pit limit to extract identified new coal resources, as well as continued mining at Ravensworth East Mine (See Map 1-1). Because of the refinement of the mining plan at the Mount Owen Complex, the Project description has been altered from that originally assessed in the overall Aboriginal Cultural Heritage Assessment Report (Canning and Sutherland, 2013).

The changes that are the focus of this addendum are listed below.

1.2.1 Ravensworth East Mine Amendment

In late 2013, Mount Owen undertook a drilling exploration program in the northern portion of the Ravensworth East Mine which identified coal resource in a previously disturbed area, currently approved for mining. Further evaluation in early 2014 confirmed that this area is economically feasible to mine.

Findings from the exploration drilling have identified approximately 12 million mineable coal tonnes within the BNP which lies entirely within the approved disturbance footprint and mining leases for the existing Ravensworth East Mine. Extraction of this coal will enable full recovery of resources in the north of Ravensworth East with an additional 7 years of mine life for this area from that previously proposed.

The amended Project proposes that mining within the RERR Mining Area will be undertaken sequentially after the BNP is completed, thus increasing the period of employment and other ongoing social benefits to 2027 (this was previously predicted in the 2013 EIS to finish in 2019).

The total resource proposed for extraction at the Ravensworth East Mine is 18 million tonnes (Mt) ROM. (approximately 12 MT from BNP and 6 MT from RERR).

The Ravensworth East open cut operation is currently approved to produce 4 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal. This is not proposed to change within either the BNP or RERR Mining Areas.

1.2.2 North Pit Amendment – Additional area in Southeast

Mount Owen took the opportunity to also refine the mine planning for the eastern area of the proposed North Pit continuation in order to further optimise the coal resource recovery of the Project. This optimisation process has yielded approximately 4 million additional mineable coal tonnes for the Project, extending the life of the North Pit area by approximately 6 months.

This eastern area currently extends beyond the boundary of the disturbance footprint previously identified in the 2013 EIS (and ACHAR). This additional area outside the original disturbance footprint is approximately 21 hectares. However, the mine planning shows that this additional area is considered important to ensure optimum value is gained for the Project. The proposed extension of the disturbance boundary will not impact existing biodiversity offset areas, water bodies, alluvial or areas or known areas of aboriginal significance.

The North Pit open cut operation is currently approved to produce 10 Mtpa of ROM coal. This is not proposed to change, however the Project will enable extraction of approximately 74 million tonnes (Mt) ROM of additional mineable coal beyond the currently approved mining limit. These additional mineable coal tonnes would extend the North Pit mine life from the currently projected 2018 to approximately 2030.

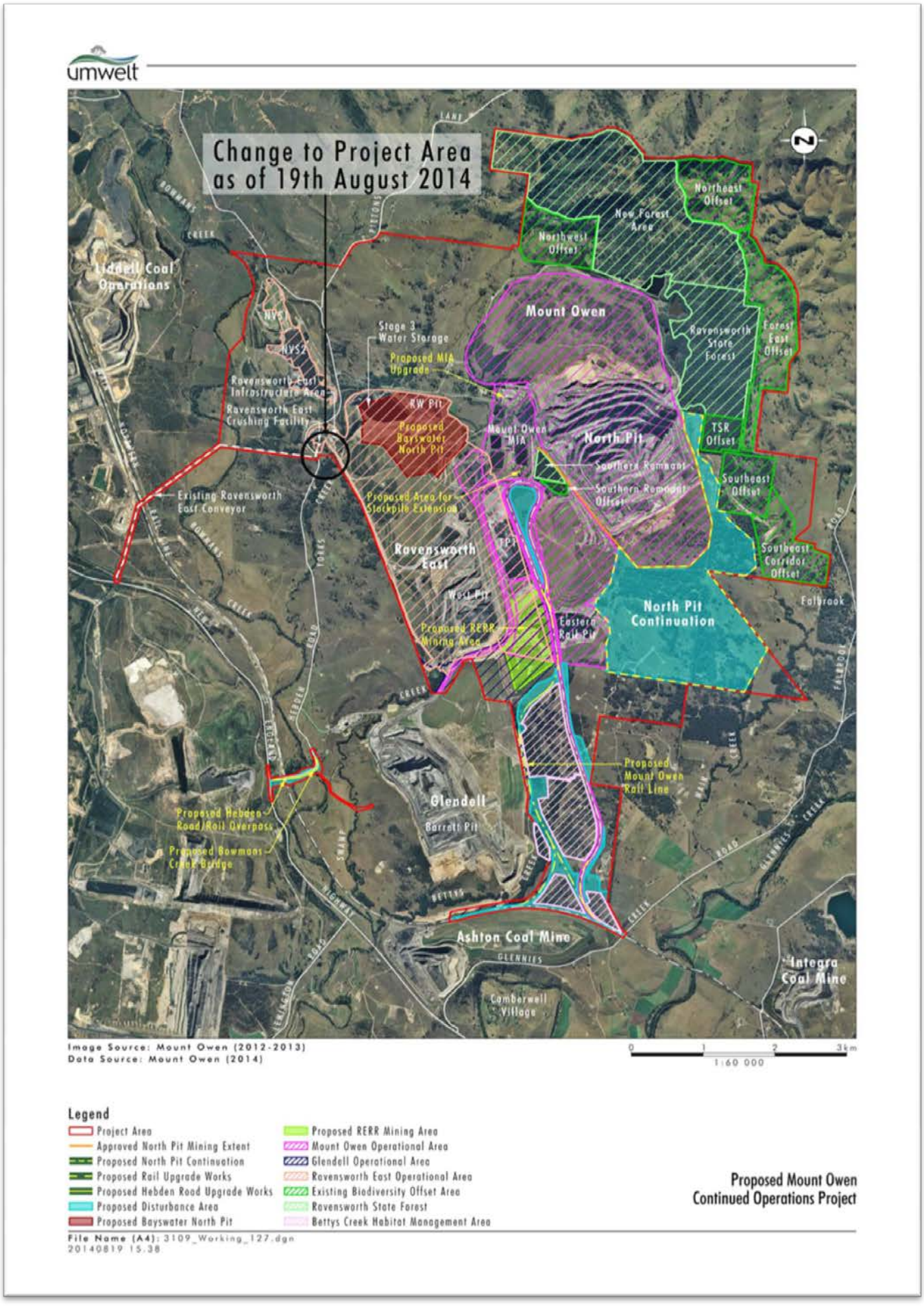
1.2.3 Total Project

The total proposed Project Disturbance Area is now 485 hectares, including the 21 hectares from the North Pit continuation amendment, all within the Project Area to allow for an additional 92 million tonnes of coal to be extracted from the Mount Owen Complex, adding 12 years of life and employment to existing operations.

The Project proposes to disturb approximately 381 hectares for the continuation of the North Pit in a southerly direction (from the current approved Mount Owen North pit shell);

The Project's proposed infrastructure upgrades remain unchanged from the previous assessment.

No changes are proposed to the approved Glendell mining operations.



Map 1-1: Proposed Mount Owen Continued Operations Project Area, with the additional 21 hectares shown hatched blue at centre right of map.

2 Aboriginal Community Consultation

Aboriginal people have rights and interests in the assessment and control of cultural heritage objects and places. In recognising these rights and interests, all parties concerned with identifying, conserving and managing cultural heritage should acknowledge, accept and act on the principles that Aboriginal people:

- are the primary source of information about the value of their heritage and how this is best protected and conserved;
- must have an active role in any Aboriginal cultural heritage planning process;
- must have early input into the assessment of the cultural significance of their heritage and its management so they can continue to fulfil their obligations towards their heritage; and
- must control the way in which cultural knowledge and other information relating specifically to their heritage is used, as this may be an integral aspect of its heritage value.

Consultation with Aboriginal people about cultural heritage places and the manner in which they should be managed is required under Part 6 of the NP&W Act. The processes of consultation are specifically outlined in the Department of Environment, Climate Change and Water publication *'Aboriginal cultural heritage consultation requirements for proponents 2010'*.

This project has followed these guidelines, and has also been consistent with the DECC 2005 guidelines.

The following table outlines the series of consultation activities and workshops conducted by Mount Owen throughout the preparation of this amendment of the ACHAR.

Table 2-1: Timing of consultation activities during the 2014 Amended ACHAR process.

Event	Time
Draft 2013 ACHAR – issued for 28 day review	Late September 2013
Final review with RAPs on Recommendations	October 2013
Lodge ACHAR for Adequacy with DR&E	December 2013
Review Project Description	Dec 2013- March 2014
Notified DR&Es of a Project Amendment	March 2014
Notified RAPs of a Project Amendment	April 2014
Archaeological Survey of the 21 hectare amendment	29 April 2014
Archaeological Survey Results issued to RAPs	22 May 2014
PCWP response on no change to values / recommendations	27 May 2014
Community RAP site visit and cultural values workshop	5 June 2014
WTC site visit and cultural values workshop	12 June 2014
WLALC response on no change to values / recommendations	16 June 2014
WNAC visits to site	18 June 2014
WTC Elders visit	3 July 2014
Draft ACHAR Amendment issued for 28 days	July 2014
Draft Archaeological Survey amendment issued for 28 days	July 2014
28 day review period	August 2014
Final ACHA and EIS lodged for Adequacy review to DR&E	September 2014

2.1 Consultation Objectives and Approaches

> *'Consultation with Aboriginal people is an integral part of the process of investigating and assessing Aboriginal cultural heritage. Aboriginal people who hold cultural knowledge about the area, objects and places that may be directly or indirectly affected by the proposed activity must be given the opportunity to be consulted. This is done through the process of investigating, assessing and working out how to manage the harm from the proposed activity. Consultation must adhere to the requirements set out in Clause 80C of the NPW Regulation' (OEH 2011:2).*
>
> *'Conservation, interpretation and management of a place should provide for the participation of people for whom the place has special associations and meanings, or who have social, spiritual or other cultural responsibilities for the place' (Australia ICOMOS 1999).*

Based on the DGRs and OEH guidelines for Aboriginal cultural heritage assessment in NSW, Aboriginal participation and involvement of in all stages of cultural heritage assessment and management has been fundamental to the Project's ACHAR and this Amendment.

After formal notification to the Registered Aboriginal Parties (RAPs) of the 21 hectares of additional disturbance to the Project, including the WLALC, OEH, Community RAPs and the three knowledge holder groups, WTC, WNAC and the PCWP, visits and discussion was organised by Mount Owen, OzArk and ACHM with the RAPs to understand if the further disturbance changed their values and recommendations on the Project as prepared in the 2013 ACHAR.

2.2 Summary of Consultation Activities

Appendix 11 provides a detailed summary of all consultation activities undertaken for the Project (in tabular format).

2.3 Cultural Heritage Assessment process for the Addendum

For the amended disturbance area, consultation consistent with the DEC (2005) and DECCW (2010a) guidelines and in accordance with the principles of The Burra Charter (Australia ICOMOS 1999) involved four consultation stages as detailed in the DECCW (2010a) guidelines (outlined below).

Stage 1: Mount Owen has 60 registered Aboriginal parties for the Project from 2013.

Stage 2: Mount Owen, OzArk, and ACHM notified all Registered Aboriginal parties who registered an interest in 2013 of a Project change with information on the amended Project description. Stage 2 also included the briefings of the OEH, WLALC, PCWP, WTC and WNAC on the amended Project.

Stage 3: Mount Owen, OzArk and ACHM conducted consultation to review site specific and cultural, social, historic and aesthetic values, which included the value of archaeological and cultural sites, flora and fauna and landscape features to inform the whether the amended Project (the addition of 21 hectares of disturbance) changed any of the results and recommendations from the 2013 ACHAR and archaeological surveys. This consisted of organised bus tours and site visits of the site of the additional 21 hectares. No previously assessed areas were revisited.

Stage 4: Mount Owen, OzArk and ACHM conducted consultation in relation to the RAPs review of the Project's amended cultural heritage assessment reports, so as to seek feedback, receive and review submissions and to incorporate any additional input into the finalised amended ACHAR.

This process included a 28 day review period of this amendment.

2.4 Stage 1 Consultation – Notification and Registration of Interest

Stage 1: Mount Owen has 60 RAPs who registered an interest in the Project following the formal **Stage 1** registration period in 2013.

2.5 Stage 2 Consultation – Project Briefings

Stage 2 of the DECCW (2010a) consultation process relates to the presentation of Project information about the planned development activities and the upcoming consultation and heritage assessment process.

On the 16th April 2014, Mount Owen issued a notification to all RAPs including a description of the proposed 21 hectare amendment to the Project.

2.6 Stage 3 Consultation – Cultural Values / Impact Assessment and Development of Management Measures

Stage 3 of the DECCW (2010a) consultation process relates to gathering information about the cultural values of an assessment area, to seek Aboriginal registrant information that will enable the cultural significance of the place to be determined, and to provide Aboriginal registrants with the opportunity to provide input on cultural heritage management options.

Between April and June 2014, all RAPs were provided with an opportunity to participate in the **Stage 3** consultation program. This program involved discussions about the cultural values of the amended Project Disturbance Area and the likely impacts of the Project, if approved.

Section 2.6.1 describes the consultation undertaken with all RAPs during the archaeological surveys, and describes the consultation with the Project's Community RAPs.

Section 3.7 describes the consultation with the WLALC, PCWP, WTC and WNAC.

During **Stage 3** the consultations included:

- Notification of the amended Project through a letter to all RAPs on 16th April 2014;
- OEH and WLALC were notified of the amended Project by mail on the 16th April 2014;
- One day of archaeological survey undertaken on 29th April 2014 (no test excavation was determined to be necessary);
- Issuing the results of the archaeological survey. Two isolated finds were recorded in the 21 hectares of additional disturbance;
- Presentations regarding the archaeological survey results and the amended Project was offered to all RAPs, the WLALC, WNAC, PCWP and the WTC;
- Three additional cultural values site visits were undertaken in June 2014;
- Meetings with the RAPs, PCWP, WNAC and the WTC;
- A review of the impact assessment including direct, indirect and cumulative impact assessments;
- A review of the management recommendations and measures; and
- Intergenerational equity opportunities and options.

2.6.1 Aboriginal Archaeological Values Assessment

The Archaeological survey methodology utilised for the additional 21 hectares was identical to that applied during the previous (2013) survey of the rest of the Project disturbance area.

- RAPs were contacted by phone by Mount Owen during the 2 weeks prior to survey to organise 12 rostered RAPs as per the methodology applied in 2013;
- One day of archaeological survey was conducted on the 29th April 2013 by OzArk's Ben Churcher and Jennifer Bertolani and 8 RAPs;

It is noted that numerous calls were made to RAPs to fill the normal roster of 12, and though Mount Owen was able to confirm 12 RAPs for the 28th April 2013 by phone, only 8 RAPs attended for the day;

Table 2-2: RAPs attending archaeological survey

RAP Name	RAP Name	RAP Name
Georgina Berry (WNAC)	Rhonda Ward (PCWP)	Mervyn Leslie (WTC)
Sandra Miller (WNAC)	Maria Stocks (PCWP)	David Ahoy (Community)
Rebecca Lester (WNAC)	Annastazia Stocks (PCWP)	

- The summary of the OzArk archaeological survey was made available to all concerned by mail on the 22nd May 2014. The survey located 2 isolated finds in the 21 hectares of additional Project disturbance area;

The Aboriginal Archaeological Values Assessment Report (as amended) is included in Volume 2 of the ACHAR.

2.7 Aboriginal Consultation Methodology Preparation and Review

2.7.1 Project's Community RAP Consultation

The RAPs not being consulted by the PCWP, WNAC and WTC were consulted by Mount Owen and ACHM to obtain and record their cultural values and recommendations in regard to the additional 21 hectares of disturbance.

A summary of the consultation activities in **Stage 3** is as follows, with a full log of consultation included in the Appendices;

- RAPs were notified of the amended Project by mail on the 16th April 2014;
- Community RAPs were invited to, and participated in, the rostered archaeological survey from the 29th April 2014;
- The results of the archaeological survey were mailed to all RAPs on the 22nd May 2014;
- Community RAPs, including the WLALC, were invited to a presentation of the archaeological survey results, a discussion about the amended project description, and an organised site visit of the additional 21 hectare area with Mount Owen and ACHM on the 5th June 2014;
- A discussion of values and recommendations with the Community RAPs and ACHM occurred on the 5th June 2014;
- 10 RAPs attended the field visit and workshop.

Table 2-3: Community RAPs attending the Field visit and workshop

RAP Name	RAP Name	RAP Name
Mingga Consultants	Gomery Cultural Consultants	Muswellbrook Cultural Consultants
Breeza Plains Culture & Heritage Consultants	Hielamon Cultural Consultants	Roger Noel Matthews Consultancy
Wunda Cultural Consultants	JLC Cultural Services	Wonnarua Culture & Heritage
Cheryl Moodie Consulting		

Feedback

The RAPs who attended the site visit on 5th June had no further comments to add to the November 2013 ACHAR. The additional 21 hectares proposed to be added to the Project disturbance area was not considered to have any additional or new cultural values associated with it, and all participants were happy to rely on the results and recommendations of the overall ACHAR and recommended no changes to the outcomes of the process.

2.8 Stage 3 Consultation - PCWP, WNAC and WTC

Section 2.8 provides more detail on the consultation undertaken with the WLALC, PCWP, WNAC and the WTC and their members in order to gain any further detail that the knowledge holders may wish to add to the comprehensive reports they wrote for the Project in 2013, and whether the amended Project changed any of their cultural values and recommendations for the Project.

2.8.1 PCWP, WNAC and the WTC Consultation Summary

PCWP

A summary of the key consultation and or support in Stage 3 is as follows, with a full log of consultation included in the Appendices (Section 9):

- PCWP received notice of the amended Project by mail on the 16th April 2014;
- PCWP were invited to, and participated in the rostered archaeological survey day on the 29th April 2014;
- The results of the archaeological survey were mailed to the PCWP on the 22nd May 2014;
- Mount Owen consulted with the PCWP on their values and recommendations, and offered an opportunity for further site visits if required in May 2014;

- On the 27th May 2014, the PCWP (via email) informed Mount Owen that the amended Project area does not change or modify the recommendations contained in the PCWP report completed in 2013 for the Mount Owen Project.
- A summary of the amended Project ACHAR was issued to the PCWP for 28 days of review in July 2014.

PCWP Feedback

The PCWP commented that the amended Project did not modify their values or recommendations presented to Mount Owen for the 2013 EIS.

WNAC

A summary of the key consultation and or support in **Stage 3** is as follows, with a full log of consultation included in the Appendices.

- WNAC received notice of the amended Project by mail on the 16th April 2014;
- WNAC were invited to, and participated in the rostered archaeological survey day on the 29th April 2014;
- The results of the archaeological survey were mailed to the WNAC on the 22nd May 2014;
- Mount Owen consulted with the WNAC on their values and recommendations, and offered further visitation if required in May and June 2014;
- The WNAC attended the area of disturbance for a site visit on the 18th June 2014 and the WNAC CEO emailed Mount Owen on the 30 June 2014 indicating that the 21 hectares will not affect the findings of the 2013 ACHAR.
- A summary of the amended Project ACHAR was issued to the WNAC for 28 days of review in July 2014.

WNAC Feedback

The WNAC commented that the amended Project did not modify their values or recommendations presented to Mount Owen for the 2013 EIS.

WTC

A summary of the key consultation and or support in **Stage 3** is as follows, with a full log of consultation included in the Appendices.

- The WTC received notice of the amended Project by mail on the 16th April 2014;
- The WTC were invited to, and participated in the rostered archaeological survey day on the 29th April 2014;
- The results of the archaeological survey were mailed to the WTC on the 22nd May 2014;
- Further copies were mailed and made available to Elders in June 2014;
- The WTC were invited for a presentation of the archaeological survey results, the amended project description, and an organised bus tour of the area of amendment with Mount Owen on the 12th June 2014;
- Thirteen RAPs attended the field visit and workshop.
- Mount Owen offered further visitation for Elders during the visit of the 12th June 2014;
- Eight Elder's visited the site on the 3rd July 2014 with an organised bus tour;
- A discussion of values and recommendations with the WTC and Mount Owen occurred on the 12th June and 3rd July 2014;
- A summary of the amended Project ACHAR was issued to the WTC for 28 days of review in July 2014.

WTC Feedback

A bus was organised by Mount Owen and all the WTC were contacted by mail and phone. The 13 of the 27 WTC RAPs who attended the field visit and workshop on the 12th June 2014 are shown in Table 2-4. A further eight elders attended the site on the 3rd July 2014.

Table 2-4: WTC attending the Field visit and workshop

RAP Name	RAP Name	RAP Name
Aboriginal Native Title Consultants	Hunter Valley Cultural Consultants	T & G Cultural Consultants
Deslee Talbott Consultants	Ka-u-ma Pondee	Upper Hunter Heritage Consultants
Divine Diggers	L. J. Culture Management	Wonnarua Culture Heritage
DRM Cultural Management	Myland Cultural &Heritage Group	
Giwiirr Consultants	Smith Dhagaans Cultural Group	

The WTC commented that the amended Project did not modify their values or recommendations presented to Mount Owen for the 2013 EIS.

2.8.2 Wanaruah Local Aboriginal Land Council (WLALC)

A summary of the key consultation and or support in **Stage 3** is as follows, with a full log of consultation included in the Appendices.

- The WLALC received notice of the amended Project by mail on the 16th April 2014;
- The results of the archaeological survey were mailed to the WLALC on the 22nd May 2014;
- The WLALC were invited for a presentation of the archaeological survey results, the amended project description, and an organised bus tour of the additional 21 ha area with Mount Owen and ACHM on the 5th June 2014;
- The WLALC did not attend or reply to Mount Owen's invitation for the 5th June 2014 site visit and workshop;
- Mount Owen sent the WLALC and email on the 16th June 2014 asking the WLALC if they wished to make and comments on the Amended Project;
- The WLALC responded by email on the 16th June 2014;
- A summary of the amended Project ACHAR was issued to the WLALC for 28 days of review in July 2014.

WLALC Feedback

The WLALC included this feedback in their response to the additional 21 hectares of disturbance:

1. 'At this stage we do not believe the extra disturbance makes any change to the values we have already submitted'.

2. 'The recommendations and conditions we set in previous correspondence still apply', and

3. 'We are still very disappointed that Glencore continues to use the Xstrata Reconciliation Action Plan as a weapon against the Aboriginal Community to prevent any form of real social impact compensation for the destruction of cultural landscapes and sites'.

2.8.3 OEH Consultation

Mount Owen notified OEH of the amended Project on the 16th April 2014.

Mount Owen intends to consult with OEH on the findings during the EIS's adequacy review period.

2.9 Stage 4 Consultation – Draft ACHAR Review

Stage 4 of the DECCW (2010a) consultation process relates to RAPs reviewing the draft ACHAR.

This ACHAR Addendum and a summary of the outcomes of the survey and the proposed key changes to the OzArk Aboriginal Archaeological Values Assessment Report (as amended) was issued to the Project's RAPs and other knowledge holders for 28 day review in July 2014.

There were no submissions on any cultural issues raised in that review Period during those 28 days.

2.9.1 Aboriginal Archaeological Values Assessment

The OzArk new Aboriginal Archaeological Values Assessment Report is included in Volume 2.

3 Summary and Analysis of Background Information

3.1 Historical Narrative of the Project Area

Unchanged from the November 2013 ACHAR (Canning and Sutherland, 2013: Volume 1).

3.2 Historical Grave

An update in regard to the potential historical grace discussed in the November 2013 ACHAR is provided in Appendix 9.1, as this was a concern in the 2013 ACHAR.

After the investigation with nothing found, this area has no longer any local historical or cultural significance

3.3 Scientific Significance Assessment

An additional 2 isolated artefacts were located in the additional 21 hectares of archaeological assessment for the amended Project. These 2 additional isolated finds will be harmed by the Project.

There are now 34 sites which will be harmed by the project.

The 34 sites consist of 17 isolated finds, 11 artefact scatters, 3 extensions to sites and 3 previously recorded sites.

The overall scientific significance of sites within the Proposed Project Disturbance Area is affected by:

- wide-spread soil loss that affects nearly all portions of the Project Area;
- major disturbances from approved mining activity including built infrastructure, soil dumps, tracks, the diversion of water away from creeks and other mine related impacts such as revegetation programs;
- the archaeological landscape within the Proposed Project Disturbance Area being fragmented by previously approved mining; and
- the varying amounts of archaeological salvage that has been carried out previously.

The majority of sites have been assessed as having low scientific significance. In most cases this is because the sites are low density artefact scatters or isolated finds located in landforms with thin A Horizon soils where further subsurface archaeological deposits are unlikely. In some cases the artefacts may be more numerous but erosion has affected a large percentage of the site and the visible artefacts are displaced and of limited archaeological value.

The 2 additional sites to be harmed in the amended disturbance area are assessed as having low scientific significance.

Table 3-1: Two additional isolated artefacts to be impacted by the Project.

Site name	Site type	Site description	GDA Zone 56 Easting	GDA Zone 56 Northing	Survey Unit
MOCO IF21	Isolated artefact	Broken mudstone flake	323845	6412318	5
MOCO IF22	Isolated artefact	Mudstone flake with possible edge wear	323861	6411957	5

4 Cultural Heritage Values and Significance Assessment

The following information was originally presented in the November 2013 Aboriginal Cultural Heritage Assessment Report and is unchanged by the results of the 21 hectares added to the Project disturbance area.

Assessing the cultural significance of places or objects is central to both understanding and managing heritage places, and is a requirement of the Aboriginal Cultural Heritage Assessment reporting process. This section briefly describes the process and presents the cultural significance assessment for the Aboriginal heritage places in the Project Disturbance Area.

This section of the report specifically recognises that Aboriginal people are the primary determinants of information in regard to the significance of cultural heritage objects, places or values. Indeed, this primacy is explicitly recognised by the Office of Environment and Heritage:

> *OEH recognises and acknowledges Aboriginal people as the primary determinants of the cultural significance of their heritage. In recognising these rights and interests, all parties concerned with identifying, conserving and managing cultural heritage should acknowledge, accept and act on the principles that Aboriginal people:*
>
> *- Are the primary source of information about the value of their heritage and how this is best protected and conserved,*
>
> *- Must have an active role in any Aboriginal cultural heritage planning process,*
>
> *- Must have early input into the assessment of the cultural significance of their heritage and its management so they can continue to fulfil their obligations towards their heritage, and*
>
> *- Must control the way in which cultural knowledge and other information relating specifically to their heritage is used, as this may be an integral aspect of its heritage value.*

4.1 Nature of Cultural Significance

The nature of cultural significance is determined by understanding the interrelationship of the following core values, and the constituent factors assessed. These values are:

4.1.1 Aesthetic Value

A concept, place or object can have cultural significance if it is significant in exhibiting particular aesthetic characteristics. Such as:

- Importance to a community for aesthetic characteristics.
- Importance for its creative, design or artistic excellence, innovation or achievement.
- Importance for its contribution to the aesthetic values of the setting demonstrated by a landmark quality or having impact on important vistas or
- Otherwise contributing to the identified aesthetic qualities of the cultural environs or the natural landscape within which it is located.

4.1.2 Historic Value

A concept, place or object can have cultural significance if it is significant in exhibiting particular historic characteristics. Such as:

- It is significant in the evolution or pattern of the history of a locality, region, state, nation or people.
- Importance for the density or diversity of cultural features illustrating the human occupation and evolution of the locality, region, state or nation.
- Importance in relation to an event, phase or activity of historic importance in the region, state or nation
- Importance for close association with an individual or individuals whose life, works or activities have been significant within the history of the region, state or nation
- Importance as an example of technical, creative, design or artistic excellence, innovation or achievement in a particular period.

4.1.3 Scientific Value

A concept, place or object can have cultural significance if it is significant in exhibiting particular scientific characteristics. Such as:

- It has demonstrable potential to yield information that will contribute to an understanding of the natural or cultural history of the region, state or nation
- Importance for information contributing to a wider understanding of natural or cultural history by virtue of its use as a research site, teaching site, type locality, reference or benchmark site.
- Importance for its potential to yield information contributing to a wider understanding of the history of human occupation of the locality, region, state or nation.
- It is significant in demonstrating a high degree of technical innovation or achievement.

4.1.4 Social Value

A concept, place or object can have cultural significance if it is significant in exhibiting particular social characteristics. Such as:

- Association with a community or cultural group for social, cultural, educational or spiritual reasons.
- Importance as a concept, place or object highly valued by a community or cultural group for reasons of social, cultural; religious, spiritual, aesthetic or educational associations.
- Importance in contributing to a community's sense of place and/or identity.

4.1.5 Spiritual Value

The Draft 2013 ICOMOS practice note '*Understanding and Assessing Cultural Significance*' defines 'spiritual value' as the *'intangible values and meanings embodied in or evoked by a place which give it importance in the spiritual identity, or the traditional knowledge, art and practices of a cultural group. Spiritual value may also be reflected in the intensity of aesthetic and emotional responses or community associations, and be expressed through cultural practices and related physical structures'* (ICOMOS, 2013: 1).

The physical qualities of the place may inspire a strong and/or spontaneous emotional or metaphysical response in people, expanding their understanding of their place and purpose in the world, particularly in relation to the spiritual realm. The term spiritual value was recognised as a separate value in the 1999 Burra Charter (ICOMOS, 1999). It is still included in the definition of social value in the Commonwealth and most state jurisdictions. Spiritual values may be interdependent on the social values and physical properties of a place and its surrounding landscape.

A place may exhibit spiritual values if:

- The place contributes to the spiritual identity or belief system of a cultural group
- The place is a repository of knowledge, traditional art or lore related to spiritual practice of a cultural group
- The place is important in maintaining the spiritual health and well-being of a culture or group
- The physical attributes of the place play a role in recalling or awakening an understanding of an individual or group's higher purpose and place in relation to the spiritual realm.
- The spiritual values of the place find expression in cultural practices or human-made structures, or inspire creative works.

4.2 Degree of Cultural Significance

Once the nature of the cultural significance of a place or object is understood, it is essential to understand the extent or degree of that cultural significance. This is typically established by considering:

4.2.1 Rarity

A concept, place or object can have cultural significance if it:

- Demonstrates or possesses rare, uncommon or endangered aspects of the cultural heritage of a locality, region, state or nation.
- Demonstrates or possesses rare, endangered or uncommon structures, landscapes or phenomena.
- Demonstrates or possesses a distinctive way of life, custom, process, land-use, function or design no longer practiced in, or in danger of being lost from, or of exceptional interest to, the region, state or nation.

4.2.2 Representativeness

A concept, place or object can have cultural significance if it:

- Is significant in demonstrating the characteristics of a class of cultural concepts, objects, places or environments in the State.
- Is important in demonstrating the principal characteristics of a range of concepts, objects, landscapes or environments, the attributes of which identify it as being characteristic of its class.
- Is important in demonstrating the principal characteristic of the range of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the locality, region, state or nation.

4.2.3 Condition, Integrity and Authenticity

- Condition refers to the current state of the concept, place or object in relation to each of the values for which that concept, place or object has been assessed. Condition reflects the cumulative effects of management and environmental events.
- Integrity is a measure of the likely long-term viability or sustainability of the values identified, or the ability of the concept, place or object to restore itself or be restored, and the time frame for any restorative process.
- Authenticity refers to the extent to which the fabric of the concept, place or object is in its original state.

4.3 Mount Owen Continued Operations Cultural Heritage Values

This section of the ACHAR presents the results of cultural values consultation with the Knowledge Holder groups and the RAPs associated with this project.

4.4 Consolidated Statement of Significance

The assessment of cultural significance presented in this section relates primarily to the *Project Area, but also includes an assessment of the cultural significance of the wider region*.

It is noted that the numerous Aboriginal stakeholders who participated in this cultural values assessment process hold values which relate to the wider Hunter Valley region generally and less directly to the Project Area specifically. However, one of the Knowledge Holder groups holds very strong values over the Project Area. Other than the one group expressing strong connection to the Project Area, there was very little other information presented in the disclosed material or values workshops which relates specifically to the Project Area.

A common theme in many Aboriginal cultural heritage assessments is the proprietary interest members of the relevant Aboriginal communities hold in regard to the wider cultural landscape including archaeological sites or places within any given area. The Project is no exception in this regard. Within the context of the current assessment, there are strong on-going connections to places created and used by ancestors alongside demonstrably strong interests in the manner in which those places are managed or harmed as a result of this Project. These sentiments are not unique, and must certainly be considered in the overall assessment of the significance of the places in question. The connection to these places is noted as often being relatively unspecific and generally do not appear to relate to any surviving traditional knowledge or customary cultural practices, apart from one of the Knowledge Holder groups who express a strong connection to on-going cultural knowledge and customary lore in this location.

The cultural values expressed by the participants in this assessment have been consistent in voicing an over-arching concern for the wider landscape and criticism of the negative impact of mining on that landscape. Consistent in the material disclosed is a sense of '*outrage*' and grief at the treatment of Aboriginal people since First Settlement (dispossession and genocide are mentioned repeatedly) through to more contemporary experiences (i.e. the Stolen Generation).

There is also a consistent theme in the submissions of the 'powerlessness' Aboriginal people often feel when confronted by situations where they feel disempowered or unable to exercise influence on decision makers. There is a sense of loss and lament for what once was, but with a very strong expression of '*corporate*' ownership of the wider region by the Wonnarua people (regardless of the variety of ways in which those groups represent their own interests).

There is also an element of celebrating the survival of those who are now speaking for country. While the entire estate of the Wonnarua people is significant to those concerned, there is little direct evidence (anecdotal or otherwise) of any particular or specific places or values of significance within the Project Area, other than its inherent value by being the 'cross-roads' of significant cultural and historical landscapes and being 'witness' to certain grand historical events through time.

For many of the informants, the contemporary attachment to place appears based on the linkage to archaeological places which were created by *'the ancestors'* and thereby constituting a connecting thread to a cultural world from another time.

This general lack of disclosed direct or specific cultural knowledge in no way diminishes the strength of connection to the places within the Project Area. However, the attachment to place is one which is predominantly of contemporary association rather than traditional knowledge, custom, lore or practice. As mentioned, there is traditional knowledge and a strong historical connection expressed by one of the Knowledge Holder groups, however much of the other disclosed information provided by the participants in this Project Area is more historic in nature.

It is noted that the surrounding area is held to be of higher significance to many members of the Wonnarua community, however the sites and/or places within the Project Area were considered by all to be of lower significance.

Significantly, many of the submissions received have highlighted the benefits of this ACHAR process to the RAPs. Participants describe the process as having empowered the groups concerned by having provided the opportunity for the Knowledge Holder groups to write their own cultural values assessments, and discuss how this process has benefited the group(s) as a whole.

Those archaeological sites in the Project Disturbance Area investigated revealed relatively sparse artefact concentrations in shallow and disturbed contexts. Archaeologically, all of the places located and/or identified conform to the Australian Small Tool Tradition, and most likely date to no more than the last 2,000 to 3,000 years.

The majority of the Project Area has been subjected to varying degrees of land clearing and mining since first settlement, destroying the primary context of much of the physical cultural material present, and irretrievably altering the landscape itself.

Given the nature and extent of the archaeological sites identified, there is little additional knowledge which would be added to the archaeological record from any further investigation of this material. There is little probability for the presence of undisturbed and deeply stratified archaeological sites within the Project Area.

In general, the archaeological sites in the Project Disturbance Area offer:

- Limited research potential in regard to regional and/or localised subsistence and resource procurement activities,
- Limited research potential to address questions on stone tool technologies in the region,
- Limited potential for radiometric dating methods to be applied to the sites,
- Limited research potential to address questions about the timing of the first occupation of this region of the Hunter Valley,
- Limited research potential to address questions about the timing of the Aboriginal settlement history of the Hunter Valley, and
- Limited potential to reveal further unique spatiotemporal patterning which would add to the archaeological record.

4.5 Conclusions

There is little doubt that the wider cultural landscape surrounding (and encompassing) the Project Area is of high cultural and historical significance to Wonnarua people. The historical associations with early settlement, conflict, dispossession and survival are important, and the nature of the area as a surviving cultural landscape of significance to numerous members of the Wonnarua people makes this an area of regional and national significance. The regional archaeological record is also of high regional significance. Overall, the cultural significance of the wider region is considered to be high, and requires considerable additional research to fully understand.

This ACHAR has ascertained that there are only limited deeper cultural values associated with the Project Area (directly and specifically) held by a limited number of participants in the ACHAR process. The landscape within the Project Area is highly disturbed and fragmented, resulting in much of the archaeological record already

having been disturbed. Much of the natural landscape no longer exists, as the history of agriculture and coal mining has irreversibly altered the landscape. The archaeological sites investigated within the Project Area are of low significance. Therefore, it is the opinion of the authors that these extant archaeological sites and the remnant cultural landscape within the Project Area have undergone considerable modification since European settlement and are therefore of lower cultural significance than the surrounding region and is not grounds to prevent the project being approved.

No submissions or objections were reviewed on this conclusion.

5 The Proposed Activity

The Mount Owen Complex is located within the Hunter Coalfields in the Upper Hunter Valley of New South Wales (NSW), approximately 20 kilometres north-west of Singleton, 24 kilometres south-east of Muswellbrook and to the north of Camberwell village

In late 2013, Glencore initiated an internal review on optimising the value from all its existing resources. This review involved each operation to consider all potential opportunities that maximise resource recovery within current operational areas and within Glencore held mining lease.

Mount Owen has undertaken extensive exploration of its mining tenements but did further exploration of mineable reserves in existing approved consent areas. This assessment has identified additional mineable coal within the northern portion of the previously disturbed area of the Ravensworth East Mine, referred to as the Bayswater North Pit (BNP). The review of the North Pit Continuation made some minor changes (primarily in the east of the proposed North Pit) arising from further mine design optimisation.

This refinement has increased the mining disturbance area by 21 hectares from the area assessed during the 2013 EIS and 2013 ACHAR process.

Mount Owen is seeking approval for the Mount Owen Continued Operations Project (the Project) to extract these additional mineable resources south of the currently approved Mount Owen North Pit mining limit, as well as the economical mineable coals from the Ravensworth East Mine, through open cut mining methods.

The mining extension will add approximately 12 years of life (North Pit) to Mount Owen and Ravensworth East mines, enabling the recovery an approximate additional 92 Mt ROM of practical coal recovery within the leases currently held by Mount Owen.

All activities described in this proposed Project lie with the Project Disturbance Area.

5.1.1 The Project Disturbance Area

The total Project Disturbance Area is approximately 485ha (including the additional 21 hectares discussed in this addendum) and is the land which would be directly impacted by the Project.

In accordance with the relevant NSW Office of the Environment and Heritage (OEH) guidelines, the Proposed Project Disturbance Area is the impact area for the Aboriginal archaeological values and cultural values assessments.

The total Proposed Disturbance Area includes the area of the continued North Pit mining footprint and the proposed infrastructure works, all of which involve some surface disturbance and direct impact to the landscape.

Where possible the Project activities will be undertaken in a manner that limits the amount of physical ground disturbance. This will not be possible in every instance, nor is the Project able to accurately identify every area within the Project Area that will remain undisturbed.

Consequently, not all of the area identified as being within the disturbance footprint will be disturbed. The difficulty is in accurately defining the precise location of laydown pads, storage, access tracks, infrastructure and support alignments, water management infrastructure and other impact areas associated with the development of the Project.

To overcome this, buffers have been applied around areas that are known to be, or are likely to be disturbed. In this way, the maximum potential footprint of the Project has been identified and assessed, and is known as the Project Disturbance Area.

The Project Disturbance Area footprint shown in Map 1-1 shows this maximum envelope of disturbance, being 381 hectares of mining area and 104 hectares of infrastructure and laydown works.

5.1.2 Mining Activities

Mining operations will continue within the North Pit and Ravensworth East by extending the North Pit south, by approximately 381ha.

The key features of the proposed mining extension include:

- The continuation of operations would be located wholly on land owned by Mount Owen.
- The extraction of approximately 92Mt of ROM coal over the life of the Project by existing open cut mining methods, with 74 Mt from the North Pit Continuation and 18Mt from Ravensworth East;
- Continued open cut mine life of 12 years to 2030 and the ongoing employment of a workforce of 660 at the North Pit Continuation and 11 years employment for the 260 employees at Ravensworth East;

- An extension of mine life for 21 years (from the date of approval) to allow for mining and final closure and rehabilitation of the Project area;
- Continued use of Ravensworth East voids for tailings emplacement as well as in-pit as well as co-disposal of coarse reject in Ravensworth East Emplacement Area and within the North Pit;
- Progressive rehabilitation of the Mount Owen North Pit footprint and the Ravensworth East disturbed areas, merging landforms across the Complex; and
- Maximising the use of previously disturbed areas and existing mining infrastructure at the Mount Owen and Ravensworth East mines, thereby minimising the overall proposed Project Disturbance Area as far as practicable, with no additional out of pit emplacement areas in the proposed Project.

5.1.3 Construction Activities

Construction: Construction and associated activities associated with the Project will impact 104ha.

- Road Diversions and Upgrade. The Project includes the construction of a rail overpass for road traffic adjacent to the existing level crossing where Hebden Road crosses the Main Northern Rail Line. Due to the anticipated increase in future train movements on the Main Northern Rail Line as a result of anticipated western coal expansions, the purpose of the proposed rail overpass construction is to improve traffic flow and reduce traffic hazards by eliminating the potential for traffic to queue back onto the New England Highway.
- Further to the east of the Main Northern Rail Line, Hebden Road crosses over Bowmans Creek via the single lane Bowmans Creek Bridge. As part of the Project, Mount Owen proposes to construct a new bridge to allow for two-way traffic movements. The purpose of the new bridge is to provide further road traffic safety improvements.
- Rail Transportation. Mount Owen will continue to utilise the existing Mount Owen rail spur that currently services the Mount Owen Complex. In addition, Mount Owen is seeking approval for the provision of an additional rail line and northern turn-out west of the existing Mount Owen rail spur. The existing rail spur would be used as a park-up area for Glencore trains that are not in service.
- The Hebden Road works disturbance area also includes a small portion of Swamp Creek that is impacted by the upgrade of a non-public road that will be used during construction.
- Modifications and upgrades to the Mount Owen water management system, including run-off from disturbed areas and clean water diversions, these are show on Map 1-1 slightly to the east of the current North Pit.

Other works are being proposed for the Project but have no impact on the landscape as these activities are wholly within the current approved mining disturbance:

- Upgrades include the expansion of the existing product stockpile and improvement to the coal handling functionality of the stockpile;
- Upgrades to the Mine Infrastructure Area (MIA) including increased capacity at the existing heavy vehicle workshop and fuel farm and replacement of associated site services, such as the raw water system, to meet current best practice standards;
- Maintenance of the use of the M-series conveyor to transport ROM coal to the Bayswater and Liddell Power Stations and as part of this Project, seek approval to transport ROM coal and crushed gravel to Liddell Coal Operations and the RCT via existing infrastructure; and
- Maintenance of the existing Ravensworth East crushing facility is proposed to be utilised to process the gravel material from overburden removed from the Mount Owen Complex.

To improve operational efficiencies and management of the Mount Owen Complex operations, Mount Owen also seeks a single development consent which will include the continued Mount Owen operations and the approved operations at Ravensworth East Mine.

5.2 Proposed Timeframes and Staging

5.2.1 Mining Activities

Mount Owen currently operates the Mount Owen North Pit under its current approval and mining will continue in the existing approved pit shell until 2016.

Should the Project be approved, mining, and land disturbance will extend into the proposed Disturbance Area after 2016.

The Project's mine closure and final rehabilitation for both Ravensworth East and the North Pit Continuation are planned for post 2030. It is expected final landform rehabilitation will take approximately 24 months.

5.2.2 Construction Activities

It is anticipated that, should the Project be approved, construction activities would nominally be undertaken during 2016 and 2017.

The construction activities would be approximately 12 to 18 months duration and be completed by the end of 2017.

The construction tasks that cause land disturbance include:

- A northern rail line turn-out and new rail line;
- A Hebden Road overpass over Main Northern Rail Line;
- A New Hebden Road bridge crossing over Bowmans Creek;

5.3 Assessing Potential Harm

5.3.1 Direct Impacts

In accordance with OEH (2011) guideline requirements, this section considers the potential impact on Aboriginal places and/or objects (archaeological sites), and the potential impact on the range of cultural values associated with the Project Disturbance Area and specific places within it, if the Project is approved.

Two (2) additional isolated artefacts were located in the 21 hectares assessed for this addendum, which will be impacted if the Project is approved. The additional 2 isolated finds to be harmed are of low archaeological and cultural significance.

The primary changes to the Aboriginal Archaeological Values Assessment are:

- The Proposed Disturbance Area has been expanded by 21ha to accommodate mine design changes associated with the Proposed North Pit Continuation.
- Five additional isolated finds were recorded during the 2014 survey (MOCO IF21 to MOCO IF-25), of which 2 sites being recorded in the proposed additional disturbance area.
- As a result of these new site recordings, the archaeological surveys associated with the Project (2012 and 2014) have recorded 39 sites: 11 artefact scatters, 25 isolated finds and three extensions to previously recorded sites.
- In addition, there are three previously recorded sites within the Proposed Disturbance Area as listed in the 2012 Aboriginal Archaeological Values Assessment.
- All 5 isolated finds recorded in 2014 are assessed as having low scientific values as they are likely to represent displaced artefacts without association with further artefacts or intact archaeological contexts.
- Of the 42 sites that are addressed in the 2014 Aboriginal Archaeological Values Assessment (39 newly recorded and three previously recorded), the proposed works associated with the Project will directly impact 34 sites while eight sites will be avoided as they are located outside of the Proposed Disturbance Area.
- The sites that will be avoided are: MOCO IF-3, MOCO IF-4, MOCO IF-6, MOCO IF-16, MOCO IF-17, MOCO IF-23, MOCO IF-24 and MOCO IF-25.

The updated OzArk (2014) Aboriginal Archaeological Values Assessment provides full details of the changes to the archaeological values, and the how the proposed impacts will affect those values.

5.3.2 Indirect Impacts

The Project may also result in indirect impacts to Aboriginal cultural heritage values. The indirect impacts identified by the RAPs included:

- Difficulty in remembering the landscape as it was prior to mining,
- Difficulty for Wonnarua people in accessing much of the land in the Hunter Valley due to private ownership and/or mining,
- Regardless of the current condition and/or status of the land in question, Wonnarua people still feel a direct connection to the country of their ancestors, which would be further disrupted by more mining,

- The predicted direct and indirect impact on the Aboriginal cultural heritage values of the Project Disturbance Area add to the cumulative impact of mining development on the cultural heritage resource of the upper Hunter Valley.

The Project team did however receive feedback of positive indirect intergenerational impacts from this ACHA process where it has allowed stakeholders to involve themselves in detailed archaeological and cultural surveys, discussions with family members and Elders to draw out knowledge which may have not previously been known, and to present those cultural heritage values in reports written by them.

Mount Owen also received a number of positive statements from the knowledge holder groups who have been able to involve community members and elders who would not normally be involved in archaeological or cultural surveys (due to age or infirmity). This process facilitated those peoples involvement in this ACHA.

5.3.3 Cumulative Impacts

Though the Project has been designed to avoid harm wherever possible (particularly to waterways) and the archaeological significance of sites within the Project Disturbance Area is low, if approved, the Project's impacts do contribute to the cumulative loss of Aboriginal sites within the local area, and the region more generally.

The RAPs have stated that '*it is becoming increasingly harder for some of our people to remember what the original landscape looked like after the open cut mining has passed through the landscape, because of the collective impact*'

The RAPs are seeking to play an active role in the outcomes of existing and further land use and managing the landscape for conservation and intergenerational outcomes.

Mount Owen acknowledges that the Project will directly impact 34 Aboriginal sites within the 485 hectares of disturbance. In response to the direct and cumulative impact, Mount Owen has considered the RAPs views regarding cultural heritage values, care and control of that resource and future management measures.

Section 7 shows how the Project has considered the findings of earlier cultural heritage studies as well as this ACHA to develop management measures to mitigate harm have been incorporated into the design of the Project.

The intergenerational, conservational and research management measures have been prepared and presented in **Section 8** to respond to the RAPs.

5.4 Justification of objectives

5.4.1 Objectives

The Project objective is to maximise resource extraction within the Mount Owen Complex’s mining tenements and previously disturbed and approved mining areas, thereby extending the mine’s economic life and providing ongoing employment for the existing workforce.

The Project has undergone detailed environmental assessments and review options, alternatives and strategies to minimise the environmental and social impacts of the project.

The Project aims to avoid some of the known sites in both the design of the mining disturbance footprint, and in the detail of the layout and the construction of the infrastructure and the avoidance of disturbance to Bettys and Bowmans Creek.

Mining is the largest land use within the local area surrounding the Project Area and all mining and infrastructure for the Project is on Mount Owen owned land.

The Project presents opportunities to:

- achieve improvements to public road safety;
- improve efficiency in rail movements; and
- achieve effective utilisation of existing infrastructure.

The Project will not alter operating hours, production levels or train movements but allow for the ongoing and efficient use of its significant existing and approved infrastructure.

5.4.2 Benefits of proposed Project

Whilst it is acknowledged that the Project will have environmental and social impacts, including impacts on Aboriginal cultural heritage, Mount Owen has endeavoured to minimise these impacts through its design and proposed mitigation and management measures, which will be implemented if the Project is approved.

The Project will provide significant benefits at a local, regional, State and national level including:

- Allowing the extraction of additional 92Mt of ROM coal through mining a southern extension of the existing Mount Owen North Pit with resulting royalty revenue to the State Government;
- Overburden will be emplaced within existing mining voids and tailings emplacement areas in the Mount Owen North Pit and Ravensworth East mine;
- The mine is able to create a better final landform for closure with a combined Mount Owen and Ravensworth East profile and to be used post mining for activities such as biodiversity enhancement of the existing State Forest and other vegetation and agriculture;
- The Project will be offsetting ecological impacts, resulting in expansion of existing conservation areas;
- Continued direct employment of a workforce of up to 920 and indirect employment of additional personnel and suppliers in supporting the ongoing operations for the North Pit Continuation and Ravensworth East Mine;
- Creation of approximately 330 additional construction jobs (peak) over the 18 month construction phase of the Project with a the associated contribution of additional employment generation during the construction phase (both direct and indirect);
- Approximately $150 million of direct capital spent on the Project; and
- The associated taxation and royalty revenue stream flowing to the NSW government over the life of the Project.

6 Avoidance of harm

6.1 Project Rationale

OEH (2011) guidelines state that an ACHA report includes the following:

> *'Justification for any likely harm, including a discussion of any alternatives considered for the proposal. This must demonstrate how all feasible options to avoid or minimise harm were considered'.*

Any Aboriginal cultural heritage impacts and issues of the Project that were identified through engagement with stakeholders, including the RAPs during the assessment process and in earlier area cultural heritage studies have been considered and where justified incorporated in the Project's final recommended designs.

Mount Owen presented information on Project rationale to the RAPs during all stages of the ACHA consultation process, and undertaken ongoing review of designs.

Mount Owen in developing the footprint and the disturbance of the proposed Project has considered mining options, layouts, overburden emplacements and infrastructure arrangements to optimise the Project's final design consideration the constraints and the impacts.

This section details how a number of factors have been considered and incorporated into the designs that limit or avoid harm to aboriginal areas, places or features considered important to the RAPs regarding the local landscape.

6.2 Opportunities to avoid impact

6.2.1 Mine Footprint

Mount Owen proposes to continue mining operations beyond the current approved Mount Owen North Pit shell to the south, disturbing approximately 381 hectares; in addition approximately 104 hectares would be disturbed for proposed infrastructure as shown in Map 1-1.

The mining footprint is constrained by lease, ownership, previously mined voids, and mining over the existing Integra underground but its final design, if approved, will achieved these outcomes:

- The mine design will meet the Project objectives;
- The mining area will not encroach to the east to the State Forest or any known high significance Aboriginal scientific or cultural site in the mining footprint;
- The footprint will remain on Mount Owen owned land and mining tenements;
- The proposed mining area will not damage any existing water courses. Bettys Creek was approved to be disturbed and was diverted after the 2004 Mount Owen existing DA 14-1-2004;
- The entire Project's waste emplacement and tailings management uses only the current disturbed mining areas to reduce the impact and assist in final landform shaping and design;
- It is proposed that rehabilitation for the Project will be undertaken progressively using practices in accordance with the existing approved Landscape Management Plan for the Mount Owen Complex, which would be updated, should the Project be approved;
- The Project will undertake an integrated approach to the rehabilitation of all disturbed areas within the Project area to provide for an improved final landform, enhance habitat corridors, and to provide for ongoing sustainable land use within the Project area;
- The mining area remains greater than 200m from the high bank of Main Creek.

6.2.2 Additional 21 hectares

The additional 21 hectares that are the subject of this addendum are to the east of the North Pit Continuation and enable an additional 4Mt to be extracted and an additional 6-12 months of employment for the 660 employees. The area affected is located high in the topography and away from any offset land, waterways and known areas of Aboriginal significance.

7 Recommendations

As discussed in detail in **Section 5**, the proposed Project will directly impact 34 archaeological sites in the Project Disturbance Area if approved.

The Project will (may) also result in indirect impacts on Aboriginal cultural heritage values and add to the cumulative loss in cultural heritage in the Hunter Valley.

The Aboriginal cultural heritage management process consulted with the RAPs to seek input and then feedback into the development of management options and recommendations should the Project be approved or not approved.

For the Project, all Aboriginal registrants were afforded opportunities to identify mitigation and management, care and control considerations and intergenerational equity options to inform the consolidated management options presented in this ACHA report.

The management recommendations and statement provided by the WLALC and recommendations provided through workshop discussions with RAPs who identified historic and contemporary attachments to the area in the ACHA consultation process are included.

The PCWP, WP (Nation) and WTC provided to Mount Owen their own set of management measures for consideration and inclusion in this ACHA report.

These recommendations also consolidate the scientific findings and recommendations in the Aboriginal Archaeological Values Assessment Report (see Appendices (**Section 9**)).

7.1 Mount Owen's Management Measures

As there was no change to the cultural values input from the Aboriginal people involved in the 2013 ACHAR and the 2014 addendum, the following management recommendations remain unchanged from the 2013 ACHM ACHAR. As noted in Section 9.1, the potential grave site has been determined not be a grave and accordingly no further historical heritage works or any other management actions are proposed.

The Cultural Heritage Management and Conservation Measures have been developed from the management and conservation measures proposed by RAPs and Knowledge Holder groups during the Aboriginal Cultural Heritage Assessment undertaken for the Mount Owen project and have been derived by assessing each and every RAPs management and mitigation suggestions.

By providing common themes to the RAPs management and mitigation suggestions, Mount Owen is better able to review and respond to the RAPs care and control, conservation and intergeneration equity recommendations.

The management measures are to be undertaken by Mount Owen in consultation with the proposed Cultural Heritage Working Group to manage the unavoidable impacts of the project progressing.

The Cultural Heritage conservation programs have been proposed in recognition of the highly significant cultural heritage locations found in the landscape surrounding the Project Area, and in recognition of the cultural heritage values associated with these areas that have been identified through the ACHA process.

The management measures have been split into:

- Proposed On-Site Cultural Heritage Management Measures
- Proposed Off Site Cultural Heritage Conservation Measures

Mount Owen proposes management measures which address specific RAP derived issues. Mount Owen have drawn out the consistent themes from the RAPs and have developed measures to be undertaken and managed by the Mount Owen operations team which address these key themes.

Mount Owen will develop a program of conservation measures based on the following recommendations:

Proposed On Site Cultural Heritage Management Options			
	Action No	**Action Item**	**Mount Owen Proposed Management Measure**
Aboriginal Cultural Heritage Management Plan (ACHMP)	R01	Update ACHMP	The existing Mount Owen Aboriginal Cultural Heritage Management Plan (ACHMP) will be reviewed for the Project within 12 months of Project Approval to outline all Aboriginal heritage management measures for the Project, responsibilities of all parties and the timeframe for required heritage works. The ACHMP will include a staged approach to the required research and salvage works to ensure that areas required for construction are completed as a priority.
	R02	Heritage Management Protocols	Mount Owen shall consult with the RAPs on matters raised in this ACHA, in order to better understand where there may be changes or improvements to existing cultural heritage management mechanisms and protocols. Any changes or modifications to protocols will be incorporated in the revised Mount Owen ACHMP
	R03	Consultation in ACHMP Management Measures	Encourage active participation of all RAPs to inform the stages of Aboriginal cultural heritage management; which will include participation in the development, implementation and review of Aboriginal Cultural Heritage management measures as per the revised ACHMP. Seek to establish an Aboriginal Cultural Heritage Working Group within six months of project approval to include representatives of the Traditional Owner groups, the RAPs and the Wanaruah LALC. This Working Group would work with Mount Owen and assist in monitoring and making recommendations on matters of culture heritage and the implementation of the ACHMP. Members of the working group should be elected by the RAPs and may be: (1) member of the Wonnarua People (Nation) (1) member of the Wonnarua Traditional Custodians (1) member of the Plains Clan of the Wonnarua People (1) member of the Local Aboriginal Lands Council (1) member of the Project's RAPs not aligned with the above groups
	R04	Bi Annual Work Group Site Meetings	Seek to establish a regular meeting for engaging with the RAPs through the Working Group, to discuss Project status and cultural heritage matters and intergenerational equity outcomes related to the Project. The meeting will include an opportunity for Walk on Country. The ACHMP will include provision for the Site Meetings which may include the following Agenda Items: 1. Presentation of previous six months ACH management performance; 2. Presentation and discussion of next 6 months ACH management; 3. Update of land management and rehabilitation completed during the period 4. Field Visit including Conservation and Rehabilitation Areas. The meetings shall consider the inclusion of a process for monitoring and measurement, including the ongoing recording and reporting on Aboriginal cultural heritage conservation outcomes
	R05	ACHMP Dispute Resolution process	The revised ACHMP will include specific provisions regarding ongoing engagement with the RAPs and would include mechanisms for dispute resolution and communications protocols.
	R06	Recognition of Cultural Values in Site Induction Material	Mount Owen will revise its onsite induction program within 12 months of project approval being granted to include material to raise awareness of Aboriginal cultural values of the Project Area and local area more generally. The induction material will positively message the Aboriginal Cultural Heritage Values of the area. The induction materials and content will be developed in consultation with the Working Group

Survey, collection and analysis	R07	Survey, collection and Analysis	Salvage (excavation, analysis and collection) as per the recommendations of the OzArk Archaeological Values Assessment Report for the salvage of the 32 sites to be harmed within the Project Disturbance Area. See Section 10.4 of the OzArk report - Management and Mitigation of Recorded Aboriginal Sites.
	R08	Discovery of previously unknown cultural heritage items	Mount Owen agrees to follow all relevant NSW Government guidelines regarding the location of human skeletal remains. Mount Owen will apply the precautionary principle to the development of management measures for the Project Disturbance area. This approach will include the development of culturally appropriate management measures for the management of human remains, should this occur during the Project life. Protocols and approach will be developed in consultation with RAPs and updated in the revised ACHMP
	R09	Recording of Archaeological Sites	Sites identified in the Mount Owen ACHA have been recorded on sites cards and submitted to OEH. The ACHMP will be revised to include the new sites identified in the Mount Owen Continued Operations Aboriginal Archaeological Values Assessment Report completed for the Project.
Care and Control	R10	Care and Control Measures regarding Aboriginal Objects	Care and control management measures will be developed and included in the ACHMP for Aboriginal objects recovered through the Archaeological research and salvage program implemented for the Project and for long term storage of artefacts recovered from previous research and salvage programs. The care and control management measures will have regard to cultural considerations. Care and control management measures will include provision for: • Interim storage during research and salvage program; • Artefact analysis as recommended in the Aboriginal Archaeological Values Assessment report for the Project • Development of a long term care and control strategy – building of an artefact storage facility at the Yorks Creek VCA
	R11	Yorks Creek Artefact Storage Facility	Mount Owen will construct a suitable fit for purpose artefact storage facility to store cultural heritage artefacts recovered during previous research and salvage programs, and for items recovered for the Project. The preferred location for the storage facility will be in the Yorks Creek VCA, subject to an agreed modification of the existing Plan of Management for the VCA. The facility will provide suitable shelving and storage to allow for the curation of artefacts to be stored and accessible to researchers and RAPs. The artefact storage facility will be constructed within 2 years of approval. A protocol for the use of the Yorks Creek VCA artefact storage facility will be developed as part of Mount Owen ACHMP including accessibility and use of the facility by researchers and RAPs..
	R12	Repatriation of artefacts from Mount Owen Complex	Cultural heritage artefacts recovered from the Mount Owen complex area during previous archaeological surveys and salvage programs that have been previously analysed and catalogued, will be returned to the site to be stored in the new artefact storage facility. Artefacts recovered for this Project will be suitably categorised and labelled to allow for future research or repatriation to the landscape. Artefacts previously recovered have been analysed and indexed and will be placed appropriately within the new storage facility.
	R13	Sites Not To Be Impacted	Mount Owen will implement the Aboriginal archaeological management measures program for sites in the Project Area that will not be impacted by the Project as recommended in the Aboriginal Archaeological Values Assessment report for the Project. During construction there will be protective fencing of the sites outside the project disturbance envelope that were identified by the OzArk Aboriginal Archaeological Values Assessment. These measures will be further outlined in the updated ACHMP.

Conservation and Protection	R14	Yorks Creek VCA and new facilities	The Yorks Creek area contains of VCA of 28.5ha that was consented in 1998. The VCA is surrounded by a larger area that was identified as an area of cultural significance in 2005. The Yorks Creek Cultural Landscape Restoration Project involves the restoration of the Upper Reaches of Yorks Creek covering approximately 212 ha. The project commenced in 2005 and involved a partnership between Mount Owen and the local Aboriginal community. Mount Owen will work with the Working Group to develop appropriate improvements to the Yorks Creek VCA. Such improvements may include a formed access road, the establishment of a car parking area, an artefact storage facility with rainwater tank and toilets with tables and benches, and signage to identify the extent of the conservation area and its purpose. Mount Owen will commit funding to the establishment of such facilities.
Additional Research Programs	R15	Research and Management Program	Mount Owen will support a project to study the archaeological values in areas that are outside of the current proposed Disturbance Area, but located within the Project Area. Such a study would focus on the 50 AHIMS registered sites in the Project Area and involve survey in order to ground-truth the location and condition of all previously recorded sites. The aim of this survey would be to recommend procedures to ensure that these sites are preserved in the landscape. In most cases, this preservation would involve fencing and signage (if not already in place), although if erosion threatens a site, broader erosion controls / sandbagging of banks etc may be needed to ensure the site's preservation. Mount Owen will commit funding to review and monitor these sites, including and remediation activities, works managed through Mount Owen's revised ACHMP.
Intergenerational Equity	R16	Annual Cultural Heritage Open day	Mount Owen will also host an annual open day for our RAPs to attend the Yorks Creek VCA and spend the day on the land, and use the facilities provided in the VCA. Possible activities to be considered for the day may include:: • Teaching and learning outcome through Elders; • Visitation to rehabilitation and conservation areas; • Use of the artefact storage facility; • Update on progress of cultural heritage management programs for all RAPs; • Walks on country, including conservation sites, rehabilitation and 'song lines' owned by Mount Owen

Table 7-1: Proposed 'On Site' cultural heritage management measures to be adopted by Glencore for the Mount Owen Continued Operations Project.

Proposed Off Site Cultural Heritage Management Measures			
Action Area	**Action No.**	**Action Item**	**Mount Owen Proposed Management Measure**
Care and Control	R17	Bowmans Creek Bridge construction protocol	The ACHA for the Project identified that some knowledge holder groups believe that Bowmans Creek has significant cultural value. Mount Owen's bridge design shall span the low flow channel of Bowmans Creek. Mount Owen will consult with the Working Group on appropriate and practical cultural protocols to be adopted during the construction of the bridge, piers and other infrastructure in this area.
	R18	Massacre Site Surveys	Mount Owen through research studies recommended in this ACHA, better understand the history of the area and conflict with settlers and the Aboriginal community in the local area. Mount Owen will support funding of a memorial story board or other suitable marker, located in an appropriate location. The wording of any plaque shall be developed through the Working Group.
Conservation and Protection	R19	Landscape Video and 3D model	Mount Owen will investigate the potential for a 3D digital model of the Project Area to be developed to illustrate the cultural sites in the project area landscape for intergenerational equity. This will be undertaken in consultation with the Working Group and will include layers of appropriate cultural knowledge and values across the landscape.
	R20	3D scan Bowman's Creek	Mount Owen will undertake a 3D scan of area of the high significance identified in the ACHAR. Mount Owen in consultation with the RAPs shall review and recommend the scan area.
	R21	Naming of Infrastructure	Mount Owen will consult with the RAPs and other stakeholders including Singleton Shire Council in the naming of infrastructure works on Hebden Road and Bowmans Creek. Mount Owen supports the naming of the expanded Bowmans Creek Bridge on Hebden Road to reflect the cultural importance of the area, and reflecting traditional aboriginal names from the area
	R22	Yorks Creek VCA and new facilities	The Yorks Creek VCA Plan of Management includes the ongoing maintenance of the area. Competent RAPs groups will be given opportunity to tender for carrying out these works. Mount Owen will commit funding to help facilitate this outcome in consultation with the Working Group. The framework to manage such a process will be included in the revised ACHMP.
	R23	Bettys Creek	The portion of Bettys Creek that lies within the existing Bettys Creek Habitat Management Area is managed by Glendell Mine pursuant to the existing development consent.
	R24	Potential Grave site	Subsequent to the November 2013 ACHAR, the New South Wales police investigated the potential grave site. The NSW Police investigation concluded that 'There does not appear to be any disturbance in the soil or any other items located to suggest this area is a grave site' (NSW Police Force Forensic Services Group 2014). Based on NSW Police investigation conclusions that the site is not a grave, recommendation 'R24', will no longer forma part of the future management measures.
	R25	Cultural Site Conservation	In the non-disclosed reports, the relevant Knowledge Holders have indicated that there are areas of high cultural value located in the vicinity of Mount Owen but are outside the Project Area. Mount Owen will engage in consultation with the relevant Knowledge Holders regarding these areas to determine appropriate management and / or conservation outcomes.
	R26	Travelling Stock Route (TSR)	There is a TSR in the Project Area that was set aside as part of the Mount Owen DA 14-1-2004 as a biodiversity offset. Mount Owen is currently discussing the long term ownership of this TSR with the Livestock Health and Pest Authority. Mount Owen will provide the RAPs, as requested, with any information regarding any proposed changes to land use or land ownership from its current status as Crown Land.
	R27	Landform and revegetation involvement	Mount Owen will consult with the RAPs on the final landform, flora and fauna corridors, water courses and revegetation strategies. Mount Owen through the Working Group and the annual Open day will update the RAPs on the progress on the landform and rehabilitation outcomes.

Additional Research Programs	R28	DVD or other Recording for Teaching Purposes	Mount Owen will provide funding toward the development of an educational DVD or reference material to record the cultural knowledge as identified in the ACHA including the cultural context and relationship to significant Creation story sites, song lines, and other significant sites in the local area.
	R29	Wonnarua Educational Material Funding	Mount Owen will support programs that enable information gained through the research programs noted in these recommendations to be prepared into education materials. These may be for use by Wonnarua, used to assist in educational material for schools, or provide opportunities for publishing of research articles.
Intergenerational Equity	R30	Education - Cultural Related Areas	During the life of the Project, Mount Owen will offer assistance towards three trainee scholarships (up to three years in duration) to be undertaken in culture related training areas. The training and education opportunity will include opportunities which may arise from vocational based learning including graduate and postgraduate studies.
	R31	Wonnarua lore and custom Training	Mount Owen will commit to funding and support for specific Wonnarua lore and custom training. The identified training programs in the ACHA process were stone tool making or possum skin cloaks as well as other possible programs.
	R32	St Clair Mission facilities	Mount Owen will provide support for the ongoing development of the St Clair facility in line with the existing Plan of Management.

Table 7-2: Proposed 'Off Site' Management Measures.

7.2 Management Measures - No Project Approval Scenario

Should the proposed Project not be approved, it has been confirmed that future potential impacts will not occur, and there would be no risk to the cultural values and archaeological sites identified in this ACHAR addendum.

Mount Owen would continue to monitor and manage identified Aboriginal archaeological and cultural heritage values through its existing management plan(s).

8 Bibliography

Aborigines. Replies to a Circular Letter, addressed to the Clergy, of all Denominations, By Order of the Select Committee on the Condition of the Aborigines. Ordered, By the Council, 31st October 1846. Sydney: Printed by W.W. Davies, At the Government Printing Office.

AMBS Consulting (1997) Archaeological Test Excavations of Aboriginal Sites at Bettys Creek, Mount Owen Mine, Hunter Valley, NSW. Report to Mount Owen Mine, BHP Coal Australia in four volumes. December 1997.

Australia ICOMOS (1999) The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance Australia ICOMOS Incorporated Burwood

Australia ICOMOS (2013) Draft Practice Note: Understanding and Assessing Cultural Significance Australia ICOMOS Incorporated Burwood

Australian Department of Sustainability, Environment, Water, Population and Communities, (2011) Australian State of Environment Report (SoE), Australian Government Minister for Sustainability, Environment, Water, Population and Communities, Canberra.

Australian Museum (2010) Morrison Collection: boomerangs from the Hunter Valley region, viewed 26 June 2013, <http://australianmuseum.net.au/Morrison-Collection-Boomerangs-from-the-Hunter-Valley-Region>

Brayshaw, H (1986) Archaeological Survey of Glennies Creek Coal Authorisation Areas 81 and 308, Hunter Valley, NSW. Report to Southland Coal Limited.

Brayshaw, H (1987) Aborigines of the Hunter Valley: a study of colonial records, Scone and Upper Hunter Historical Society, Scone.

Breton, Lieut. (1833) Excursions in New South Wales, Western Australia, and Van Diemen's Land, during the years 1830, 1831, 1832, and 1833. Viewed 3 July 2013 <http://www.newcastle.edu.au/Resources/Divisions/Academic/Library/Cultural%20Collections/pdf/breton.pdf>

Canning, S and Sutherland, F (2013) Mount Owen Continued Operations Project. Aboriginal Cultural Heritage Assessment Report and Consultation Records. A report to Glencore, Ravensworth East, NSW.

Cunningham, A (1825) Journal 29/3-31/5/1825 in Brayshaw, H 1987 Aborigines of the Hunter Valley: a study of colonial records, Scone and Upper Hunter Historical Society, Scone.

Daly, M & Brown, J (1964) The Hunter Valley Region NSW Hunter Valley Research Foundation, Newcastle.

Dangar, H (1824) Field Book 220 2/4860 and Field Book 221 2/4861 in Brayshaw, H 1987 Aborigines of the Hunter Valley: a study of colonial records, Scone and Upper Hunter Historical Society, Scone.

Dean-Jones (1992) Archaeological Report Subsurface Analysis Swamp Creek, Mount Owen Mine Site.

Dean-Jones and Mitchell (1993) Dean-Jones and Peter Mitchell. Environmental modelling for archaeological potential in the central lowlands of the Hunter Valley. Report to National Parks and Wildlife Service.

Department of Environment and Conservation (DEC) (2005) Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation. Sydney.

Department of Environment Climate Change and Water (DECCW) NSW (2010) Aboriginal cultural heritage consultation requirements for proponents 2010: Part 6 National Parks and Wildlife Act 1974. Sydney.

Dunne, A (2012) From Brook to Broke: A History of Broke Ford. Xstrata Coal.

Dyall, L (1982) A Preliminary Assessment of Aboriginal Relics on the area of Foybrook Power Station Project. Report for ELCOMM.

Ebsworth. H .T (1826) A letter book, kept at Sydney and Port Stephens ML MS B852 in Brayshaw, H 1987 Aborigines of the Hunter Valley: a study of colonial records, Scone and Upper Hunter Historical Society, Scone.

ERM (2002) Ravensworth East Archaeological Investigation. Report to Coal and Allied Pty Limited.

ERM (2009) Integra Underground Coal Project. Heritage Assessment. Report to Integra Coal Operations Pty Limited.

Fawcett, J W (1898) 'Notes on the customs and dialect of the Wonnah-Ruah', Science, August 22, pp/ 152-154 and 180-181 <http://www.newcastle.edu.au/resources/divisions/academic/library/cultural%20Collections/pdf/fawcett1898.pdf>

Fourmille, H (1989) Who Owns the Past? Aborigines as Captives of the Archives [online]. Aboriginal History, Vol. 13, 1989: 1-8.

Gray, A (2010) St Clair Mission, viewed 26 June 2013 <http://australianmuseum.net.au/St-Clair-Mission>

GSS (2008) GSS Environmental Pty Limited. Aboriginal Cultural Heritage Management Plan for

the Mt Owen Complex. Report to Xstrata Mt Owen Pty. Limited.

Heritage Office (HO) and Department of Urban Affairs and Planning (DUAP) (1996) Regional Histories: Regional Histories of New South Wales. Sydney

Historical Records of Australia (HRA) 1826 Series 1 Volume XII

Horton, D (ed.) (1994) The encyclopaedia of Aboriginal Australia, Aboriginal Studies Press for the Australian Institute of Aboriginal and Torres Strait Islander Studies, Canberra.

Howe, J (1819) Windsor Papers ML MS 106 in Brayshaw, H (1987) Aborigines of the Hunter Valley: a study of colonial records, Scone and Upper Hunter Historical Society, Scone.

Koettig, M (1990) Regional Study of Heritage Significance Central Lowlands Hunter Valley', Electricity Commission Holdings, July 1990, Vol 3: Assessment of Aboriginal Sites

Kovac, M. and Lawrie J.W (1991) Soil Landscapes of the Singleton 1:250,000 Sheet. Soil Conservation Service of New South Wales, Sydney.

Macquarie University (2009) Australian Aboriginal tribes, viewed 26 June 2013, <www.libmq.edu.au/all/journeys/related/tribes.html>.

Miller, J (1985) Koori: a will to win, viewed 26 June 2013, <http://www.wonnarua.org.au/images/about%20the%20wonnarua%202.pdf>.

Milliss, R (1992) Waterloo Creek: The Australia Day Massacre of 1838, George Gipps and the British Conquest of New South Wales. UNSW Press, Sydney.

Mitchell, P (2002) Aspects of the geomorphology of the Glendell Coal Lease, Ravensworth, Hunter Valley, NSW. In Umwelt (2013b) Appendix B.

Morrison Collection: canoes, spears and shields, viewed 26 June 2013, <http://australianmuseum.net.au/Morrison-Collection-Canoes>.

Needham, B (1981) Burragurra: where the spirit walked – Aboriginal sites in the Cessnock-Wollombi region of the Hunter Valley, NSW, Cessnock.

Nolan, R (2012) We want to do what they did. History at St Clair. BA (Hons) thesis, University of Sydney, Sydney

Office of Environment and Heritage (OEH) (2010) Guide to Investigating, assessing, and reporting on Aboriginal Cultural Heritage in New South Wales.

Office of Environment and Heritage (OEH) (2012) Strengthening Aboriginal Community Wellbeing Toolkit.

OzArk Environmental and Heritage Management (2013) Aboriginal Archaeological Values Assessment: Mount Owen Continued Operations near Ravensworth, Upper Hunter Valley, NSW. Report for Xstrata Mount Owen Pty Ltd.

Rappoport (2006) Edderton, 1477 Edderton Road, Muswellbrook. Conservation Management Plan. DRAFT.

Resource Planning (1991) Environmental Impact Statement Mount Owen Coal Project Hebden - New South Wales. Report for Hunter Valley Coal Corporation Pty Limited.

Resource Planning (1993) Proposed Mt Owen Extension. Archaeological survey of Bettys Creek. Report for Hunter Valley Coal Corporation Pty Limited.

Reynolds, H (1996) Aboriginal Sovereignty: Reflections on Race, State and Nation. Allen and Unwin, Sydney.

Reynolds, H (1987) Frontier: Aborigines, Settlers and Land, Allen and Unwin, Sydney

Roberts, S.H. (1970) The Squatting Age in Australia 1835-1847, Melbourne University Press.

Shaw, A.G.L. (1960) The Story of Australia, Faber & Faber, London

Silcox, R (1996) Archaeological Assessment of alternative routes for proposed Haul Road, Glendell Colliery, Hunter Valley. Report to PACRIM Environmental Pty Limited.

Tindale, N.B (1940) 'Map showing the distribution of the Aboriginal tribes of Australia' [cartographic], in Digital Collections Maps, National Library of Australia, viewed 3 July 2012, >http://www.nla.gov.au/apps/cdview/?pi=nla.map-gmod91-e>.

Tindale, N. B (1974) Aboriginal tribes of Australia: their terrain, environmental controls, distribution, limits, and proper names. Australian National University Press. Canberra.

Turner, J (1995) Historical Themes of the Shire of Muswellbrook, unpublished.

Umwelt (Australia) Pty Ltd (2011) Ravensworth Mine Complex Aboriginal Cultural Heritage Management Plan: Volume 1- Aboriginal Cultural Heritage Values

Umwelt (Australia) Pty Ltd (2004) Aboriginal Archaeological Assessment - Glendell Open Cut Mine. Report to Glendell Joint Venture.

Umwelt (Australia) Pty Ltd (2008) Archival Recording of Heritage Items, Glendell Mine. Prepared for Xstrata Mount Owen.

Umwelt (Australia) Pty Ltd (2011) Ravensworth Mine Complex Aboriginal cultural heritage management plan: Vol. 1 – Aboriginal Cultural Heritage Values, viewed 1 July 2013, <http://www.xstratacoalravensworth.com.au/EN/Publications/Management%20Plans%20Actual/Aboriginal_Cultural_Heritage_Management_Plan_(Vol_1)_Rav_Mine_Complex.pdf>.

Umwelt (Australia) Pty Ltd (2005) Research Design and Methodology to Accompany a Section 90 Consent Application for Aboriginal Sites within the Glendell Open Cut Mine Project, Singleton, NSW. Report to Hunter Valley Coal Corporation.

Umwelt (Australia) Pty Ltd (2012a) Part 1 – Bettys Creek Salvage Program, Mount Owen Extension Area Surface and Subsurface Salvage under Section 90 Aboriginal Heritage Impact Permit #1762. A report for Xstrata Mount Owen

Umwelt (Australia) Pty Ltd (2012b) Part 2 – Bettys Creek Salvage Program, Mount Owen West Dump Area Surface and Subsurface Salvage under Section 90 Aboriginal Heritage Impact Permit #2131. A report for Xstrata Mount Owen.

Umwelt (Australia) Pty Ltd (2013a) Part 3 – Bettys Creek Salvage Program, Mount Owen Operations Area Surface and Subsurface Salvage under Section 90 Aboriginal Heritage Impact Permit #2267. A report for Xstrata Mount Owen.

Umwelt (Australia) Pty Ltd (2013b) Part 4 – Bettys Creek Salvage Program, Glendell Mine Surface and Subsurface Salvage under Section 90 Aboriginal Heritage Impact Permit #2267. A report for Xstrata Mount Owen.

Umwelt (Australia) Pty Ltd (2013) Historic Heritage Assessment: Mount Owen Continued Operations Project (Draft). A report for Xstrata Mount Owen Pty Ltd

9 Appendices

9.1 Potential Historical Grave

Subsequent to the November 2013 ACHAR, the New South Wales police investigated the potential grave site. The NSW Police investigation concluded that 'There does not appear to be any disturbance in the soil or any other items located to suggest this area is a grave site' (NSW Police Force Forensic Services Group 2014). No further cultural heritage management actions are required.

Umwelt first visited the potential grave and former house site, located within the Project Area on 1 August 2012 after the site had been identified by Glencore representatives during exploration activities.

The potential grave site comprised a 2.5 metre by 0.7 metre alignment of stones orientated east to west located approximately 140 metres to the north of the former house site. The former house site is likely the remains of an early twentieth century farmstead or house and comprises a remnant brick chimney, a concrete slab and a number of associated plantings (oleander, citrus and peach trees).

Following the initial Umwelt site inspection at the potential grave site, it was considered that the alignment of stones had the potential to be an historical (non-Aboriginal) grave site. As such, it was proposed to undertake minor archaeological investigative works in order to try and clarify if the alignment of stones could potentially indicate the location of a grave. When the area was surveyed by the RAPs for the Project, it was agreed the alignment of stones were likely be of European origin.

An exception (from the need for an Excavation Permit) application in accordance with Section 139(4) of the Heritage Act 1977 (NSW) (the Heritage Act) to undertake the minor archaeological investigative works was subsequently applied for and endorsed (on 26 November 2012) by the then Heritage Branch (currently Heritage Division), Office of Environment and Heritage (OEH). An exception was deemed the most appropriate method of trying to establish if the stones indicated the presence of a grave without having to remove or destroy any archaeological 'relic' or deposit, or indeed disturb a potential grave.

The investigative works under the exception were undertaken on 6 December 2012. The RAPs were also on site undertaking archaeological survey work at the time of the archaeological investigation works. The investigative works identified that the stone alignment had the appearance of what could have been a formal stone built grave memorial placed on top of a potential grave cut.

Following the minor archaeological investigative works an Excavation Permit application under Section 140 of the Heritage Act was applied for to permit further archaeological works at the site. These works were intended to confirm whether or not there were any human skeletal remains present or indeed whether there was a grave cut. The Excavation Permit (no. 2013/S140/13) was approved on 9 July 2013. The approved archaeological methodology included the involvement of a physical/forensic anthropologist (Dr Denise Donlon - University of Sydney, Sydney Medical School) and the requirement to contact the police should skeletal material be uncovered.

The archaeological investigative works were scheduled to be undertaken in early March 2014. Prior to the start of the works, the PCWP engaged a forensic anthropologist to attend the investigation. The PCWP's anthropologist (Penny McCardle, McCardle Cultural Heritage) subsequently contacted the NSW Police Force and provided them with a copy of the Mount Owen Potential Grave Site Archaeological Assessment and Research Design report (Umwelt 2013) which had been prepared as supporting documentation for the S140 Excavation Permit application.

Based on advice from McCardle Cultural Heritage and their interpretation of the Umwelt 2013 report, the NSW Police Force considered there was sufficient evidence of a death at the site to declare it to be a potential unmarked and unreported grave. As such, the NSW Police Force took control of the site and established a coronial investigation scene. They subsequently undertook the physical investigation of the site between 6 and 7 March 2014 with no involvement of the Primary Excavation Director (Tim Adams of Umwelt, as endorsed by the S140 Excavation Permit).

Delegates of the WNAC and the WTC were invited to attend the excavation. A WNAC delegate was present for the initial hour and the WTC delegates were present for both days of the Police investigation.

The NSW Police Force initially dug by hand to approximately 300 millimetres until the ground became gravelly and very hard. They then used a machine to excavate the area down to 400 millimetres depth before machine excavating two narrow trenches to approximately 1.35 metres (NSW Police Force Forensic Services Group 2014).

The NSW Police Force investigation concluded that

'there does not appear to be any disturbance in the soil or any other items located to suggest this area is a grave site' (NSW Police Force Forensic Services Group 2014).

Based on the conclusions of the NSW Police Force investigation that the site is not a grave, no further historical heritage works are proposed.



Figure 9-1: Commencement of excavations.



Figure 9-2: Completion of excavations.

9.2 Consultation Records

The following section documents the records of consultation undertaken for the Mount Owen Continued Operations Project.

9.2.1 Stage 1 - Notification of Project Change

On 16 April 2014, Mount Owen issued a letter notifying all RAPs that the Project Description had changed, and proposed that a further 21ha would be harmed. An information pack accompanied this letter which detailed the proposed changes and the methodology for a further archaeological survey of the area. An explanatory letter and information pack was also mailed to Richard Bath (OEH) AND Noel Downs (WLALC).

9.2.2 Log of Events

The following table is a log of events relating to consultation with the RAPs and other Knowledge Holder groups between the completion of the 2013 ACHAR and the conclusion of the cultural values and archaeological assessments of the 21 hectare addendum area.

Date	Consultation Type	Registered Aboriginal Party / Agency	Contact Person	Description
Jan 2014	Phone call	Department Planning and Environment	DP&E	Requesting delay to review EIS for modified mine plan, and not put the application on public display
March 2014	Meeting	Department Planning and Environment	DP&E	Notification to DP&E that a Project amendment to EIS was being assessed, adding 21 hectares of disturbance and an additional 22Mt of run of mine coal to the Project
16 April 2014	Letter	All Registered Aboriginal Parties	60 RAPs	Notification to RAP's of new Project Description and field survey + Information Pack
16 April 2014	Phone	Wanaruah Local Aboriginal Land Council	Noel Downs	Mount Owen called Noel to explain details of mail out, and the changes to the Project and the need to review the completed ACHAR for the Project
16 April 2014	Letter	Wanaruah Local Aboriginal Land Council	Noel Downs	Notification to RAP's of new Project Description and field survey + Information Pack
16 April 2014	Phone	Office of Environment and Heritage	Roger Bath	Mount Owen called OEH to explain details of mail out, and give an update on the Project and that due to a project amendment, the ACHAR would be revised
16 April 2014	Letter	Office of Environment and Heritage	Roger Bath	Notification to RAP's of new Project Description and field survey + Information Pack
16 April 2014	Phone	Wonnarua Nation Aboriginal Corporation	Laurie Perry	Mount Owen called WNAC to explain details of mail out, and the changes to the Project and the need to review the completed ACHAR for the Project
16 April 2014	Phone	Plains Clan of the Wonnarua People	Scot Franks	Mount Owen called PCWP to explain details of mail out, and the changes to the Project and the need to review the completed ACHAR for the Project
16 April 2014	Phone	Wonnarua Traditional Custodians	Des Hickey	Mount Owen called WTC to explain details of mail out, and the changes to the Project and the need to review the completed ACHAR for the Project
16 April 2014	Email	Ka-u-ma Pondee	Jill Green	Confirmation of participation in Arch Survey of Extension Area
16 April 2014	Email	Wonnarua Nation Aboriginal Corporation	Laurie Perry	Confirmation of participation in Arch Survey of Extension Area
24 April 2014	Phone	Plains Clan of the Wonnarua People	Scott Franks	Confirmation of participation in Arch Survey of Extension Area
24 April 2014	Phone	EMT Cultural & Heritage	Esther Tighe	Confirmation of participation in Arch Survey of Extension Area
24 April 2014	Phone	Kayaway Eco Culture and Heritage	Mark Hickey	Confirmation of participation in Arch Survey of Extension Area
24 April 2014	Phone	Muswellbrook Cultural Consultants	Brian Horton	Confirmation of participation in Arch Survey of Extension Area
24 April 2014	Phone	Carrawonga Consultants	Justin Matthews	Confirmation of participation in Arch Survey of Extension Area
24 April 2014	Phone	Waabi Gabinya Cultural Consultancy	Elizabeth Howard	Confirmation of participation in Arch Survey of Extension Area
27 April 2014	Email	Wonnarua Traditional Custodians	Des Hickey	Not available for participation in Arch Survey of Extension Area
28 April 2014	Email	Plains Clan of the Wonnarua People	Scott Franks	Confirmation of participation in Arch Survey of Extension Area
28 April 2014	Phone	Survey Roster Team	Gary Bernasconi	12 RAPs confirmed for Arch survey for the 29th April 2014.
28 April 2014	Phone	Muswellbrook Cultural Consultants	Brian Horton	Not available for participation in Survey of Extension Area (Late withdrawal due to injury)

28 April 2014	Phone	Carrawonga Consultants	Justin Matthews	Not available for participation in Survey of Extension Area (Late withdrawal due to insurance lapse)
28 April 2014	Phone	Waabi Gabinya Cultural Consultancy	Elizabeth Howard	Not available for participation in Survey of Extension Area (Late withdrawal due to insurance lapse)
29 April 2014		Kayaway Eco Culture and Heritage	Mark Hickey	Mark did not attend the survey or call to explain unavailability. Unable to contact by phone on survey morning.
29 April 2014	Presentation	12 RAPs on survey roster	Gary Bernasconi	8 RAPs and 2 OzArk Archaeologists shown presentation on scope, methodology and roles for revised extension area before commencing Arch survey. Reasons for proposed detention basin area near Mt Owen Orica compound were also explained and the area was surveyed for artefacts.
29 April 2014	Arch Survey	OzArk Archaeologists - Ben Churcher and Jennifer Bertolani, WNAC - 3 reps, PCWP - 3 reps, WTC 1 rep, Community - 1 rep.	Gary Bernasconi	Pedestrian Arch survey of the Extension area and proposed detention basin near Mount Owen/Orica compound.
6 May 2014	Report	OzArk provide Draft Summary of Extension Area Survey	Ben Churcher	Draft Summary provided for review and finalisation before transmission to all RAPs later this month.
6 May 2014	Email	Wonn 1	Arthur Fletcher	Letter from Arthur (via email from Suzie Worth at WLALC) expressing interest in being part of upcoming Cultural Heritage survey.
15 May 2014	Aconex	OzArk provide Final Archaeological Summary of Extension Area Survey	Ben Churcher	Final Archaeological Summary provided for transmission to all RAPs.
21 May 2014	Letter	Wonnarua Traditional Custodians	Des Hickey	Singleton Post office returns unopened (16/4/14) mail from Des's PO Box 749 (? Closed Box/check)
22 May 2014	Letter	BINK Creative Print & Design	Marc Brabander	Postal Delivery (via BINK Creative) of Archaeology Survey Summary and letter of invitation to attend site for cultural heritage values assessment for Community RAPs and Shaun Canning from ACHM on 5/6/14.
22 May 2014	Letter	BINK Creative Print & Design	Marc Brabander	Postal Delivery (via BINK Creative) of Archaeology Survey Summary and letter of invitation to attend site for cultural heritage values assessment for WTC members on 12/6/14.
22 May 2014	Letter	BINK Creative Print & Design	Marc Brabander	Postal Delivery (via BINK Creative) of Archaeology Survey Summary and letter of invitation to attend site for cultural heritage values assessment for PCWP members.
22 May 2014	Letter	BINK Creative Print & Design	Marc Brabander	Postal Delivery (via BINK Creative) of Archaeology Survey Summary and letter of invitation to attend site for cultural heritage values assessment for WNAC members.
22 May 2014	Phone	Wonnarua Nation Aboriginal Corporation	Laurie Perry	Meeting arranged for 3pm Wednesday 28/5/14 to discuss cultural heritage assessment review.
23 May 2014	Phone	Upper Hunter Heritage Consultants	Darrel Matthews	Confirmation of attending cultural values assessment on site 12/6/14
26 May 2014	Phone	Gomery Cultural Consultants	David Horton	Confirmation of attending cultural values assessment on site 5/6/14
26 May 2014	Phone	Muswellbrook Cultural Consultants	Brian Horton	Confirmation of attending cultural values assessment on site 5/6/14

27 May 2014	Email	Plains Clan of the Wonnarua People	Scott Franks	Response confirming that extension area addition will not change significance of 2013 ACHAR
28 May 2014	Phone	Breeza Plains Culture & Heritage Consultants	Terry Matthews	Confirmation of attending cultural values assessment on site 5/6/14
28 May 2014	Meeting	Wonnarua Nation Aboriginal Corporation	Victor Perry	Meeting to discuss cultural heritage assessment review for extension area.
30 May 2014	Phone	Aboriginal Native Title Consultants	John Matthews	Confirmation of attending cultural values assessment on site 12/6/14
30 May 2014	Phone	Wonnarua Culture & Heritage	Rebecca Lester	Confirmation of attending cultural values assessment on site 5/6/14
30 May 2014	Phone	Mingga Consultants	Cliff Matthews	Confirmation of attending cultural values assessment on site 5/6/14
30 May 2014	Phone	JLC Cultural Services	Jenny-Lee Chambers	Confirmation of attending cultural values assessment on site 5/6/14
30 May 2014	Phone	Wunda Cultural Consultants	Travis Matthews	Confirmation of attending cultural values assessment on site 5/6/14
30 May 2014	Phone	Deslee Talbot Consultants	Deslee Matthews	Confirmation of attending cultural values assessment on site 12/6/14
30 May 2014	Phone	Giwiirr Consultants	Rodney Matthews	Confirmation of attending cultural values assessment on site 12/6/14
30 May 2014	Phone	HVCC	Christine Matthews	Confirmation of attending cultural values assessment on site 12/6/14
2 June 2014	Phone	Hunter Valley Aboriginal Corporation	Rhonda Griffiths	Confirmation of attending cultural values assessment on site 5/6/14
2 June 2014	Phone	Wonnarua Culture Heritage	Gordon Griffiths	Confirmation of attending cultural values assessment on site 12/6/14
2 June 2014	Phone	T & G Culture Consultants	Tony Griffiths	Confirmation of attending cultural values assessment on site 12/6/14
2 June 2014	Phone	Myland Cultural & Heritage	Warren Schillings	Confirmation of attending cultural values assessment on site 12/6/14
3 June 2014	Phone	Divine Diggers	Deidre Perkins	Confirmation of attending cultural values assessment on site 12/6/14
3 June 2014	Phone	CMC	Cheryl Moodie	Confirmation of attending cultural values assessment on site 5/6/14
3 June 2014	Phone	Carrawonga Consultants	Justin Matthews	Confirmation of attending cultural values assessment on site 5/6/14
3 June 2014	Phone	Heilamon Cultural Consultants	Cliff Johnson	Confirmation of attending cultural values assessment on site 5/6/14
3 June 2014	Phone	Roger Noel Matthews Consultancy	Roger Matthews	Confirmation of attending cultural values assessment on site 5/6/14
4 June 2014	Phone	Port Stephens Tours	Mark Murphy	Confirmation of 12 passengers for bus trip tomorrow to Extension area
5 June 2014	Phone	Carrawonga Consultants	Justin Matthews	Justin Matthews unavailable for cultural heritage visit today.
5 June 2014	Phone	Hunter Valley Aboriginal Corporation	Rhonda Griffiths	Carla Saunders unavailable for cultural heritage visit today
5 June 2014	Meeting	10 Community RAPs with ACHM	Shaun Canning	Visit to Extension area and workshop regarding cultural values assessment
10 June 2014	Mail	Kawul Cultural Services	Vicky Slater	Return of mail regarding archaeological survey summary. (PO box has been closed). Arch summary and invitation to visit emailed to Vicky Slater today.
10 June 2014	Email	Ka-u-ma Pondee	Jill Green	Confirmation of attending cultural values assessment on site 12/6/14
10 June 2014	Phone	Myland Cultural & Heritage	Warren Schillings	Email request from Warren for electronic copy of the archaeological survey summary for distribution to WTC Elders. Copy was emailed back for WTC use.

10 June 2014	Phone	Myland Cultural & Heritage	Warren Schillings	Warren requested 3-4 WTC Elders attend the cultural heritage day tomorrow. Elders were welcomed depending on availability of bus seats after other WTC RAP numbers are finalised tomorrow. (Availability TBA 11/6/14).
10 June 2014	Phone	Port Stephens Tours	Mark Murphy	Confirmation of 11 passengers for bus trip to Extension area on 12/6/14
11 June 2014	Phone	Myland Cultural & Heritage	Warren Schillings	Confirmation of two more reps (DRM & Smith Dhagaans) attending cultural values assessment on site 12/6/14.
12 June 2014	Meeting	13 WTC RAPs attend cultural heritage visit	Gary Bernasconi	Visit to Extension area and workshop regarding cultural values assessment. Gordon Griffiths to report back after next WTC meeting.
12 June 2014	Email	Wonnarua Nation Aboriginal Corporation	Laurie Perry	Cultural heritage assessment arranged for two WNAC members next week (18/6/2014).
16 June 2014	Email	Wanaruah Local Aboriginal Land Council	Noel Downs	Second invite extended to WLALC members to visit 'Extension Area' for cultural heritage assessment.
16 June 2014	Email	Wanaruah Local Aboriginal Land Council	Noel Downs	Response confirming that extension area addition will not change significance of 2013 ACHAR
18 June 2014	Meeting	Wonnarua Nation Aboriginal Corporation	Laurie Perry	Visit to Extension area and workshop regarding cultural values assessment. Written statement due by 30th June.
20 June 2014	Phone	WTC spokesperson	Gordon Griffiths	Gary Bernasconi called Gordon regarding numbers of Elders expected for visit next week. No return call.
20 June 2014	Email	WTC spokesperson	Des Hickey	Email to Gary Boland via 3rd party, regarding arrangements for Elders visit 3rd July.
23 June 2014	Phone	WTC spokesperson	Gordon Griffiths	Gary Bernasconi called Gordon regarding numbers of Elders expected for visit next week. GG will get list by 5 pm today. GG committed to organising a written statement of his assessment of 'Extension area' for draft addendum.
25 June 2014	Phone	WTC spokesperson	Gordon Griffiths	Gary Bernasconi called Gordon regarding numbers of Elders expected for visit next week. GG will get list by 5 pm today. GG committed to organising a written statement of his assessment of 'Extension area' for draft addendum.
25 June 2014	Report	OzArk EHM	Ben Churcher	Provision of revised V3.2 Archaeological Assessment, Appendices and Information Pack for RAPs
26 June2014	Phone	WTC spokesperson	Gordon Griffiths	Gary Bernasconi called Gordon regarding numbers of Elders expected for visit next week. GG will get list by 5 pm today. GG committed to organising a written statement of his assessment of 'Extension area' for draft addendum.
27 June	Phone	Wonnarua Nation Aboriginal Corporation	Laurie Perry	Gary Bernasconi called Laurie to enquire if WN still wish to provide a written statement on Cultural heritage values of extension area.
27 June 2014	Phone	WTC spokesperson	Gordon Griffiths	Gary Bernasconi called Gordon regarding numbers of Elders expected for visit next week. GG will get list by 5 pm today. GG committed to organising a written statement of his assessment of 'Extension area' for draft addendum.
30 June 2014	Email	Wonnarua Nation Aboriginal Corporation	Laurie Perry	Response confirming that extension area addition will not change any values or significance of 2013 ACHAR.

3 July 2014	Meeting	WTC Elders	Sandra Allan	Visit to Extension area and workshop regarding cultural values assessment. Written statement provided.
23 July 2014	Report	All Registered Aboriginal Parties	60 RAPs	Postal delivery of 'MOCO Project Addendum to the November 2013 Aboriginal Cultural Heritage Assessment Report' to all RAPs. Cover letter also included, informing RAPs of 28 review period from 24/7/14 - 20/8/14.
5 August 2014	Email	WTC spokesperson	Des Hickey	Request made by Des for a third cultural heritage assessment of the extension area by 10 additional WTC Elders. Letter attachment explains reason for request.
7 August 2014	Email	WTC spokesperson	Des Hickey	Reply by email accepting Des Hickey's request for additional site visit. The reply email included a letter explaining the original timeline for consultation and reporting.
7 August 2014	Email	WTC spokesperson	Des Hickey	Reply to above email stating WTC were having a meeting tonight and will contact Mount Owen tomorrow.
20 August 2014				28 day review period completed.

9.2.3 Stage 1 - Notification of Project Change

On 16 April 2014, Mount Owen issued a letter notifying all RAPs that the Project Description had changed, and proposed that a further 21ha would be harmed. An information pack accompanied this letter which detailed the proposed changes and the methodology for a further archaeological survey of the area. An explanatory letter and information pack was also mailed to Richard Bath (OEH) AND Noel Downs (WLALC).

GLENCORE

16 April 2014

DavidAhoy
5 Killara Drive
Cardiff South NSW 2285

Dear David,

Subject: Mount Owen Continued Operations Aboriginal Cultural Heritage Assessment (ACHA) Process

Mount Owen, through consultation with the Project's registered Aboriginal parties and the knowledge holders, completed an ACHAR for the Mount Owen Continued Operation's Project Area and lodged the report and attachments to the Department of Planning and Infrastructure for its review in December 2013.

Due to unforeseen circumstances the Mount Owen Continued Operation Project's description requires modification. The majority of these changes to the Project are within currently approved mining operations areas. Minor changes in pit design have added an additional proposed 21ha to 25 ha of disturbance to the 464ha of proposed disturbance assessed by you in the ACHA in 2013.

An information sheet on the changes is attached to this letter.

In August 2014, Mount Owen intends to re-issue its Environment Impact Statement (EIS) for an Adequacy review by the Department of Planning and Infrastructure, including updating the existing Aboriginal Cultural Heritage Assessment Report (ACHAR).

You have already informed Mount Owen of the cultural value and significance of the Project Area and wider region and submitted your values and recommendations in the Project's existing ACHAR.

Using the Project's Survey and Consultation methodology, through consultation with the registered Aboriginal parties and the knowledge holders, the additional proposed disturbance will be assessed to consider whether any further scientific or cultural values should be recorded in a revised ACHAR.

Private Mail Bag 8, Singleton, NSW 2330
567 Broke Road, Singleton, NSW 2330
T + 61 2 6570 2416 F + 61 2 6570 2520 www.glencore.com

Glencore Coal Assets Australia Pty Limited ACN 163 821 298

GLENCORE

Mount Owen will commence the archaeological survey of the area, likely to be one or two days, in late April 2014.

After the field survey a summary of the archaeological findings will be issued for your review.

During May and early June 2014 follow up visits and consultation shall determine whether there are any additional values or recommendations that need to be recorded, beyond that already documented in the 2013 ACHAR on the Project Area.

Mount Owen staff wants to acknowledge the effort and input by all into the process last year and thank you for your interest and active participation in the cultural assessment.

Mount Owen will work closely with you to assess the proposed new disturbance area and what additional information should be recorded to inform Mount Owen, the Department of Planning and Infrastructure and the Office of Environment and Heritage.

If there are any issues or questions, please give me a call.

Yours sincerely

Gary Bernasconi
Environment Coordinator
Ravensworth East Office
Glencore
M: +61 (0) 417 067 591
E: Gary.Bernasconi@glencore.com.au

GLENCORE

16 April 2014

Mr Richard Bath
Senior Team Leader Planning
Office of Environment and Heritage
PO Box 488G
NEWCASTLE NSW 2300

Dear Richard,

Subject: Mount Owen Continued Operations Aboriginal Cultural Heritage Assessment (ACHA) Process – OEH Notification

Mount Owen, through consultation with the Project's registered Aboriginal parties and the knowledge holders, completed an ACHAR for the Mount Owen Continued Operation's Project Area and lodged the report and attachments to the Department of Planning and Infrastructure for its review, in December 2013.

Due to unforeseen circumstances the Mount Owen Continued Operation Project's description requires modification. The majority of these changes to the Project are within currently approved mining operations areas. Minor changes in pit design have added an additional proposed 21ha to 25ha of disturbance to the 464ha of proposed disturbance assessed in the ACHA in 2013.

In August 2014, Mount Owen intends to re-issue its Environment Impact Statement (EIS) for an Adequacy review by the Department of Planning and Infrastructure, including updating the existing Aboriginal Cultural Heritage Assessment Report (ACHAR).

Using the Project's Survey and Consultation methodology, through consultation with the registered Aboriginal parties and the knowledge holders, the additional proposed disturbance will be assessed to consider whether any further scientific or cultural values should be recorded in a revised ACHAR.

Mount Owen has attached letters (and information pack) issued to the Project's registered Aboriginal parties for your record. If there are any issues or questions, please give me a call.

Yours sincerely

Gary Bernasconi
Environment Coordinator
Ravensworth East Office
Glencore
M: +61 (0) 417 067 591
E: Gary.Bernasconi@glencore.com.au

Private Mail Bag 8, Singleton, NSW 2330
567 Broke Road, Singleton, NSW 2330
T + 61 2 6570 2416 F + 61 2 6570 2520 www.glencore.com

Glencore Coal Assets Australia Pty Limited ACN 163 821 298

GLENCORE

16 April 2014

Noel Downs
Wanaruah Local Aboriginal Land Council
19 Maitland Street
Muswellbrook NSW 2333

Dear Noel,

Subject: **Mount Owen Continued Operations Aboriginal Cultural Heritage Assessment (ACHA) Process – WLALC and WLALC Board Notification**

Mount Owen, through consultation with the Project's registered Aboriginal parties and the knowledge holders, completed an ACHAR for the proposed Mount Owen Continued Operation's Project Area and lodged the report and attachments to the Department of Planning and Infrastructure for its review, in December 2013.

Due to unforeseen circumstances the Mount Owen Continued Operation Project's description requires modification. The majority of these changes to the Project are within currently approved mining operations areas. Minor changes in pit design have added an additional proposed 21ha to 25 ha of disturbance to the 464ha of proposed disturbance assessed in the ACHA in 2013.

In August 2014, Mount Owen intends to re-issue its Environment Impact Statement (EIS) for an Adequacy review by the Department of Planning and Infrastructure, including updating the existing Aboriginal Cultural Heritage Assessment Report (ACHAR).

Using the Project's Survey and Consultation methodology, through consultation with the registered Aboriginal parties and the knowledge holders, the additional proposed disturbance will be assessed to consider whether any further scientific or cultural values should be recorded in a revised ACHAR.

Mount Owen has attached letters (and information pack) issued to the Project's registered Aboriginal parties for your record. If there are any issues or questions, please give me a call.

Yours sincerely

Gary Bernasconi
Environment Coordinator
Ravensworth East Office
Glencore
M: +61 (0) 417 067 591
E: Gary.Bernasconi@glencore.com.au

Private Mail Bag 8, Singleton, NSW 2330
567 Broke Road, Singleton, NSW 2330
T + 61 2 6570 2416 F + 61 2 6570 2520 www.glencore.com

Glencore Coal Assets Australia Pty Limited ACN 163 821 298

GLENCORE

The Mount Owen Continued Operations Project
Revised Project Disturbance Area
INFORMATION

The Mount Owen Continued Operations Project (Project) is currently updating its EIS to allow for continued operations within Mount Owen Mine's North Pit existing mining lease area for a further 12 years, from 2018, to mine approximately 70Mt of additional coal. Since completing the EIS, ongoing mining studies have highlighted areas of improvement in the Mount Owen mine plan and subsequently, minor changes to the mining pit shell are proposed to improve the resource recovery in its tenements. An overview of the proposed revisions to the Project Disturbance Area and planned updates to assessments is provided below.

The Project, if approved, will consolidate the existing development consents for Mount Owen and Ravensworth East Mines and provide for further compliance efficiency by providing a single development consent for continued operations.

The Ravensworth East Mine, formerly known as the Swamp Creek Mine, has been operating since the 1960s, with the current mining activities approved in 1999. Significant coal reserves remain in the northern portion of the approved mining area and mining will continue into this previously mined area in early 2015.

Although already approved, the potential environmental impacts of mining in this area need to be considered as the existing Ravensworth East consent will be surrendered following any approval of the Mount Owen Continued Operations Project. Additional mining in this area, beyond the Ravensworth East Resource Recovery (RERR) Project, was unforeseen during development of the EIS during 2013.

From surface water studies it was determined that a water detention dam may be required at the western base of the Mount Owen rehabilitated spoil area. Further work is currently being undertaken with respect to this with the objective of minimising its disturbance.

The majority of Project changes are on existing disturbed and approved mining areas and all are within the existing Project Area. The works will add an additional 21ha to 25ha of disturbance to the 464ha of disturbance assessed in earlier EIS studies.

Mount Owen lodged its EIS in December 2013 with the Department of Planning and Infrastructure for internal review and has now requested delay of public exhibition until the EIS is revised to include mining in the northern area of Ravensworth East and to examine the impacts of a change to the disturbance boundary.

As part of that submitted EIS a comprehensive Aboriginal Cultural Heritage Assessment Report (ACHAR), including an Aboriginal Archaeological Values Assessment, was completed on the Project Area by the 60 registered Aboriginal parties, Mount Owen Pty Ltd, Australian Cultural Heritage Management Pty Ltd and OzArk Environmental and Heritage Management in 2013.

Mt Owen Pty Limited ABN 83 003 827 361
Hebden Rd, Hebden via Singleton NSW 2330 Australia
PO Box 320 Singleton NSW 2330 Australia
Telephone 61 2 6570 0880 • Facsimile 61 2 6576 1643

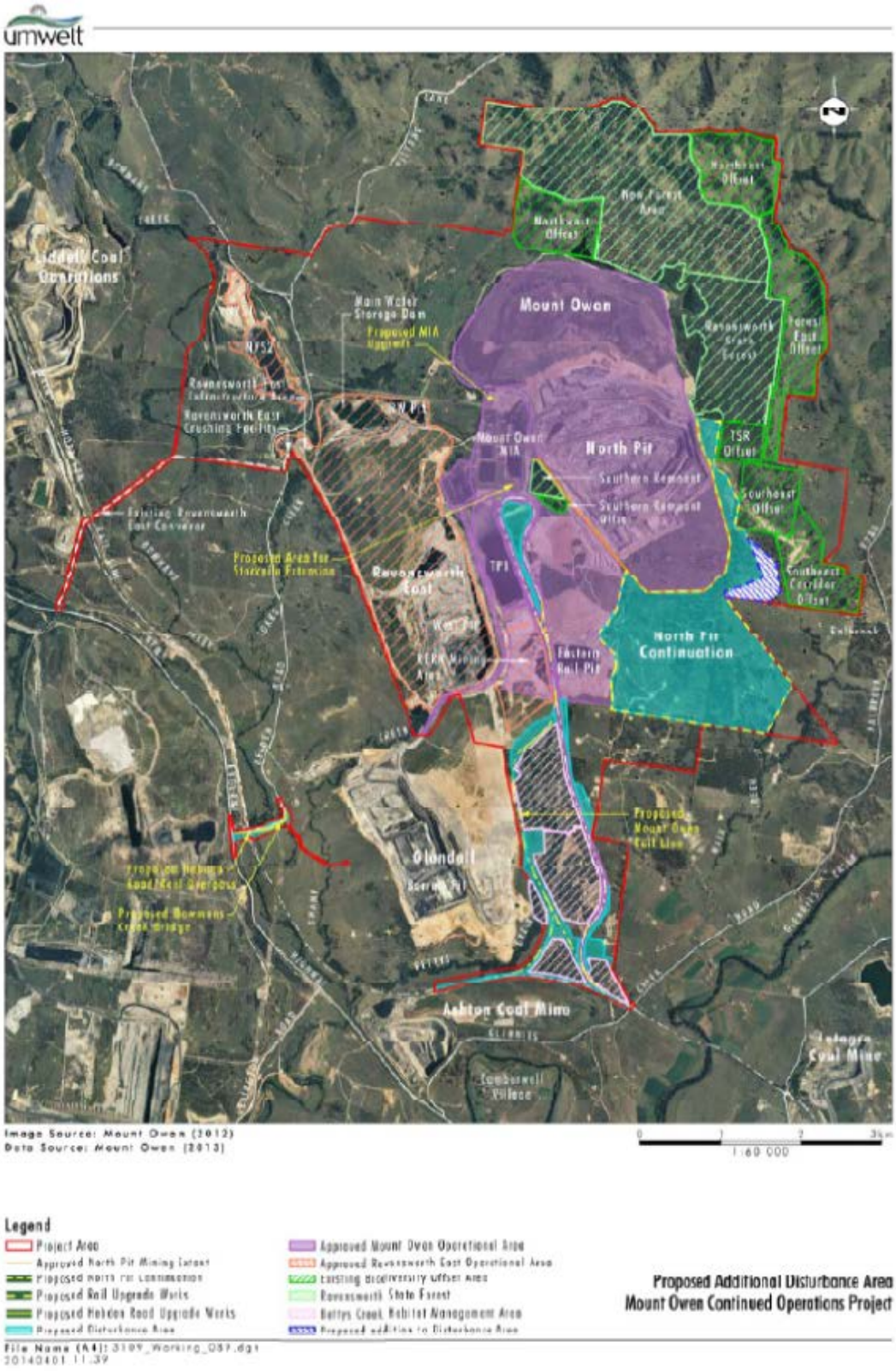


Figure 1: Proposed Additional Disturbance Area

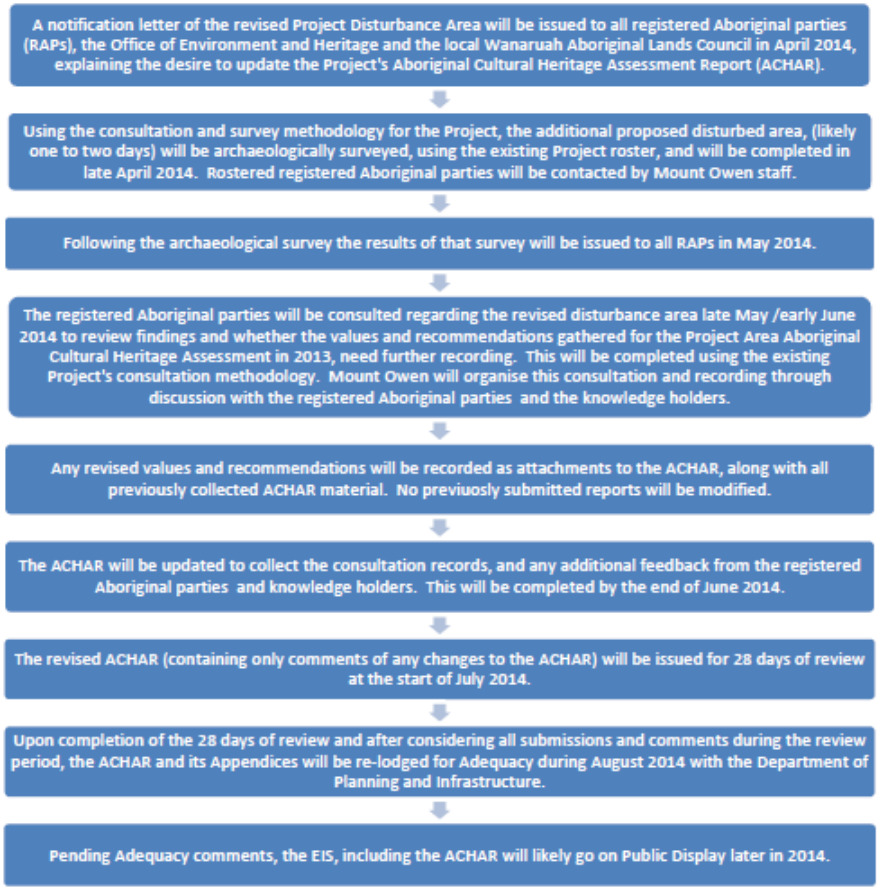
The change in the proposed Project Disturbance Area is noted in Figure 1.

For the revised EIS, the ACHAR will be reviewed and updated after the assessment of the additional proposed disturbance area by the registered Aboriginal parties and the knowledge holders.

The 60 registered Aboriginal parties will be consulted on the change in disturbance area and a summary of any additional cultural values or recommendations will be issued for 28 days of review.

As the Project has completed an ACHAR on the Project and regional area, Mount Owen will not be updating reports already received by the registered Aboriginal parties and the knowledge holders. Mount Owen will provide a process for the registered Aboriginal parties and the knowledge holders to collect any cultural information and recommendations from assessing the additional disturbance to form a revised ACHAR.

The following process will be used by Mount Owen to update the ACHAR.



An archaeological survey will be conducted in the extra area of disturbance and its results issued to the Project's registered Aboriginal parties, including the 3 knowledge holder groups and the Wanaruah Local Aboriginal Lands Council.

All Project registered Aboriginal parties, including the 3 knowledge holder groups and the Wanaruah Local Aboriginal Lands Council, will be provided the opportunity to view the land for their cultural assessment, should they wish to do so, and make comment on their submitted values and recommendations to inform the revised Project's ACHAR.

The proposed areas of disturbance have been designed to avoid harm.

The majority of changes to the Project are within the Ravensworth East consent boundary. The proposed mining in this area has already been approved to be disturbed.

Various options to manage water off the existing rehabilitated mine landform have been assessed, including the potential construction of a water detention basin. This would require a small proposed disturbance area to the northwest of the Project close to the Coal Handling and Preparation Plant. Water infrastructure in this area is required as there is potential for indirect harm to York's Creek. This catchment, during heavy rain events and flows, has the potential for scouring and erosion of the Creek due to excessive water velocities in such events. A detention basin will reduce flow velocity and reduce downstream harm. During these studies a system of diverting natural flows through existing and vegetated water ways at the base of the landform is being assessed. Further modelling is currently being undertaken with respect to this with the objective of minimising the disturbance.

The mining area proposed to be disturbed to the east of the proposed mining area is on a hill and not located near waterways or any known area of high cultural significance. The mine plan has been modified as it will improve resource recovery from Mount Owen's existing tenements and improves the operating width and mining efficiency in this local area.

Bink Creative Pty Ltd
ABN 14 109 841 509
Shop 1, 10–14 North Avenue
PO Box 877, Cessnock NSW 2325
Phone (02) 4990 3230
Fax (02) 4990 2530
info@binkcreative.com.au
www.binkcreative.com.au

Xstrata Mt Owen Pty Limited

Mt Owen Pty Limited
0

Estimate

Date: 16/04/2014
Job #: 105543

GC_Mt Owen_RAP Letter & Info Pack

Print & mail distribution of the RAP letter and the 4pp info pack to 59 people on the mailing list provided.

E13960 **Mail Merge of Letter**

Design costs

Activity	Amount
Project management	$39.00
Design	$109.20
Total	$148.20

Printing of A4 letters and 4pp info pack

Item	Unit Price	Quantity	Amount
1pp A4 letter - black only on 160gsm Sovereign Offset	*$1.00*	*2*	*$2.00*
2pp A4 letter - black only on 160gsm Sovereign Offset	*$1.07*	*61*	*$65.45*
4pp Info Pack	*$2.70*	*61*	*$164.62*

Collate into envelopes, Label and Mailout

Item	Unit Price	Quantity	Amount
DL Envelopes	*$0.10*	*61*	*$6.10*
Print Address Labels	*$0.26*	*61*	*$15.26*
Fold and Insert	*$110.00*	*1*	*$110.00*
Postage	*$0.70*	*61*	*$42.70*

THE FINE PRINT
All prices are inclusive of GST. Two rounds of changes are included. Additional alterations will be charged at $145 p/h inc GST.

PAYMENT TERMS
On acceptance of this estimate, design jobs over $1,000 require a commitment deposit of 50% upfront.
Unless otherwise stated, projects are payable 14 days after delivery of service. Print Orders over $1,000 require upfront payment.
All other print orders are payable on delivery (COD). If providing your own artwork, please note that charges may apply if print ready files are not supplied by the client or if print ready files have been supplied incorrectly.
If a project has 'stalled' (more than three weeks of no-action), BINK Creative will invoice for work-to-date (less any payments already made).
20130628

This estimate is valid for two months after date shown.

9.2.4 Stage 2 and 3 Briefing

An archaeological field survey of the extension area was arranged for 29 April 2014 with the assistance of 12 RAPs. The survey was conducted by Archaeologists Ben Churcher and Jennifer Bertolani (OzArk EHM), with only 8 RAPs in attendance. Three rostered RAPs notified Mount Owen staff the night before that they would not be able to attend and one failed to show on the morning of the survey. Those that could attend confirmed their attendance via email.

Bernasconi, Gary (NSW - Coal)

From: Ka-u-ma Pondee <kaumapondee@live.com>
Sent: Wednesday, 16 April 2014 6:23 PM
To: Bernasconi, Gary (NSW - Coal)
Subject: Re: MOCO Extension area survey

Categories: Important, Red Category

Hi Gary
Kauma Pondee wish to participate on the 29th and either myself or Dave Ahoy will be our representative. Not currently in the office and will forward insurances mid next week when I return.

Regards
Jill Green

Sent from my iPhone

On 16 Apr 2014, at 4:12 pm, Gary.Bernasconi@glencore.com.au wrote:

> Hi Jill,
>
> Mount Owen has made a minor change to the proposed pit shell design which has necessitated a change to the disturbance area boundary. A letter which details the changes is being posted to all Registered Aboriginal Parties today to explain the process. From this we would like to revisit the area and inspect an additional 21 hectares of land adjacent to the original surveyed area.
>
> We will have 12 people here on 29th April, to conduct a walkover archaeological assessment, to cover this area off for an appendix to the ACHAR. Can you please advise who you wish to attend the Ravensworth East office at 8am on the 29th April for the archaeological fieldwork survey?
>
> If you are interested in the survey job, can you please email me a copy of your current workers compensation and business insurance details before the 24th April?
>
> Regards,
>
> **Gary Bernasconi**
> *Environment Coordinator*
> *Mount Owen Continued Operations*
> *Glencore*
>
> *T:* 02 65202681
> M: 0417 067 591
> E: Gary.Bernasconi@glencore.com.au
>
> www.glencore.com

Bernasconi, Gary (NSW - Coal)

From: Laurie Perry <l.perry@optusnet.com.au>
Sent: Thursday, 17 April 2014 9:20 AM
To: Sandra Jones; Rebecca Lester; Craig Smith; Bernasconi, Gary (NSW - Coal)
Subject: Re: Moco Extension

Categories: Red Category

Thanks Sandra....

Garry .....Sandra, Rebecca and Georgina right for work 29th April.....I have included our bookkeeper Craig in this email for invoicing.

Cheers
Laurie

-----Original Message-----
From: Sandra Jones
Sent: Thursday, April 17, 2014 8:51 AM
To: l.perry@optusnet.com.au
Subject: Moco Extension

Hi Laurie Rebecca and Sandra can do this work on the 29th

Sent from my iPhone

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4355 / Virus Database: 3882/7354 - Release Date: 04/16/14

No virus found in this message.
Checked by AVG - www.avg.com
Version: 2014.0.4355 / Virus Database: 3882/7354 - Release Date: 04/16/14

Bernasconi, Gary (NSW - Coal)

From: Scott Franks <scott@tocomwall.com.au>
Sent: Monday, 28 April 2014 1:11 PM
To: Bernasconi, Gary (NSW - Coal)
Cc: Sarah Franks
Subject: FW: field work

Categories: Red Category

Gary,

The following people will be.

Rhonda Ward

Maria Stocks

Annastazia Stock

Regards
Scott Franks

Native Title & Environmental Services Manager

Tocomwall Pty Ltd
PO Box 76
CARINGBAH NSW 1495
m: 0404 171544
p: 02 9542 7714
f: 02 9524 4146
e: scott@tocomwall.com.au
www.tocomwall.com.au

The information contained in this e-mail message and any attached files may be confidential and may contain copyright material of Tocomwall Pty Ltd or third parties. Any unauthorised use, disclosure or copying of this e-mail and/or its attachments is prohibited. If you have received this e-mail in error please notify the sender immediately by return e-mail and delete all copies of the message and attachments. Before opening or using attachments, please check them for viruses or defects. Our liability is limited to resupplying the e-mail and attached files. Content and views expressed in this e-mail may be those of the sender, and are not necessarily endorsed by Tocomwall Pty Ltd.

From: "Gary.Bernasconi@glencore.com.au" <Gary.Bernasconi@glencore.com.au>
Date: Thursday, 24 April 2014 11:57 am
To: Scott Franks <scott@tocomwall.com.au>
Subject: RE: field work

Hi Scott,

One day only, 8am start next Tuesday 29th April. (Ben Churcher has also set aside Wednesday 30th in case it is raining on Tuesday).

Cheers,

Bernasconi, Gary (NSW - Coal)

From: Desmond Hickey <deshickey@bigpond.com>
Sent: Sunday, 27 April 2014 9:04 PM
To: Bernasconi, Gary (NSW - Coal)
Subject: RE: Mount Owen Fieldwork

Categories: Important

Hi Gary
Sorry mate can't get Luke for Tuesday or anyone else please let me know the outcome of the survey
Cheers'
Des

From: Gary.Bernasconi@glencore.com.au [mailto:Gary.Bernasconi@glencore.com.au]
Sent: 24 April 2014 07:07
To: deshickey@bigpond.com
Subject: Mount Owen Fieldwork

Hi Des,

Can you please advise if you, or someone else, from Wattaka Wonnarua Cultural Consultancy Services intends to be part of the archaeological fieldwork survey on the 29th April, starting at 8am from the Ravensworth East offices?

Can you also please email me a copy of your current workers compensation and business insurance details today (latest possible time would be 10am Monday 28th April). If the necessary paperwork is not forwarded by this time I will have to call the next person on the roster.

Workers will not be able to attend field work as planned unless I have a copy of your current insurance and compo details **prior to starting**.

Cheers,

Gary Bernasconi
Environment Coordinator
Mount Owen Continued Operations
Glencore

T: 02 65202681
M: 0417 067 591
E: Gary.Bernasconi@glencore.com.au

www.glencore.com

On 29 April 2014, before commencing the archaeological survey, the team of 8 RAPs and 2 Archaeologists signed the below Contractor Work Authorisation and Job Safety Analysis. A short presentation was also shown to reiterate the methodology used for the previous archaeological survey and to explain the proposed changes.

XCN SD FRM 0994

JOB SAFETY ANALYSIS (JSA) FORM

Job or Activity: ARCHAEOLOGICAL SURVEY		Date: 29. 4. 2014 Training required for this activity: Glendell Mine Short term induction.	Equipment and PPE required: As per Induction requirements.
Name of person leading JSA: GARY BERNASCONI	Title: ENVIRONMENT COORDINATOR	Signature of person leading JSA:	
Location: MOCO PROJECT	Department: Ravensworth East	Approved (Supervisor as required):	
Contract Companies: OZARK EHM			
EMERGENCY CONTACT DETAILS: GLENDELL MINE 65202555			

THIS DOCUMENT IS UNCONTROLLED UNLESS VIEWED ON THE INTRANET

Critical steps in activity	Potential hazards	Control	Responsibility for controls (signature)
Driving on public roads	Motor Vehicle accident	• Escorted to and from site by Glendell Mine approved licence holder. • Obey NSW road rules.	
	Level Crossings	• Obey level crossing signs and boom gate rules	
	Poor weather conditions	• Reduce speed. • Drive to conditions.	
	Personal injury	• Current NSW Drivers licence. • Daily pre-start vehicle inspections. • Transport in approved vehicles only. • All equipment to be transported in rear cargo section of vehicle.	
Environmental conditions	Sunburn	• Sunscreen supplied at meeting point. • Appropriate hat and clothing • Shade shelters for lunch breaks.	
	Uneven ground	• Eyes on path of intended route • Reassess Take 5 if conditions change • Good housekeeping at meeting points	
	Elevated temperatures	• Cold water supplied at meeting points • Shade shelters for lunch breaks.	
	Bushfire	• No naked flames during field work. • Smoking at designated point only –remove cigarette butts from site daily. • Fire extinguishers in each vehicle.	
		•	

THIS DOCUMENT IS UNCONTROLLED UNLESS VIEWED ON THE INTRANET

Critical steps in activity	Potential hazards	Control	Responsibility for controls (signature)
Site Access	Bogging	• Drive on well-defined tracks only. • Park at meeting point only.	
	LV interaction	• Designated parking area	
	Snakes bite, other bites and stings	• Snake bite kits & first aid kits in each vehicle • Trained first aid staff	
	Unplanned vehicle movement	• Park in fundamentally stable position.	
Working on site	Inappropriate emergency response	• Task Coordinator on site • Emergency Muster area & signage • Two way radio communication with Glendell • Emergency procedure – notify Glendell OCE, provide map and contact details of work area	
	Manual handling injury	• Appropriate PPE • Pre start site assessment – Take 5 • Correct lifting technique	
	Personnel not fit for work	• Site drug and alcohol policy – daily prestart checks	
	Artefact disturbance	• Follow Code of Practice for Archaeological investigations	

THIS DOCUMENT IS UNCONTROLLED UNLESS VIEWED ON THE INTRANET

Activity	Potential Hazards	Control	Responsibility
Blast zones	Flyrock	• Check blast noticeboards & blast emails to inform of blast times • Evacuate area in accordance with exclusion zone rules	
	Fume	• Evacuate area in accordance with exclusion zone rules • Stay in LV with A/C on if wind changes	
	Inadvertent entry to blast zone	• Sentries, barricades	
Other	Movement of livestock into active mining areas	• Keep Forest Road entry gates closed at all times. • Leave other gates as found.	
	Equipment theft	• All equipment to be returned to Ravensworth East Office each afternoon.	
	Interaction with other contract teams	• Communicate with contract coordinators on site each morning.	

29/4/14.

Sign on sheet

Date	Company	Name	Signature
29.4.14	WNAC	Rebecca Lester	
29-4-14	WNAC	Sandra Jones	
29-4-14	CNCOC	Georgina Bellamy	
29-4-14	KP/LHAI	David Alway	
29.4.14	E.M.T. CULTURAL HERITAGE	M.J. LESLIE	
29-4-14	TOCOMWALL	Rhonda Ward	
29-4-14	Tocomwall	Maria Stocks	
29/4/2014	OZARK EHM	Jennifer Bertolani	
29/4/2014	Tocomall	Annastazia Stocks	
29.1.14	Ozark EHM	BEN [illegible]	
29.4.14	GCCA	GARY BERNASCONI	

THIS DOCUMENT IS UNCONTROLLED UNLESS VIEWED ON THE INTRANET

MOCO Archaeology Survey Part 2



MOCO Revised Disturbance Area

REVISED TIMELINE

APRIL
Archaeological survey
MAY
Opark to finalise survey results
Present survey results to all RAPs
On site visit to assess Cultural Heritage
JUNE
Group meetings to facilitate cultural heritage updates for ACHAR appendix
JULY
Write appendix for ACHAR
Submit appendix to RAPs for 28 day review
AUGUST
Finalise submissions
SEPTEMBER
Submit 'Final ACHAR'



MOCO Revised Disturbance Area

The Mount Owen Continued Operations Project is currently updating its EIS to allow for continued operations within the North Pit existing mining lease area for a further 12 years, from 2018, to mine approximately 70Mt of additional coal.

Since completing the EIS, ongoing mining studies have highlighted areas of improvement in the Mount Owen mine plan and subsequently, minor changes to the mining pit shell are proposed to improve the resource recovery in its tenements. An overview of the proposed revisions to the Project Disturbance Area and planned updates to assessments is provided below.

Mount Owen Detention Basin



MOCO Revised Disturbance Area

The majority of Project changes are on existing disturbed and approved mining areas and all are within the existing Project Area. The works will add an additional 21ha to 25ha of disturbance to the 466ha of disturbance assessed in earlier EIS studies.

Mount Owen lodged its EIS in December 2018 with the Department of Planning and Infrastructure for internal review and has now requested delay of public exhibition until the EIS is revised to include mining in the northern area of Ravensworth East and to examine the impacts of a change to the disturbance boundary.



Mount Owen Detention Basin

- Studies are currently underway to determine if a detention basin is required in the area designated by the purple circle (slide 5)
- Archaeology survey required to assess this site
- If dam is not required, no further cultural heritage assessment required

9.2.5 Stage 3 - Archaeological Survey Field Results

OzArk EHM provided a final 'Aboriginal Archaeological Assessment' for the extension area on 15 May 2014. This summary document (see below) was mailed to all RAPs on 22 May 2014 for their information. The information that was provided to RAPs has been incorporated into the updated summary that is provided in Appendix 9.3 of this document.



A View of the North Pit Extended Study Area.

Aboriginal Archaeological Assessment

2014

Mount Owen Continued Operations Project

Proposed North Pit Extended and Detention Basin Study Areas

Summary of Findings

Author: Ben Churcher

May 2014

Environmental and Heritage Management P/L

OzArk EHM
145 Wingewarra St
(PO Box 2069)
Dubbo NSW 2830

Phone: (02) 6882 0118
Fax: (02) 6882 0630
jodie@ozarkehm.com.au
phil@ozarkehm.com.au
www.ozarkehm.com.au

CONTENTS

1 Background 2
1.1 Proposed new Disturbance Areas 3
2 The Study Areas 5
2.1 North Pit Extended Study Area 5
2.2 Detention Basin Study Area 5
3 Archaeological background 6
3.1 North Pit Extended Study Area 6
3.2 Detention Basin Study Area 6
4 Survey Method and Constraints 8
5 Survey Results 9
5.1 North Pit Extended Study Area 9
MOCO IF-21 9
MOCO IF-22 10
5.2 Detention Basin Study Area 12
MOCO IF-23 12
MOCO IF-24 12
MOCO IF-25 13
37-3-0350 13
5.3 Discussion 14
6 Assessment of Scientific Significance 16
7 Management of Aboriginal cultural heritage values 16
7.1 North Pit Extended Study Area 16
7.2 Detention Basin Study Area 16
8 Recommendations 17

1 BACKGROUND

This summary report has been prepared to inform the Registered Aboriginal Parties (RAPs) of the findings arising from an additional survey that was completed for the Mount Owen Continued Operations Project (the Project).

During 2013, an Aboriginal Cultural Heritage Assessment (ACHA) was undertaken by Mount Owen Pty Ltd (Mount Owen) and Australian Cultural Heritage Management Pty Ltd (ACHM) in collaboration with the Project's RAPs to assess the Aboriginal cultural heritage values of the proposed Project.

OzArk Environmental also prepared an Aboriginal Archaeological Values Assessment (November 2013) to assess the scientific (archaeological) value, and provide management recommendations for, identified and potential Aboriginal sites within the Project Disturbance Area.

These reports were provided to the RAPs as a Draft Report for 28 days of review and comment prior to the finalisation of the ACHA in November 2013 and subsequently incorporated into the Project's EIS. The EIS was submitted to the Department of Planning and Environment (DP&E), (formerly the Department of Planning and Infrastructure (DP&I)) for adequacy review in December 2013.

Mount Owen Pty Limited (Mount Owen) plans to revise the current Project EIS to include mining of the Bayswater North Pit (BNP), at the Ravensworth East mine, and other minor amendments including additional disturbance for a minor extension of the North Pit shell and an allowance for a detention basin (if required) (**Figure 1**).

The data within this summary will be incorporated into the Archaeological Values Assessment (November 2013) which will accompany the revised EIS when it is re-submitted.

This summary of the additional assessment will be sent to all RAPs to inform them of the findings and to provide RAPs the opportunity, if they wish, to comment on the findings or recommendations contained in this document that pertain to the most recent assessment. The revised Archaeological Values Assessment report will contain no new additions other than what is presented in this document.

To avoid unnecessary duplication, the full version of the revised Archaeological Values Assessment will not be re-sent to RAPs as it will be, in the majority, identical to the report RAPs have already received. Notwithstanding, Mount Owen will provide the relevant sections/pages of the Archaeological Values Assessment that have changed for the RAPs to review.

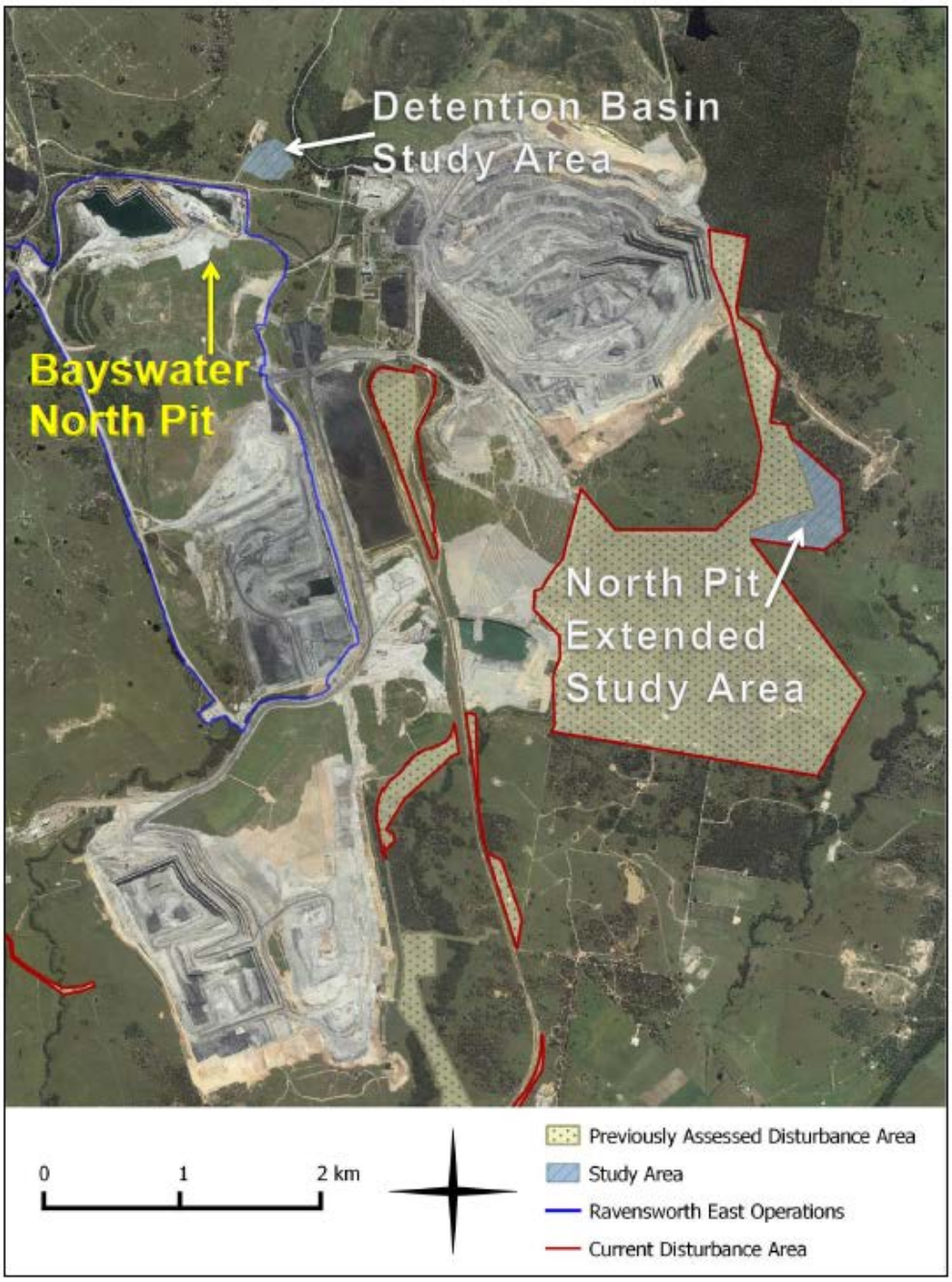
1.1 Proposed new Disturbance Areas

The works associated with BNP will impact areas that are located in areas previously approved for mining and further archaeological investigation is unwarranted within this area.

The project Disturbance Area will increase by approximately 21ha in the south east of the Disturbance Area associated with the North Pit that was subject to the Archaeological Values Assessment (November 2013). This area was previously unassessed for archaeological values in the 2012/2013 surveys and so is included in the current assessment (North Pit Extended Study Area; **Figure 1**).

A small area of additional disturbance may be required to the north of the existing Disturbance Area associated with the North Pit, in the vicinity of the Orica explosives facility. This area is being considered for a potential detention basin (dam) and this area was also assessed to identify any Aboriginal heritage constraints (Detention Basin Study Area; **Figure 1**).

Figure 1: Location of the North Pit Extended Study Area and the Detention Basin Study Area



2 THE STUDY AREAS

The areas subject to Aboriginal heritage assessment were limited to a 21ha area to the east (North Pit Extended Study Area) and a 10.7ha area in the north (Detention Basin Study Area). All other areas affected by the revised Disturbance Area are either in heavily modified landforms or in areas where archaeological salvage has already taken place in the past.

2.1 NORTH PIT EXTENDED STUDY AREA

The Study Area consists of upper, mid and lower slopes on the eastern side of a ridge that divides the Bettys Creek catchment to the west from that of Main Creek to the east. The Study Area contains moderate to gentle slopes in landforms that have been completely cleared of tree cover in the past. Currently, approximately 25% of the area consists of cleared paddocks, while the remainder is regenerating Ironbark or Spotted Gum woodland (**Figure 2. 1**).

There are no permanent water sources within the Study Area, and while there are some sizeable erosion gullies, these would only carry water following rain (**Figure 2. 2**).

Figure 2: Environment of the North Pit Extended Study Area.



1. TYPICAL VIEW OF THE NORTH PIT EXTENDED STUDY AREA IN UPPER SLOPE LANDFORMS TO THE NORTH.



2. VIEW OF THE LARGEST EROSION GULLY IN THE STUDY AREA.

2.2 DETENTION BASIN STUDY AREA

The Study Area occupies lower slopes in an area that has largely been cleared of trees, although a few isolated trees remain particularly in the east and north of the Study Area (**Figure 3. 1**).

The Study Area consists of a shallow valley that currently has water running through it at times of rain. However there is no evidence that the area contained permanent water in the form of a waterway, or even a swamp, prior to changes in local hydrology brought about by the nearby mine dump area. An 80m long and 30m wide erosion scald is located in the centre of the Study Area (**Figure 3.2**). The erosion has removed the A Horizon soils from within this area.

Figure 3: Environment of the Detention Basin Study Area.

	
1. TYPICAL VIEW OF THE DETENTION BASIN STUDY AREA IN UPPER SLOPE LANDFORMS IN THE NORTH OF THE STUDY AREA.	2. VIEW OF THE EROSION SCALD IN THE LOWEST PORTIONS OF THE STUDY AREA.

3 ARCHAEOLOGICAL BACKGROUND

3.1 NORTH PIT EXTENDED STUDY AREA

The 2012/2013 archaeological investigation for the Mount Owen Continued Operations Disturbance Area included contiguous landforms on the western slope of the ridge on which, the current Study Area is located, albeit on the eastern slopes. During the earlier assessment, one very low density artefact scatter was recorded at the base of the western slope (MOCO OS-2) and three isolated finds (MOCO IF-1 to 3) were recorded further north along the same ridge occupied by the current Study Area (**Figure 4**). Two further sites, 37-3-0655 and 37-3-0656, have also been recorded on the lower western slopes of the ridge, although both these sites have been salvaged in the past.

No sites were recorded during the earlier assessment on the slopes or crest of the ridge in the immediate vicinity of the Study Area and no sites have been previously recorded within the Study Area.

3.2 DETENTION BASIN STUDY AREA

Landforms contiguous with this Study Area did not form part of the earlier Mount Owen Continued Operations archaeological assessment.

One previously recorded site, 37-3-0350, is located within the Study Area (see **Figure 11**). Site 37-3-0350 is an artefact scatter consisting of four artefacts in a 30m by 30m area.

Figure 4: The North Pit Extended Study Area and previously recorded sites.



4 SURVEY METHOD AND CONSTRAINTS

The survey of both Study Areas was undertaken by Ben Churcher (Senior Archaeologist) and Jennifer Bertolani (Archaeologist) (OzArk Environmental & Heritage Management Pty Limited), eight Registered Aboriginal Parties (RAPs), or their representatives, and Gary Bernasconi (Mount Owen). The survey took place on Tuesday 29 April 2014.

Both Study Areas were surveyed by full pedestrian survey and this was aided by their relatively small size. There were no constraints to the survey in terms of access, terrain or vegetation.

Ground surface visibility (GSV) was variable across both Study Areas.

In the North Pit Extended Study Area the grass cover was light and exposures were relatively frequent. Around the ephemeral drainage lines, the exposures were more extensive. In 25% of the Study Area which consisted of cleared paddocks, the GSV was lower as thick grass often obscured the ground surface.

In the Detention Basin Study Area, GSV was extremely low within cleared paddocks as thick grass cover obscured the ground surface. The only exception to this was in a series of erosion scalds in the centre of the Study Area where there was 100% visibility, albeit of basal clays rather than A Horizon soils. Areas within the open woodland portions of the Study Area generally also had low GSV although exposures were more frequent when compared to the lack of exposures in the open paddock portions.

Although low GSV was a hindrance to the archaeological survey, particularly in the Detention Basin Study Area, this was compensated for by the number of surveyors (ten), a more-intensive investigation of the available exposures and an assessment of the landforms based on past findings in the area.

In conclusion, it is considered that the Study Areas were able to be adequately assessed during the survey to enable the archaeological characteristics of each area to be determined.

5 SURVEY RESULTS

Five isolated artefacts were recorded during the assessment: two in the North Pit Extended Study Area and three in the Detention Basin Study Area. Details concerning these sites are provided in **Table 1**.

Table 1. Sites recorded during the current assessment.

Site name	Site type	Site description	GDA Zone 56 Easting	GDA Zone 56 Northing	Study Area
MOCO IF21	Isolated artefact	Broken mudstone flake	323845	6412318	North Pit Extended
MOCO IF22	Isolated artefact	Mudstone flake with possible edge wear	323861	6411957	North Pit Extended
MOCO IF23	Isolated artefact	Mudstone flake	319809	6414557	Detention Basin
MOCO IF24	Isolated artefact	Broken retouched mudstone blade	319791	6414618	Detention Basin
MOCO IF25	Isolated artefact	Broken silcrete flake	319780	6414604	Detention Basin

5.1 NORTH PIT EXTENDED STUDY AREA

MOCO IF-21

MOCO IF-21 is a broken mudstone flake that was located on an ant mound in a sloping landform that is generally overlooking an ephemeral gully (**Figure 5**). It is likely the artefact has been displaced from its original location due to bioturbation. The site is within an Ironbark woodland (**Figure 7**).

Figure 5: MOCO IF-21.



1. MOCO IF-21. THE LOCATION OF THE ARTEFACT IS SHOWN BY THE BLUE BOOK ADJACENT TO THE ANT MOUND.



2. MOCO IF-21. VIEW OF THE ARTEFACT; A BROKEN MUDSTONE FLAKE.

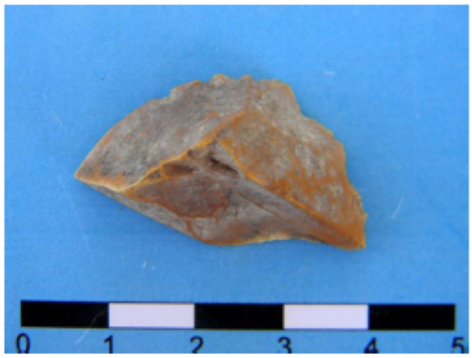
MOCO IF-22

MOCO IF-22 is a mudstone flake located on the banks of an ephemeral drainage line where there has been sheet wash erosion and soil loss (**Figure 6**). It is likely the artefact has been displaced from its original location due to erosion. The site is within a Spotted Gum woodland (**Figure 7**). The artefact displayed evidence old non-recent edge wear at the distal end.

Figure 6: MOCO IF-22.



1. MOCO IF-22. THE LOCATION OF THE ARTEFACT IS SHOWN BY THE BLUE BOOK IN THE FOREGROUND.



2. MOCO IF-22. VIEW OF THE ARTEFACT; A MUDSTONE FLAKE WITH POSSIBLE EDGE WEAR ON ONE EDGE (SHOWN AT TOP).

Figure 7: Location of MOCO IF-21 and MOCO IF-22.



5.2 Detention Basin Study Area

MOCO IF-23

MOCO IF-23 is a mudstone flake located on the edge of open woodland in a small area of exposure (**Figure 8**). The immediate vicinity of the site has been cleared and is currently grassed (**Figure 11**). It is likely the artefact has been displaced from its original location due to vegetation removal and erosion.

Figure 8: MOCO IF-23.



1. MOCO IF-23. The location of the artefact is shown by the bag and blue book in the foreground.



2. MOCO IF-23. View of the artefact; a mudstone flake.

MOCO IF-24

MOCO IF-24 is a broken, retouched mudstone blade located within a large erosion scald (**Figure 9**). The artefact, of which only 1.5cm remains, displayed fine, uni-facial retouch along one lateral edge. The site is located in an area of total modification by erosion and the artefact has been definitely displaced from its original position by erosion (**Figure 11**). No evidence of further artefacts were observed eroding from the nearby bank of the erosion scald suggesting that the artefact has not come from the immediate vicinity.

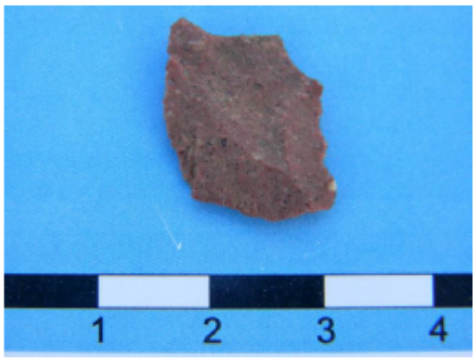
Figure 9: MOCO IF-24.

	
1. MOCO IF-24. THE LOCATION OF THE ARTEFACT IS SHOWN BY THE BAG AND BLUE BOOK IN THE FOREGROUND.	2. MOCO IF-24. VIEW OF THE ARTEFACT; A BROKEN, RETOUCHED, MUDSTONE BLADE.

MOCO IF-25

MOCO IF-25 is a broken Silcrete flake located within a large erosion scald (**Figure 10**). The site is located in an area of total modification by erosion and the artefact has been definitely displaced from its original position by erosion (**Figure 11**). No evidence of further artefacts was observed in the area suggesting that the artefact has not come from the immediate vicinity.

Figure 10: MOCO IF-25.

	
1. MOCO IF-25. THE LOCATION OF THE ARTEFACT IS SHOWN BY THE BAG AND BLUE BOOK IN THE FOREGROUND.	2. MOCO IF-25. VIEW OF THE ARTEFACT; A BROKEN, SILCRETE FLAKE.

37-3-0350

The site card for 37-3-0350 records that the site consisted of four artefacts when recorded by Jill Ruig in 1996. These were two mudstone flakes (maximum dimensions: 12mm and 21mm), a flaked piece (mudstone; maximum dimension 22mm) and a volcanic axe (Maximum dimension 129mm).

The site is described as being in a cleared paddock in the footslopes above an erosion scald.

Although an effort was made to locate the site during the assessment, no artefacts were observed at the location given in the site card. It is still considered likely that this site exists however, as the area at the time of the assessment was covered in thick grass that obscured a good view of the ground surface meaning that the artefacts may have been missed. It is also entirely likely, however, that during the intervening 18 years that have passed since the original recording that these artefacts have been displaced from their recorded location by water movement on the sloping landform.

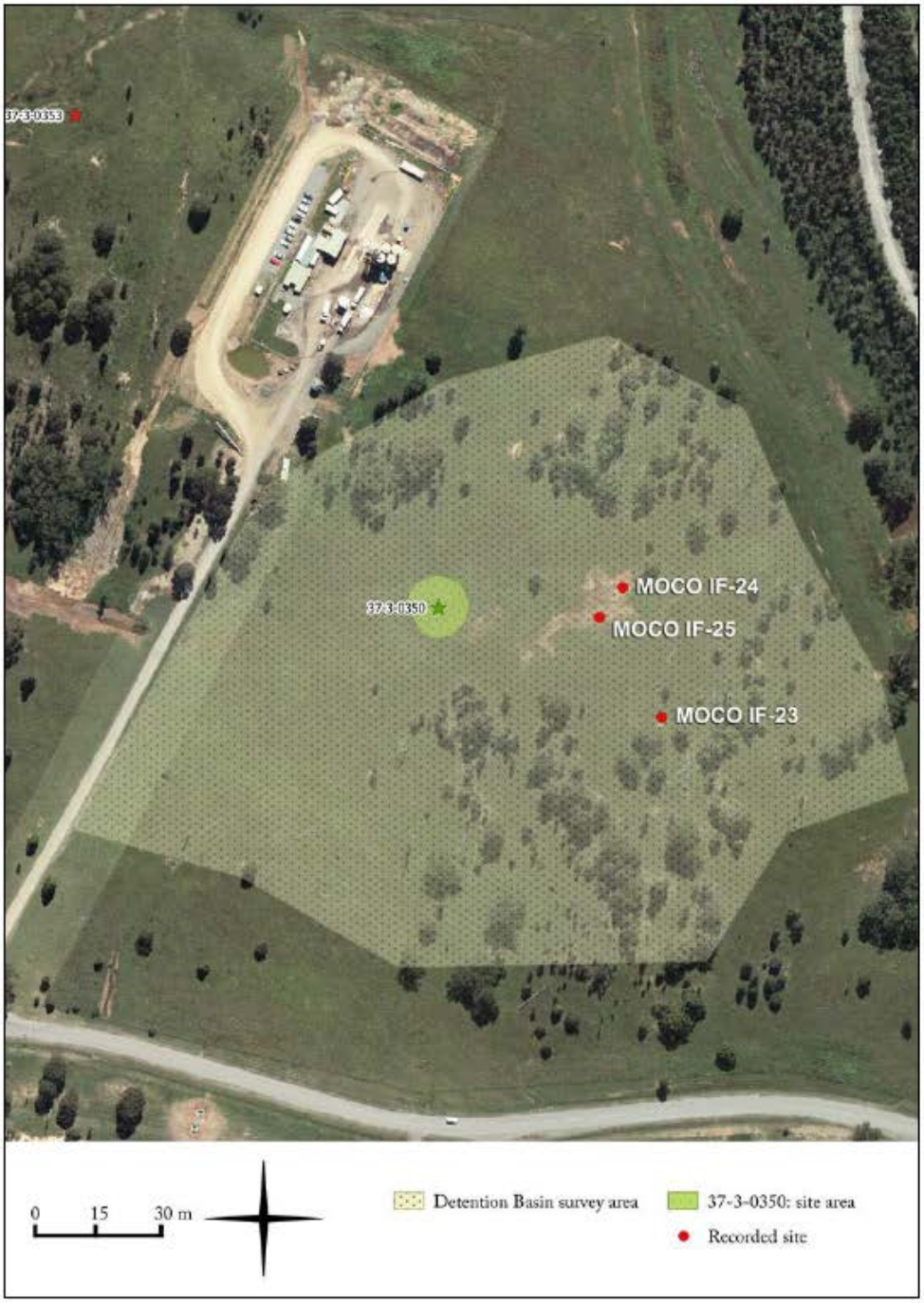
5.3 DISCUSSION

Based on the findings from the 2012/2013 assessment for the Project and previous archaeological work that has been carried out in the area, the results of the current assessment are in accord with other findings. As neither Study Area contained areas of permanent water, and in the case of the North Pit Extended Study Area, gentle to moderate slopes, the landforms are not those where one would expect to record large and/or complex sites.

It is likely that all recorded artefacts have been displaced by erosion from their original locations, and this is definitely the case with regards to MOCO IF-24 and IF-25.

Therefore it is assessed that the recorded artefacts are not associated with further sub-surface archaeological deposits at their find location. As such, displaced artefacts such as these have a very limited capacity to contribute to the archaeological context of the area and are better described as 'background' artefacts whose original depositional location is unknown.

Figure 11: Location of MOCO IF-23, IF-24 and IF-25 and previously recorded site 37-3-0350.



6 ASSESSMENT OF SCIENTIFIC SIGNIFICANCE

As all newly recorded sites are isolated finds without associated archaeological deposits, all sites have a limited ability to further inform about the past Aboriginal occupation of the Study Areas. As such, sites MOCO IF-21 to MOCO IF-25 are assessed as having **low scientific significance**.

This assessment of scientific significance is consistent with the level of significance afforded similar sites that were recorded as part of the 2012/2013 Mount Owen Continued Operations archaeological assessment.

In the Detention Basin Study Area, a low density artefact scatter (37-3-0350) was recorded in 1996. The site card states that the site has a '**low significance**' (V. Perry [Wonnarua Tribal Council] and T. Griffiths [Wanaruah Local Aboriginal Land Council]). Given what is now known of the Study Area, the current assessment has no reason to revise this assessment.

7 MANAGEMENT OF ABORIGINAL CULTURAL HERITAGE VALUES

7.1 NORTH PIT EXTENDED STUDY AREA

Within the North Pit Extended Study Area, two isolated finds were recorded. As recommended in **Table 2**, a prudent management measure is to collect the artefacts prior to the works commencing so that they are removed from harm and the basic artefact attributes are recorded. A report of the salvage program should be produced to record these details for future research.

Table 2: Management recommendations for sites within the North Pit Extended Study Area.

Site Number	Assessed scientific significance	Degree of Harm	Comments	Management strategy
MOCO IF-21	Low	Total	Isolated find without associated deposits	Mapping, description and collection of surface artefact
MOCO IF-22	Low	Total	Isolated find without associated deposits	Mapping, description and collection of surface artefact

7.2 DETENTION BASIN STUDY AREA

Within the Detention Basin Study Area, three isolated finds were recorded. In addition, there is one extant, previously recorded, low density artefact scatter (37-3-0350) located within the Study Area. The precise design of the Detention Basin is, at present, not known. However, when the design plans are finalised, if any of the sites are to be impacted the management measures as recommended in **Table 3** should be undertaken and include collection of the artefacts prior to the works commencing so that they are removed from harm and the basic artefact attributes are recorded. A report of the salvage program should be produced to record these details for future research.

Table 3: Management recommendations for sites within the Detention Basin Study Area.

Site Number	Assessed scientific significance	Degree of Harm	Comments	Management strategy
MOCO IF-23	Low	Not finalised	Isolated find without associated deposits	Mapping, description and collection of surface artefact
MOCO IF-24	Low	Not finalised	Isolated find without associated deposits	Mapping, description and collection of surface artefact
MOCO IF-24	Low	Not finalised	Isolated find without associated deposits	Mapping, description and collection of surface artefact
37-3-0350	Low	Not finalised	Low density artefact scatter consisting of four artefacts	Mapping, description and collection of surface artefacts

8 RECOMMENDATIONS

The following recommendations shall be added to the already existing recommendations contained in the November 2013 Archaeological Values Assessment.

1. The information contained within the summary document will be incorporated into the November 2013 Aboriginal Archaeological Values Assessment;
2. The five newly recorded sites should be registered with the Office of the Environment and Heritage's Aboriginal Heritage Information Management System;
3. Sites MOCO IF-21 to IF-22 should be included within the salvage program for the Project;
4. Should MOCO IF-23 to IF-25 and 37-3-0350 be impacted by the final design of the Detention Basin, they should be included in the salvage program for the Project; and
5. All sites are assessed as having a low scientific significance and therefore a surface collection of artefacts is an appropriate management measure.

9.2.6 Stage 3 - Notification of Cultural Values Site Visits and Workshop

Mount Owen issued a letter on 22 May 2014 seeking expressions of interest from all 24 Community RAPs to visit the proposed extension area for a cultural values assessment and workshop to be facilitated by ACHM on 5 June 2014.

A similar letter was mailed to all 27 WTC members to see if they were interested in visiting site to conduct their own cultural values assessment on 12 June 2014. Similar letters were also mailed to the 2 PCWP and the 5 WN RAPS to ask if they were interested in visiting site to conduct their own cultural values assessment on a day of their choosing. The smaller groups could be accommodated with the use of light vehicle transport whereas the larger groups would require 4WD bus for transport to the extension area.

The following four letters are examples of those mailed to RAPs from the Community, WTC, PCWP and WN groups.

GLENCORE

21 May 2014

David Ahoy
5 Killara Drive
Cardiff South NSW 2285

Dear David,

Subject: Mount Owen Continued Operations Aboriginal Cultural Heritage Assessment (ACHA) Process

Mount Owen Pty Ltd, through consultation with the Mount Owen Continued Operations (MOCO) Project's registered Aboriginal parties and knowledge holders, completed an Aboriginal Cultural Heritage Assessment Report for the proposed Project Area and lodged the report and attachments to the Department of Planning and Infrastructure for its review in December 2013.

Due to unforeseen circumstances the MOCO Project's description requires modification. The majority of these changes to the Project are in areas already approved to be disturbed for mining operations. Other changes have added an additional 22ha extension to the 464ha of proposed disturbance assessed in the ACHAR in 2013.

On 29th April 2014, the extension area was surveyed by rostered members of the Project's registered Aboriginal parties along with Ben Churcher and Jennifer Bertolani (OzArk). Two small isolated artefacts were found in the extension area and three in an area near the Mount Owen access road that was also surveyed for a possible minor dam location. OzArk have prepared a summary of the archaeological survey results. These results are attached for your information.

Mount Owen invites you to visit the 22ha extension area and discuss whether you wish to add any additional values and recommendations for the modified Project. A full day field visit and workshop has been organised, for 5th June 2014, with Mount Owen staff and Shaun Canning (ACHM). The day will commence at 8.00am at the Ravensworth East Project Office.

If you are interested in attending the site visit please contact me by phone or email before 30 May 2014 so I can arrange transport.

Yours sincerely

Gary Bernasconi
Environment and Community Coordinator
Ravensworth East Office
Glencore
M: 0417 067 591
E: Gary.Bernasconi@glencore.com.au

Private Mail Bag 8, Singleton, NSW 2330
567 Broke Road, Singleton, NSW 2330
T + 61 2 6570 2416 F + 61 2 6570 2520 www.glencore.com

Glencore Coal Assets Australia Pty Limited ACN 163 821 298

GLENCORE

20 May 2014

Helen Faulkner
81 Wansbeck Valley Road
Cardiff NSW 2285

Dear Helen,

Subject: Mount Owen Continued Operations Aboriginal Cultural Heritage Assessment (ACHA) Process

Mount Owen Pty Ltd, through consultation with the Mount Owen Continued Operations (MOCO) Project's registered Aboriginal parties and knowledge holders, completed an Aboriginal Cultural Heritage Assessment Report for the proposed Project Area and lodged the report and attachments to the Department of Planning and Infrastructure for its review in December 2013.

Due to unforeseen circumstances the MOCO Project's description requires modification. The majority of these changes to the Project are in areas already approved to be disturbed for mining operations. Other changes have added an additional 22ha extension to the 464ha of proposed disturbance assessed in the ACHAR in 2013.

On 29th April 2014, the extension area was surveyed by rostered members of the Project's registered Aboriginal parties along with Ben Churcher and Jennifer Bertolani (OzArk). Two small isolated artefacts were found in the extension area and three in an area near the Mount Owen access road that was also surveyed for a possible minor dam location. OzArk have prepared a summary of the archaeological survey results. These results are attached for your information.

Mount Owen invites you to visit the 22ha extension area and discuss whether you wish to add any additional values and recommendations for the modified Project. A full day field visit has been organised, for 12th June 2014. The day will commence at 8.00am at the Ravensworth East Project Office. A bus will be available to transport visitors to the extension area.

If you are interested in attending the site visit please contact me by phone or email before Friday 6th June 2014 so I can arrange transport.

Yours sincerely

Gary Bernasconi
Environment and Community Coordinator
Ravensworth East Office
Glencore
M: 0417 067 591
E: Gary.Bernasconi@glencore.com.au

Private Mail Bag 8, Singleton, NSW 2330
567 Broke Road, Singleton, NSW 2330
T + 61 2 6570 2416 F + 61 2 6570 2520 www.glencore.com
Glencore Coal Assets Australia Pty Limited ACN 163 821 298

GLENCORE

20 May 2014

Scott Franks
Tocomwall Pty Limited
PO Box 76
Caringbah NSW 1495

Dear Scott,

Subject: Mount Owen Continued Operations Aboriginal Cultural Heritage Assessment (ACHA) Process

Mount Owen Pty Ltd, through consultation with the Mount Owen Continued Operations (MOCO) Project's registered Aboriginal parties and knowledge holders, completed an Aboriginal Cultural Heritage Assessment Report for the proposed Project Area and lodged the report and attachments to the Department of Planning and Infrastructure for its review in December 2013.

Due to unforeseen circumstances the MOCO Project's description requires modification. The majority of these changes to the Project are in areas already approved to be disturbed for mining operations. Other changes have added an additional 22ha extension to the 464ha of proposed disturbance assessed in the ACHAR in 2013.

On 29th April 2014, the extension area was surveyed by rostered members of the Project's registered Aboriginal parties along with Ben Churcher and Jennifer Bertolani (OzArk). Two small isolated artefacts were found in the extension area and three in an area near the Mount Owen access road that was also surveyed for a possible minor dam location. OzArk have prepared a summary of the archaeological survey results. These results are attached for your information.

Mount Owen invites you to visit the 22ha extension area and discuss whether you wish to add any additional values and recommendations for the modified Project.
If you are interested in attending please contact me by phone or email by 30th May 2014 to discuss the arrangements.

Yours sincerely,

Gary Bernasconi
Environment and Community Coordinator
Ravensworth East Office
Glencore
M: 0417 067 591
E: Gary.Bernasconi@glencore.com.au

Private Mail Bag 8, Singleton, NSW 2330
567 Broke Road, Singleton, NSW 2330
T +61 2 6570 2416 F +61 2 6570 2520 www.glencore.com

Glencore Coal Assets Australia Pty Limited ACN 163 821 298

GLENCORE

20 May 2014

Laurie Perry
Wonnarua Nation Aboriginal Corporation
PO Box 3066
Singleton NSW 2330

Dear Laurie,

Subject: Mount Owen Continued Operations Aboriginal Cultural Heritage Assessment (ACHA) Process

Mount Owen Pty Ltd, through consultation with the Mount Owen Continued Operations (MOCO) Project's registered Aboriginal parties and knowledge holders, completed an Aboriginal Cultural Heritage Assessment Report for the proposed Project Area and lodged the report and attachments to the Department of Planning and Infrastructure for its review in December 2013.

Due to unforeseen circumstances the MOCO Project's description requires modification. The majority of these changes to the Project are in areas already approved to be disturbed for mining operations. Other changes have added an additional 22ha extension to the 464ha of proposed disturbance assessed in the ACHAR in 2013.

On 29th April 2014, the extension area was surveyed by rostered members of the Project's registered Aboriginal parties along with Ben Churcher and Jennifer Bertolani (OzArk). Two small isolated artefacts were found in the extension area and three in an area near the Mount Owen access road that was also surveyed for a possible minor dam location. OzArk have prepared a summary of the archaeological survey results. These results are attached for your information.

Mount Owen invites you to visit the 22ha extension area and discuss whether you wish to add any additional values and recommendations for the modified Project.
If you are interested in attending please contact me by phone or email by 30th May 2014 to discuss the arrangements.

Yours sincerely,

Gary Bernasconi
Environment and Community Coordinator
Ravensworth East Office
Glencore
M: 0417 067 591
E: Gary.Bernasconi@glencore.com.au

Private Mail Bag 8, Singleton, NSW 2330
567 Broke Road, Singleton, NSW 2330
T + 61 2 6570 2416 F + 61 2 6570 2520 www.glencore.com
Glencore Coal Assets Australia Pty Limited ACN 163 821 298

Bink Creative Pty Ltd
ABN 14 109 841 509
Shop 1, 10–14 North Avenue
PO Box 877, Cessnock NSW 2325
Phone (02) 4990 3230
Fax (02) 4990 2530
info@binkcreative.com.au
www.binkcreative.com.au

Mt Owen Pty Limited

0

Estimate

Date: 22/05/2014
Job #: 105622

MO - Document Printing and Mailout

Printing of A4 Letter (single-sided) on 160gsm Sovereign Offset (variable data printed with individual names). Printing of 18pp A4 Reports on 100gsm Quality Laser paper. Print labels, and insert into C4 Envelopes. Mailout via Australia Post.

E14026 **MAIL MERGE LETTER**

Design costs

Activity	Amount
Project management	$51.48
Design	$182.52
Total	$234.00

PRINTING; A4 Letter and 18pp A4 Report

Printing of A4 Letter (single-sided) on 160gsm Sovereign Offset (variable data printed with individual names). Printing of 18pp A4 Reports on 100gsm Quality Laser paper.

Item	Unit Price	Quantity	Amount
1pp A4 LETTER; QTY 24	*$1.07*	*58*	*$62.11*
REPORT - OPTION 2: 20pp A4 REPORT (as Booklet); QTY 24	*$5.80*	*58*	*$336.30*

Collation, Print & Adhere Labels & Postage.

Envelopes C4 Plain Face Peel & Seal, Print & Adhere LAbels to Envelopes, Insert cover letter and report into envelopes. Seal. Post.

Item	Unit Price	Quantity	Amount
C4 Envelopes (unprinted)	*$0.25*	*58*	*$14.50*
Print Address Labels	*$0.25*	*58*	*$14.50*
Collation, Insert	*$3.79*	*58*	*$220.00*
Postage	*$1.50*	*58*	*$87.00*

THE FINE PRINT
All prices are inclusive of GST. Two rounds of changes are included. Additional alterations will be charged at $145 p/h inc GST.

PAYMENT TERMS
On acceptance of this estimate, design jobs over $1,000 require a commitment deposit of 50% upfront.
Unless otherwise stated, projects are payable 14 days after delivery of service. Print Orders over $1,000 require upfront payment.
All other print orders are payable on delivery (COD). If providing your own artwork, please note that charges may apply if print ready files are not supplied by the client or if print ready files have been supplied incorrectly.
If a project has 'stalled' (more than three weeks of no-action), BINK Creative will invoice for work-to-date (less any payments already made).
20130628

This estimate is valid for two months after date shown.

The Trustee for The LMFT Family Trust
PO Box 877

CESSNOCK NSW 2325

AUSTRALIA

bink creative design studio

TAX INVOICE

Mt Owen Pty Limited
Locked Bag 6015
HUNTER REGIONAL MC NSW 2310
ABN: 83003827361

Invoice Date
22 May 2014

Invoice Number
INV-06626

Reference / Purchase Order
AH156212

ABN
38 266 448 194

Description	Quantity	Unit Price	GST	Amount AUD
PDG, Printing - Digital; MOCO Extension Area Arch Survey Summary and Letters #1 (mail-merge, printing, collate, insert and mailing)	1.00	454.41	10%	454.41

Subtotal	454.41
Total GST 10%	45.44
Invoice Total AUD	499.85
Total Net Payments AUD	0.00
Amount Due AUD	**499.85**

Due Date: 05 Jun 2014

PAYMENT ADVICE

To: The Trustee for The LMFT Family Trust
PO Box 877
CESSNOCK NSW 2325
AUSTRALIA

Customer	Mt Owen Pty Limited
Invoice Number	INV-06626
Amount Due	499.85
Due Date	05 Jun 2014
Amount Enclosed	

Enter the amount you are paying above

WE HAVE CHANGED BANK ACCOUNT DETAILS - PLEASE ENSURE YOU UPDATE PAYMENT DETAILS

Payment via Credit Card: Call (02) 4990 3230 or visit our office.
Payment via EFTPOS: Visit our office.
Payment via Electronic Funds Transfer / Internet Banking:
Acc Name: The LMFT Family Trust BSB: 012-570 Acc Number: 212562574

ABN: 38 266 448 194. Registered Office: PO Box 877, CESSNOCK, NSW, 2325, Australia

The Trustee for The LMFT Family Trust
PO Box 877

CESSNOCK NSW 2325

AUSTRALIA

bink creative design studio

TAX INVOICE

Mt Owen Pty Limited
Locked Bag 6015
HUNTER REGIONAL MC NSW 2310
ABN: 83003827361

Invoice Date
22 May 2014

Invoice Number
INV-06627

Reference / Purchase Order
AH156289

ABN
38 266 448 194

Description	Quantity	Unit Price	GST	Amount AUD
PDG, Printing - Digital; MOCO Extension Area Arch Survey Summary and Letters #2 and #3 (mail-merge, printing, collate, insert and mailing)	1.00	438.69	10%	438.69
			Subtotal	438.69
			Total GST 10%	43.87
			Invoice Total AUD	482.56
			Total Net Payments AUD	0.00
			Amount Due AUD	**482.56**

Due Date: 05 Jun 2014

PAYMENT ADVICE

To: The Trustee for The LMFT Family Trust
PO Box 877
CESSNOCK NSW 2325
AUSTRALIA

Customer	Mt Owen Pty Limited
Invoice Number	INV-06627
Amount Due	482.56
Due Date	05 Jun 2014
Amount Enclosed	

Enter the amount you are paying above

WE HAVE CHANGED BANK ACCOUNT DETAILS - PLEASE ENSURE YOU UPDATE PAYMENT DETAILS

Payment via Credit Card: Call (02) 4990 3230 or visit our office.
Payment via EFTPOS: Visit our office.
Payment via Electronic Funds Transfer / Internet Banking:
Acc Name: The LMFT Family Trust BSB: 012-570 Acc Number: 212562574

eftpos VISA MasterCard

ABN: 38 266 448 194. Registered Office: PO Box 877, CESSNOCK, NSW, 2325, Australia

9.2.7 Stage 3 - PCWP Response to Project change

PCWP member Scott Franks responded to the Mount Owen letter regarding a cultural values assessment of the proposed extension area. The below email states that the PCWP confirm that this small increase in area will not change the significance value of their original cultural heritage assessment.

Bernasconi, Gary (NSW - Coal)

From: Scott Franks <scott@tocomwall.com.au>
Sent: Tuesday, 27 May 2014 3:31 PM
To: Bernasconi, Gary (NSW - Coal)
Subject: Re: Mount Owen Extension Area

Categories: Important

Gary,

Thank you for the update and the opportunity for our people The PCWP to inspect the area in Question. I would how ever like to confirm that this mall area dose not charge or modify the recommendation contained with the Cultural heritage assessment that the PCWP conducted for the MOCCO operation. If you would like any more information or input please contact me.

Regards
Scott Franks

Native Title & Environmental Services Manager

Tocomwall Pty Ltd
PO Box 76
CARINGBAH NSW 1495
m: 0404 171544
p: 02 9542 7714
f: 02 9524 4146
e: scott@tocomwall.com.au
www.tocomwall.com.au

The information contained in this e-mail message and any attached files may be confidential and may contain copyright material of Tocomwall Pty Ltd or third parties. Any unauthorised use, disclosure or copying of this e-mail and/or its attachments is prohibited. If you have received this e-mail in error please notify the sender immediately by return e-mail and delete all copies of the message and attachments. Before opening or using attachments, please check them for viruses or defects. Our liability is limited to resupplying the e-mail and attached files. Content and views expressed in this e-mail may be those of the sender, and are not necessarily endorsed by Tocomwall Pty Ltd.

From: "Gary.Bernasconi@glencore.com.au" <Gary.Bernasconi@glencore.com.au>
Date: Tuesday, 27 May 2014 3:08 pm
To: Scott Franks <scott@tocomwall.com.au>
Subject: FW: Mount Owen Extension Area

Hi Scott,

Further to our discussion last week, the small dam (detention basin area) idea has been discarded in favour of increases to the existing discharge pipes, thus avoiding that area completely. The 'North Pit Extended Area' is the only area of focus that we will need some form of written statement on regarding the significance of cultural values for that area.

Looking forward to receiving your response.

Cheers,

1

9.2.8 Stage 3 - WLALC Response to Project change

The Wanaruah Local Aboriginal Land Council has confirmed that the addition of an extra 21 hectares of disturbance area will not change the cultural values already submitted.

Bernasconi, Gary (NSW - Coal)

From: Wanaruah Local Aboriginal Land Council <wanarua@bigpond.net.au>
Sent: Monday, 16 June 2014 11:23 AM
To: Bernasconi, Gary (NSW - Coal)
Cc: suzieworth17@bigpond.com
Subject: FW: Mount Owen Continued Operations

Categories: Purple Category

Hi Gary,

I have included Suzie in the email regarding the visit.. Please note:

1. At this stage we do not believe the extra disturbance makes any change to the values we have already submitted.

2. The recommendations and conditions we set in previous correspondence still apply, and

3. We are still very disappointed that Glencore continues to use the Xstrata Reconciliation Action Plan as a weapon against the Aboriginal Community to prevent any form of real social impact compensation for the destruction of cultural landscapes and sites

yours truly

Noel Downs
CEO
Wanaruah Local Aboriginal Land Council
02 65431288
04 29773900
P.O. Box 127
Muswellbrook NSW 2333

9.2.9 Stage 3 - Wonnarua Nation Response to Project change

The CEO of the Wonnarua Nation Aboriginal Corporation has provided a statement advising that the addition of the extension area will not affect the original 2013 ACHAR.

Bernasconi, Gary (NSW - Coal)

From: Laurie Perry <l.perry@optusnet.com.au>
Sent: Monday, 30 June 2014 2:06 PM
To: Bernasconi, Gary (NSW - Coal)
Subject: Re: Mount Owen Extension Area

Importance: High

Hi Garry

After discussions with Rebecca Lester who visited the site on the 18th June 2014 the addition of the extension area will not affect the original 2013 ACHAR.

Cheers

Laurie Perry
CEO
Wonnarua Nation Aboriginal Corporation
Ground Floor 254 John St Singleton NSW
PO BOX 3066
Singleton Delivery Centre 2330
Ph: 02 6571 8595
Fax: 02 6571 8551
Mob : 0412 593 020
ABN: 50 012 829 925
Email:wonnarua@bigpond.com
Home : l.perry@optusnet.com.au
Website: www.wonnarua.org.au

9.2.10 Stage 3 - WTC Response to Project change

A cultural values site visit was undertaken by WTC Elders on 3rd July 2014. The following people attended the cultural values site visit.

Attendance sheet – Thursday 3rd July 2014, Mount Owen Continued Operations Project

Name	Agency	Address	Email Address	Phone	Time in	Time Out
PETER ALLAN	W.T.C.	18 BLAIRMONT ST QUIRINDI 2343			800AM.	4pm
Robyn Lipwicki	W.T.C	25 Wall ~~St~~ Close CHARLESTOWN			800. AM	4pm
PATRICIA HAMPTON	W.T.C.	35 Larnook ST TAMWORTH			8.00 AM	4pm
ROMA SANFORD	W.T.C	216 Hawker St Quirindi			8.00AM	4pm
Susan Wilson	W.T.C.	3/221 Hawker St Quirindi			8.00AM	4pm
SANDRA ALLAN	WTC	15 BLAIRMONT ST Quirindi		0431467649	8.00am	4pm
MYRA ALLAN	WTC	16 PITTSFORD ST QUIRINDI			8.00cm	4pm
PATRICIA CARTER	WTC	P.O. BOX 43 ABERMAIN NSW 2326	pat.copper@yanneen.com.au	0407782751	8:AM	4pm

The WTC Elders presented Mount Owen staff with the following letter at the conclusion of the Cultural Values Site Visit.

3/July/2014.

Visit by WTC elders of the 21 Lebir proposed disturbance for MT Owen project.

Attendance as per log book.

Elders visited site by bus.
No cultural significant was noted in the area other than the sites discussed in the 2013 report.
Elders re confirmed the importance of the Bowen Creek report sites.

This report is the view of the Elders who was involved in the site visit on the 3rd July 2014

WTC ELDERS.
Myra Allan
Sandra Allan
Susan Wilson
Patricia Hamlet
Robyn Lipinski
Ronica Stanford
Peter Allan.
Plapper

9.3 OzArk Archaeological Values Assessment - Addendum Report

Stage 4 - Review of draft cultural heritage assessment report

Example of cover letter attached to 'Addendum to the November 2013 ACHAR'.

GLENCORE

17 July 2014

«First_Name» «Surname»
«Address»
«Town_Postcode»

Dear Name,

Subject: Mount Owen Continued Operations Aboriginal Cultural Heritage Assessment (ACHA) Process

Mount Owen Pty Ltd, through consultation with the Mount Owen Continued Operations (MOCO) Project's registered Aboriginal parties and knowledge holders, completed an Aboriginal Cultural Heritage Assessment Report for the proposed Project Area and lodged the report and attachments to the Department of Planning and Infrastructure for its review in December 2013.

Due to unforeseen circumstances the MOCO Project's description required modification. The majority of these changes to the Project are in current mining leases areas. However, other changes have added an additional 21ha extension to the 464ha of proposed disturbance area assessed in the ACHAR in 2013.

The attached document is an addendum to the *Aboriginal Cultural Heritage Assessment Report* which was published in September 2013. The findings in this 'MOCO Project Addendum Report' are the compilation of recent archaeological survey and cultural heritage assessments that apply to the 21ha extension area and should be read with reference to the original 2013 report.

Mount Owen has issued this document as a draft report to those MOCO Registered Aboriginal Parties for a review period of 28 days until Wednesday 20th August 2014.

If you are interested in providing further comments for addition to the Addendum report, please use the contact details shown below.

Yours sincerely

Gary Bernasconi
Environment and Community Coordinator
Ravensworth East Office
Glencore
M: 0417 067 591
E: Gary.Bernasconi@glencore.com.au

Private Mail Bag 8, Singleton, NSW 2330
567 Broke Road, Singleton, NSW 2330
T + 61 2 6570 2416 F + 61 2 6570 2520 www.glencore.com

Glencore Coal Assets Australia Pty Limited ACN 163 821 298

Quote for printing Addendum to ACHAR.

Bink Creative Pty Ltd
ABN 14 109 841 509
Shop 1, 10–14 North Avenue
PO Box 877, Cessnock NSW 2325
Phone (02) 4990 3230
Fax (02) 4990 2530
info@binkcreative.com.au
www.binkcreative.com.au

Mt Owen Pty Limited

0

Estimate

Date: 18/07/2014
Job #: L06545

MO - ACHAR Addendum Printing & Distribution

Print 65 copies plus cover letter and standard mailing via Asutralia Post.

E14146

PRINTING, COLLATING & MAILING

PRINTING: ACHAR Addendum Booklet: Full colour double-sided A4 on 100gsm paper with plastic spiral binding. PRINTING: Cover Letter: 1pp A4 on 160gsm Sovereign Offset.

Item	Unit Price	Quantity	Amount
PRINTING: ACHAR AddendumBooklet	*$26.53*	*65*	*$1,724.50*
Mail-merge Letter and Labels	*$2.23*	*65*	*$145.00*
PRINTING: 1pp A4 Letter	*$0.92*	*65*	*$59.85*
C4 Envelopes	*$0.35*	*65*	*$15.25*
PRINTING: Address Labels	*$0.35*	*65*	*$15.25*
Setup Mail-merge, Collate	*$225.00*	*1*	*$225.00*
AUSTRALIA POST DELIVERY - OPTION 1: Large Letter (Up to 260mm x 360mm x 20mm and up to 500g)	*$3.50*	*65*	*$227.50*
AUSTRALIA POST DELIVERY - OPTION 2: Registered Post Letter (Incl Delivery Tracking, Signature on Arr	*$5.90*	*65*	*$383.50*

THE FINE PRINT
All prices are inclusive of GST. Two rounds of changes are included. Additional alterations will be charged at $145 p/h inc GST.

PAYMENT TERMS
On acceptance of this estimate, design jobs over $1,000 require a commitment deposit of 50% upfront.
Unless otherwise stated, projects are payable 14 days after delivery of service. Print Orders over $1,000 require upfront payment.
All other print orders are payable on delivery (COD). If providing your own artwork, please note that charges may apply if print ready files are not supplied by the client or if print ready files have been supplied incorrectly.
If a project has 'stalled' (more than three weeks of no-action), BINK Creative will invoice for work-to-date (less any payments already made).
20130628

This estimate is valid for two months after date shown.

Email request from WTC for an additional cultural heritage site visit.

Bernasconi, Gary (NSW - Coal)

From: Des <deshickey@bigpond.com>
Sent: Tuesday, 5 August 2014 11:10 PM
To: Bernasconi, Gary (NSW - Coal)
Subject: Fw: Letter request remaining elders visit Mount Owen
Attachments: Wonnarua Traditional CustodiansMOUNTOWEN5082014.pdf

Categories: Important

From: Des Hickey
Sent: Tuesday, August 05, 2014 9:50 PM
To: Gary Bernasconi
Subject: Letter request remaining elders visit Mount Owen

Dear Gary and Gary
Please find attached copy of our correspondence request for the Elders who were not able to attend site last month to please be able to attend site and make comment regarding the proposed extension area
Kind regards Des Hickey on behalf of the WTC

The above email contained the following attachment.

Wonnarua Traditional Custodians

5/8/2014

Wonnarua Traditional Custodians Native Title claimant group

Mount Owen Project

Gary Boland

Gary.Boland@glencore.com.au

Gary Benasconi

Gary.Bernasconi@glencore.com.au

Dear Gary and Gary

The WTC spokespersons met recently to discuss the representation and Elders visit to the Mount Owen site which unfortunately came at a time when we had a number of Elders constraints including Sorry Business As a result only 8 of the 18 Elders were able to attend on the day.

The WTC members met recently and identified that the Elders with the closest attachments to the Mount Owen area were most affected and unable to attend the site on the planned day.

Due to the conflicts and violence that has occurred both on the site and in the region, we believe it is important to see if it is possible to have a time set aside for these Elders to attend the site and provide assessment and comment

Could you please advise if this is possible and also what are the preferred days that Glencore Mount Owen could arrange in order to allow for comment and site statements from our 10 elders

We would appreciate your serious and favourable consideration

Thanks Des Hickey on behalf of the Wonnarua Traditional Custodians

Mount Owen replied to the above request with the following email.

Bernasconi, Gary (NSW - Coal)

From: Des <deshickey@bigpond.com>
Sent: Thursday, 7 August 2014 11:20 AM
To: Bernasconi, Gary (NSW - Coal)
Subject: Re: Letter request remaining elders visit Mount Owen

Categories: Important

G-Day Gary
The WTC reps are having a meeting tonight I will get back to you tomorrow morning'
Cheers' Des

From: Gary.Bernasconi@glencore.com.au
Sent: Thursday, August 07, 2014 10:07 AM
To: deshickey@bigpond.com
Cc: Bret.Jenkins@glencore.com.au
Subject: RE: Letter request remaining elders visit Mount Owen

Hi Des,

Please find attached a letter of response to the WTC request to re-visit the Mount Owen Continued Operations Project 'Extension Area'. As requested in the above letter can you please respond by tomorrow so arrangements can be made for the visit by the 10 Elders.

Regards,

Gary Bernasconi
Environment Coordinator
Mount Owen Continued Operations
Glencore

T: 02 6520 2681
M: 0417 067 591
Fax: 02 6520 2700
E: Gary.Bernasconi@glencore.com.au
www.glencore.com

The above email to Des Hickey contained the following attachment.

GLENCORE

7 August 2014

Margaret Matthews; Des Hickey, Luke Hickey, Warren Taggart, Warren Schillings, George Sampson, Tim Smith, Allen Paget and Gordon Griffiths – Native title claimant group spokespersons on behalf of the Wonnarua Traditional Custodians

Dear Des,

Subject: **Request for additional Elder visit**

On receipt of the WTC's request, to conclude their cultural assessment of the additional 21 hectares of disturbance in the Mount Owen Continued Operations Project (the Project) for a visit by 10 Elders, Mount Owen will in good faith, conduct this further final visit.

Mount Owen must document that the ongoing communications from the WTC to Mount Owen is poorly timed, since Mount Owen had completed planned site visits for the Project's Aboriginal Cultural Heritage Assessment on 20 June 2014. The timing of the 'extension area' cultural heritage assessment period was previously communicated to all Registered Aboriginal Parties by correspondence on 16 April 2014. A second WTC visit was arranged outside the 20 June 2014 time frame to accommodate the WTC Elders on 4 July 2014. At this time there was no indication that a further visit was required or expected from the WTC.

The ACHA is currently in its 28 days of review with the Project's Registered Aboriginal Parties and a visit must be conducted prior to the conclusion of that review period on 20 August 2014. Mount Owen is available on 13 August 2014 (next Wednesday), 14 August 2014 (next Thursday), or the 18 August 2014 (next Monday week).

If the WTC could nominate "one" of the dates indicated above by the end of this week, 8 August 2014, including the names of the attendees, the logistics of the day can be organised.

I am available by phone, but Mount Owen has only one week to have this visit completed due to the lateness of the request to visit and assess the 21 hectares of additional disturbance.

Yours Sincerely,

Gary Bernasconi
E&C Coordinator
Ravensworth East Office
Glencore
M: +61 (0) 417067591
E: gary.bernasconi@glencore.com.au

Private Mail Bag 8, Singleton, NSW 2330
567 Broke Road, Singleton, NSW 2330
T + 61 2 6570 2416 F + 61 2 6570 2520 www.glencore.com

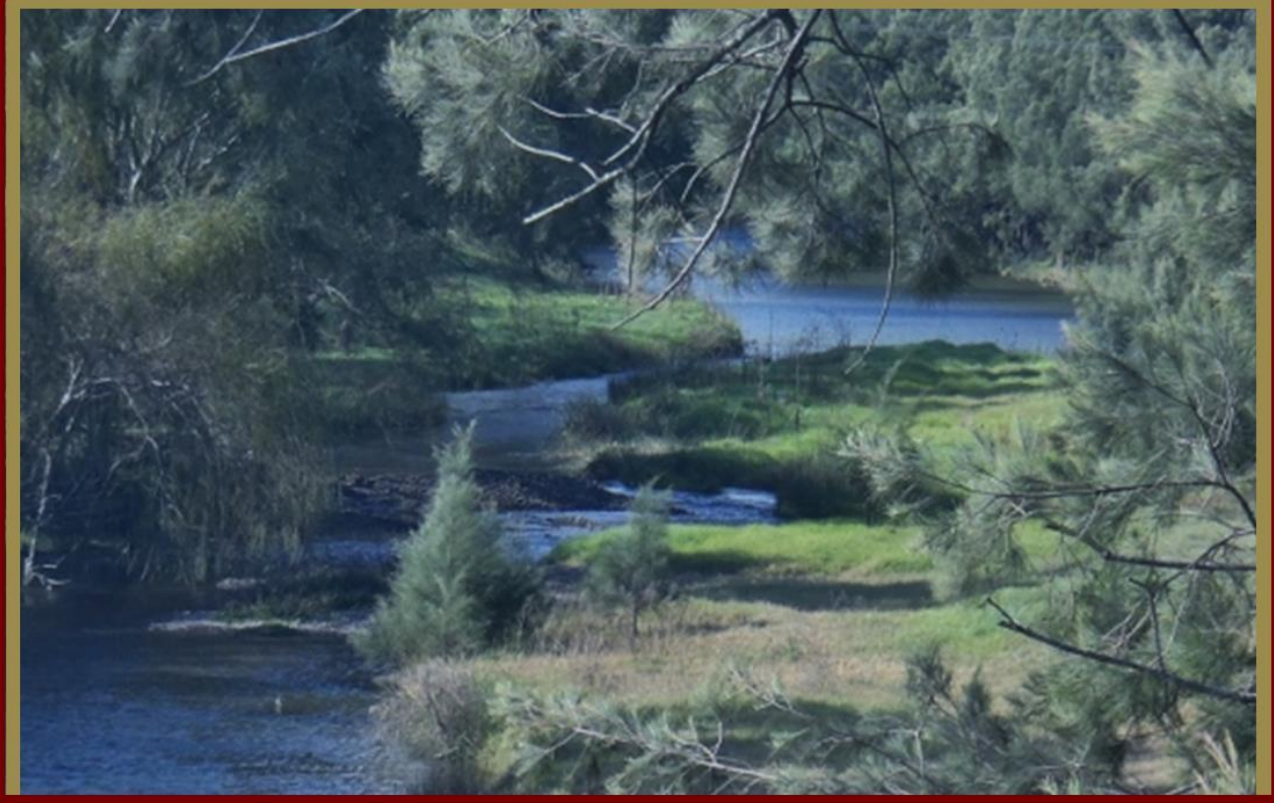
Glencore Coal Assets Australia Pty Limited ACN 163 821 298

No further correspondence has been received from the WTC regarding their 5/8/14 request of a site visit.

During the review period from 24/7/2014 to 20/8/2014, there were no written or verbal submissions received by Mount Owen regarding archaeological or cultural heritage issues in relation to this addendum document.



Plains Clans of the Wonnarua Peoples
Perspective Report



Beginning & Belonging:

The traditional, historical & contemporary cultural landscape of the Mount Owen Continued Operations Project Area: A Plains Clans of the Wonnarua Peoples Perspective.



Tocomwall

Tocomwall PTY LTD
ACN 137 694 618
ABN 13 137694618
PO Box 76
CARINGBAH NSW 1495
info@tocomwall.com.au

Tocomwall Pty Ltd
PO Box 76 Caringbah NSW 1495
Tel: 02 9542 7714 Fax: 02 9524 4146
Email: info@tocomwall.com.au www.tocomwall.com.au
ABN: 13 137 694 618

Gary Boland,
Project Manager Mt Owen Complex
Ravensworth East office
Hebden Road, Ravensworth NSW

8 November 2013

RE: Authorisation for the full public release of the collaborative report titled: *Beginning & Belonging: The traditional, historical and contemporary cultural landscape of the Mt Owen Continued Operations Project Area: A Plains Clans of the Wonnarua Peoples perspective."*

Dear Gary,

As verbally advised the full public release of the above named report is supported by the Heads of Families of the Plains Clans of the Wonnarua People (PCWP). This support is given with the understanding that this PCWP specific cultural values report will appear as a 'stand-alone' document within the integrated Aboriginal Cultural Heritage Assessment Report (ACHAR) being prepared on your behalf by ACHM for inclusion in the Mt Owen Continued Operations Project EIS. It is further understood that this public release will occur only from that point at which the full EIS is to be placed on public exhibition. In the interim the PCWP expects that the document will be released only to the Mt Owen Project Management Team and the relevant Assessment Officers in the Department of Planning and Infrastructure and the Office of Environment and Heritage.

The PCWP (and Tocomwall Pty Ltd) affirm their rights to the intellectual property contained within the report.

Yours sincerely

Scott Franks

Rob Lester

Maria Stocks

R Ward
Rhonda Ward

Integrating Landscape Science & Aboriginal Cultural Knowledge for our Sustainable Future

Tocomwall PTY LTD
ACN 137 694 618
ABN 13 137694618
PO Box 76
CARINGBAH NSW 1495
info@tocomwall.com.au

ACKNOWLEDGEMENTS

This report was prepared in the context of a formal brief provided to Tocomwall Pty Ltd by Glencore Mt Owen. To that end Tocomwall must acknowledge the support of Gary Boland, Gary Bernasconi, Vicki McBride and Bret Jenkins, throughout the Project. In particular Gary Boland has been a steadfast support, encouragement and supplier of technical information as and when required.

Dr Shaun Canning of ACHM is acknowledged for his professionalism with respect to ensuring that the values of the PCWP in the Mount Owen Project area were adequately understood and captured within the integrated ACHAR.

Ben Churcher of OzArk EHM Pty Ltd is acknowledged for his positive commitment to the full investigation of the archaeological values of the Project area, and for his willingness to share information and communicate his understanding of the archaeology to the PCWP.

Finally, Dr Maria Cotter wishes to personally acknowledge the support and trust given to her by the Heads of Family of the PCWP during the preparation of this report. The assistance provided to Maria by archivists at the Regional Heritage Centre at the University of New England is also gratefully acknowledged.

Tocomwall PTY LTD
ACN 137 694 618
ABN 13 137694618
PO Box 76
CARINGBAH NSW 1495
info@tocomwall.com.au

DOCUMENT AUDIT & REVIEW

ITEM	DETAILS	
Project name:	Beginning & Belonging: The traditional, historic and contemporary cultural landscape Values of the Mt Owen Continued Operations Project Area: A Plains Clans of the Wonnarua Peoples Perspective.	
Project number:	CVA_X_1_13	
Proponent:	Glencore Mt Owen Management Pty Ltd	
File location:	L://TOCOMWALL/CONSULTANCIES/Xstrata/MOCO	
Project approval date:	December 2012	
Field assessment period:	December 2012- May 2013	
Field assessments conducted by:	Maria Cotter, Scott Franks, Danny Franks, Malcolm Franks and Jennifer Norfolk	
Report Prepared by:	Maria Cotter & Scott Franks	
Internal Review by:	 Mrs Sarah Franks Accounts & Administration Manager	 Dr Maria Cotter Cultural Landscape Programs Manager
External Review by:	Gary Boland Glencore	
Approved:		
Document Status	Final	
Document Version	Version III	
Last saved	**FEBRUARY 2013**	
Notes	Inc. GB &SF edits Dec 2013	

Commercial in Confidence

Tocomwall Pty Ltd (Tocomwall), its agents or employees, expressly disclaim any liability for representations, expressed or implied, contained in, or omissions from, this report or in any of the written or oral communications transmitted to the client or a third party. Acceptance of this document denotes the acceptance of these terms.

*All information in this report is provided in strict commercial confidence and in accord with the January 2013 Consultancy Services Agreement Between Glencore Coal Management Pty Ltd ("Principal") and Tocomwall Pty Ltd ("Consultant") titled "**Consultancy Services Agreement Mt Owen Coal and Tocomwall Pty Ltd Services on behalf of Plains Clan of the Wonnarua People Native Title Registrant.***

Tocomwall PTY LTD
ACN 137 694 618
ABN 13 137694618
PO Box 76
CARINGBAH NSW 1495
info@tocomwall.com.au

REPORT SUMMARY

Tocomwall Pty Ltd (Tocomwall) was engaged by Glencore Mt Owen NSW to undertake a cultural heritage assessment of the Project Area (the Project) from the perspective of the *Plains Clans of the Wonnarua People* (PCWP). The intent was to provide Glencore Mt Owen with information regarding PCWP specific cultural values identified in the lands and creek systems of the Project. In the first instance, the purpose of the identification and assessment of PCWP specific cultural values is to provide information that will contribute to - and form a separate confidential part of - an integrated Aboriginal Cultural Heritage Assessment Report (ACHAR) that is being prepared as part of the Environmental Impact Statement (EIS) for the Project.

The primary goal of this assessment was to identify the PCWP specific social, historic, scientific and aesthetic cultural values in the Project area. To accommodate Aboriginal kinship relationships to the natural world a cultural landscape approach was adopted for this assessment, and this required consideration of the cultural values held by the PCWP including the biophysical resources of the Project area and its surrounds. In order to identify the PCWP specific cultural values in the Project area, the following tasks were identified:

I. Brief field survey and assessment of the Project impact area with the view to understand the nature of the physical environment and to identify the full range of PCWP specific cultural values within it;
II. Archival research and other desktop review as required to ensure appropriate understanding of the ethnographic, environmental and historical land use contexts of the Project;
III. Documentation of oral histories and/or other commentaries from PCWP members relating to the cultural values of the Project;
IV. Description or mapping of the cultural values of the Project in context of the surrounding landscape;
V. Synthesis of the PCWP cultural values and determination of the significance of items, places, natural resources and/or landscapes of the Project in accordance with accepted significance criteria; and
VI. Articulation of management options for the identified Aboriginal cultural values and resources within the Project. These options are required to address harm minimisation and mitigation; cumulative impact and inter-generational equity; and to do so from the perspective of the PCWP whose cultural heritage it is.

The assessment undertaken clearly demonstrated that the Glencore Mount Owen Complex lies within a cultural landscape of immense social, historic, and ecological resource value to the PCWP. **The Bowman's Creek and Glennies Creek Catchment areas - inclusive of that area in which Mt Owen is situated - are at the epicentre of their cultural existence. It is within and from this landscape that the PCWP begin, persist and seek to reinforce and renew their unique cultural identity.** It lies within a focal area of traditional ceremonial activity and is replete with visual reference points to the prior and ongoing activity of spirit beings. The social values expressed by the PCWP include its immense importance as part of a ceremonial pathway and dreaming track; its proximity to places of ceremony and its consequent functional role as a natural resource rich support locale and initiate teaching area. It is also of significant historical and contemporary social and cultural heritage value to the PCWP.

The PCWP recognise that their cultural values in the Project, though demonstrable and real have been severely compromised by prior and current mining operations both associated with Glencore Mt Owen, and other active mines within near vicinity (including Ashton Coal Pty Ltd, Integra Coal, Glencore Ravensworth mining areas). The compromise has been caused by the physical destruction of *in situ* material culture remains, and ecological resource values within the Project area. This has led to the fragmentation of the cultural landscape and the disjuncture of ceremonial tracks within it. The compromise is current and ongoing as the 'mining aesthetic' affects the visual and sensory perceptions of several other values – particularly the spiritual and archaeological values within the Project area - in a negative fashion.

In the context of the current Project proposal, and with a firm understanding of the immense and multi-faceted nature of the cultural value of the landscape of the Project to the PCWP,[1] it is maintained that consideration of the following mitigation strategies is imperative:

I. Further systematic assessment and/or recording of PCWP cultural resource values within the Project area prior to mine clearance works. This should be conducted with the view of establishing 3D digital models of the existing physical landscape and/or photographic records of the landform and vegetation

[1] noting that these have already been compromised by past land use practices including cumulative mining development over the past 20 years which has led to catastrophic rather than incremental effects to the cultural landscape values of the PCWP within that area that is at the epicentre of their cultural identity .

Tocomwall PTY LTD
ACN 137 694 618
ABN 13 137694618
PO Box 76
CARINGBAH NSW 1495
info@tocomwall.com.au

communities within it as an archival record. This would be expected to be able to be used as a future resource for the development of interactive teaching materials for young Wonnarua without past, current or likely future access to the mine site.

II. Realistic evaluation of the current and future landscape contexts of *in-situ* Aboriginal cultural resources within the Project area. This should include dynamic 3D landform modelling of all likely future mine-induced landform modifications in and around all archaeological sites of Aboriginal cultural value. Conservation of all known Aboriginal objects and their associated physical settings should be assed in the context of their ongoing position within the active mine site so as to reduce any potential to cause incidental and/or incremental compromise of the cultural value of retained sites (and see III below).

III. Active open cut mining is perceived by the PCWP to have a wholly negative and intrusive effect on their Aboriginal cultural landscape, including the Project area. These negative and intrusive effects include:

a. Compromised aesthetic and/or amenity values. PCWP members describe the area about Mt Owen as having been relatively flat to moderately undulating - valley like – until the advent of mining activities within their lifetimes. Hence the actively mined landforms of the Project area (with or without obvious erosional control and/or re-vegetation) are immediately recognised by them as being artificial, and out of context; and simply not capable of effectively supporting and/or sustaining any of their cultural reference points. This is likewise for all existing and future mining voids which are perceived by the PCWP to effectively 'delete' all cultural reference points from the existing landscape.
b. Fragmented and isolated Aboriginal archaeological sites; both from each other and also from their wider cultural landscape contexts; and finally
c. Reduced and/or limited access to known and valued Aboriginal archaeological or cultural sites as a result of the vagaries of mine site activities.

Consequently the PCWP considers it imperative that the conservation of Aboriginal archaeological and cultural sites within the Mt Owen Complex - including all minor and major infrastructure intensive areas - should be considered in the context of any current and likely future impacts.

It is paramount that places of cultural value that are to be retained *in situ* should be considered in light of the possibility of achieving their in-perpetuity conservation. If in perpetuity conservation cannot be supported for such sites then the merit and practicalities of any short-term retention of sites *in situ* within or immediately adjoining active mine works and related infrastructure area should be considered. Where sites are to be fully retained then the focus should be on the active rather than passive management of these sites within the Mine Lease Area. This is to ensure that their cultural values are maintained and/or improved rather than left to deteriorate. This active management process should be incorporated into any Aboriginal cultural Heritage Plan that is to be devised for the Project (and/or the entire Mt Owen Complex) and it should have a yearly reporting/auditing requirement within the Environmental Management Plan (EMP).

IV. Commitment in all current and future mine plans to positive communication of Aboriginal cultural values across the Project area. In general Aboriginal archaeological sites that have been retained *in situ* have been fenced and/or signed "Do Not Enter" and/or "Strictly No Disturbance" (e.g. see front cover photograph) so as to enforce avoidance and thereby mitigate harm to Aboriginal objects. It is the view of the PCWP that to date this negative signage has:

a. failed to actively communicate any positive message regarding the value of this heritage to anyone; and provided no explanation as to why each particular area requires protection (including no explanation of the nature and extent of the material culture and any of its archaeological rarity, 'representativeness' and/or research values, nor of its inherent cultural values to PCWP or indeed its possible gender related cultural sensitivities);
b. Embedded an operational strategy of cultural heritage site avoidance that has elsewhere led to the development of "an out of sight, out of mind" approach to *in situ* archaeological site management and consequently resulted in the deterioration of these sites;

Tocomwall PTY LTD
ACN 137 694 618
ABN 13 137694618
PO Box 76
CARINGBAH NSW 1495
info@tocomwall.com.au

c. Provided no mine site visibility of the positive commitment of Glencore to the recognition and protection of Aboriginal cultural heritage.
d. Allowed for the fragmentation of the Aboriginal cultural landscape of the Project and the compartmentalisation and /or isolation of its component parts.

V. Following from mitigation measure **IV**, irrespective of the prior, current and ongoing status of any and all Aboriginal material culture within the mine site a priority commitment should be made to the development and implementation of a strategic interpretative signage programme across Mt Owen. This signage strategy should aim to actively recognise the full range of traditional, historic and contemporary Aboriginal cultural values in this landscape. The strategy should be iterative and able to accommodate both the active mine area for the life of the mine; as well as those areas to be sequentially subject to rehabilitation.

VI. Financial and logistic support for the development of education materials and extension programs using PCWP cultural knowledge including;

a. The production and development of a primary school reader series aimed at the NSW Schools K-6 Human Society and Its Environment (HSIE) syllabus that introduces primary school children within the Upper Hunter (and beyond) to the concepts, contents and values of Wonnarua cultural and ecological knowledge. A targeted focus would be on the use of these materials to enhance the relevance of literacy aids for Aboriginal schools within the Hunter region;
b. The development of novel Aboriginal cultural awareness training packages that allow for the focused use of materials and knowledge provided by the PCWP. A key component of this training would be their development, implementation and delivery by Tocomwall (as support for the PCWP). The employment of an Aboriginal cultural awareness officer as part of the HR management system across the mine is a warranted component of any ongoing support for this type of training.
c. The development of horticultural extension programs that enable Aboriginal people to be trained and actively participate in mine rehabilitation and revegetation works, (especially where this is integrated with mitigation measure **VII** below).

VII. Support for investigations of the potential horticultural use of plant species of known Aboriginal use and or value for cultural landscape rehabilitation as an integrated component of mine site rehabilitation across the Project area. This would include pre-emptive retrieval of seed at the time of and/or before vegetation clearance works occur. Likewise, it should comprise intensive research on the effective soil inoculation rates for germination of the mid and understorey components of this native vegetation, as it is plants in these storeys that are the most focus of the use and knowledge by the PCWP. This warrants development of horticultural/greenhouse spaces for managing seed collection and propagation and the development of trial sites within the mined landscape for this testing.

This activity would effectively build on the already significant body of scientific research achieved on this mine site in regard to native plant rehabilitation; and by incorporating PCWP specific knowledge - and co-locating it within those previously designated voluntary conservation areas where known Aboriginal objects have been retained - would further enhance these zones; and enable a positive and ongoing involvement of the PCWP within their cultural landscape.

VIII. The development of contractual arrangements for employment of PCWP members in on-ground works such as erection of signage, fencing, tree planting, management of revegetation, feral animal and weed control, earthworks and landscaping, fire mitigation and hazard reduction management. The PCWP recognises that Tocomwall has the capacity to manage such contractual arrangements and has the support of the PCWP to do so within the Hunter Valley.

Tocomwall PTY LTD
ACN 137 694 618
ABN 13 137694618
PO Box 76
CARINGBAH NSW 1495
info@tocomwall.com.au

IX. Commitment to and support for the leverage of funding from the NSW Minerals Council (from the apparently largely inactive Upper Hunter Cultural Heritage Trust[2] to enable the consolidated return of Aboriginal cultural heritage objects collected across the mine site. The PCWP has already sort assistance for this in regard to the Glencore Bulga Optimisation project; and sees that it is of vital importance that a keeping place is found for all cultural materials removed from PCWP lands; and in the returning of their PCWP specific cultural heritage to 'Country'.

X. Following on from mitigation measure **IX,** commitment to and support for the use of some of the previously agreed funding (*i.e*. for the establishment of a Keeping Place or Wonnarura Cultural Teaching and Learning Centre) by Glencore to investigate and implement culturally appropriate and in perpetuity arrangements for the repatriation of Aboriginal objects to the Wonnarua People. The PCWP do not want objects returned to Wonnarua Country if they are not going to be properly curated and/or protected and/or conserved; and in a place that will not be subject to any development pressures into the future.

XI. Further to mitigation measures I**X** and **X;** these do not nullify the PCWPs wish to see a fully funded and operational Wonnarura Keeping Place and Teaching and Learning Centre established within the Singleton LGA. In fact the PCWP see this as being vital to any strategy developed to address the cumulative impact of mining on their heritage. Consequently the PCWP believe that firm commitments not just to the funding of such a building but to all necessary actioning to build such a structure is now required. Strategic support from Glencore to access suitable funding from other of the mines in the Valley via the NSW minerals Council, would be seen as appropriate to help achieve recompense for the loss of the cultural landscape of the PCWP and would be one measure that would afford appropriate redress of cumulative impact and allow for some achievement of intergenerational equity.

XII. If located and repatriated to the Wonnarua Country the stone artefact assemblages that have been collected and removed from the Project via various AHIPs should be systematically analyzed to achieve a synthesis of data across the Project. This analysis should be funded by Glencore as a research program of - and for - the PCWP with support from relevant University sector participants. The research should be collaborative and *designed to answer specific questions that the PCWP have with respect to their heritage.*

XIII. With the clear recognition that the cultural landscape values of Mt Owen to the PCWP are firmly linked to its occurrence within the Bowman and Glennies Creek Catchment areas the PCWP seek logistic support and funding to assist in the declaration of Glennies Creek as an Aboriginal place. For the PCWP Glennies Creek is considered the only major culturally important dreaming track, secular pathway and locale of ritual, ceremony, recreation and resource use that remains substantially intact within the broader Mining Precinct and hence it warrants this level of protection.

XIV. The PCWP have demonstrated a significant and ongoing connection to the area about Mt Owen, the core of which has been related to oral history, and archival and genealogical research on their traditional, historical and ongoing connection to this country. The PCWP seeks funding and/or logistic support to continue this research with the view to understanding the past involvement of their ancestors with the area and linking it with the historic and contemporary stories of this place. Ultimately the PCWP desire to prepare technical and popular information in a variety of media about their story of survival, connection and ongoing custodianship of the cultural landscape within which MT Owen occurs.

Finally, it is important to recognise that:

(i) There is a continuing existence of Aboriginal archaeological sites in the surface and sub-surface of the Mt Owen Complex, and these are coupled with physical attributions across this landscape of European pastoralism and settlement in which the members of the PCWP have

[2] See NSW Mineral Councils, 2012 for information regarding this Trust Fund.

Tocomwall PTY LTD
ACN 137 694 618
ABN 13 137694618
PO Box 76
CARINGBAH NSW 1495
info@tocomwall.com.au

had a historical association and/or continue to participate in (e.g. as fencing contractors, boundary riders, timber-cutters, dingo bounty hunters, rabbit trappers etc.).

(ii) For the PCWP the physical landscape continues to reflect their cultural narrative and has within it loci of social memory and cultural and spiritual meaning to which they can and do continue to refer.

(iii) In contrast to this the PCWP recognise open cut mining to be catastrophic. It removes all loci of cultural and spiritual reference and it is, in this context, beyond their cultural thresholds to adapt.

(iv) In accepting the possibilities of mine approval, the PCWP acknowledge these catastrophic effects to their heritage, and concede them in light of the above measures proposed.

The PCWP maintains that the measures outlined if provided for in the short, mid and long term will enable them to be instrumental in managing the consequences of their decisions for all elements of their heritage within the MT Owen Complex.

> "As I sit here typing this and thinking about all the things that I did in that area growing up nowhere compares with the resounding connection I have to that land. When I was on site conducting the walk over it was like someone had just plugged me in to the power network, once my feet hit the ground all the memories came flooding back. It was challenging to say the least to stand there and contain what I was thinking, feeling and smelling The simple smell of the 'bladey' grass as we walked through it, brought back memories of all the times me and my uncle walked the lands of our people and me being told the stories of what this land means to me, the sight of a grey 'roo' make me think of the hunting, the pets I had as a boy and sharing. How can I be asked to explain this to a machine that has no emotion like mining?"
>
> (Scott Franks. 2013 via email)

Tocomwall PTY LTD
ACN 137 694 618
ABN 13 137694618
PO Box 76
CARINGBAH NSW 1495
info@tocomwall.com.au

TABLE OF CONTENTS

ACKNOWLEDGEMENTS iii
DOCUMENT AUDIT & REVIEW iv
REPORT SUMMARY v
TABLE OF CONTENTS x
LIST OF ABBREVIATIONS xiii
1.0 INTRODUCTION 1
1.1 Document purpose 1
1.2 Document format and preparation 3
1.3 Limitations of this document 4
2.0 THE PLAINS CLANS OF THE WONNARUA PEOPLES 5
2.1 Who are the Plains Clans of the Wonnarua People (PCWP)? 5
2.1.1 The traditional lands of the Wonnarua People 5
2.1.2 Some ethno-historical background 7
2.1.3 Aboriginal occupation of the traditional lands of the PCWP 9
2.1.4 Contact and post contact histories: A brief summary 11
2.2 An introduction to the Heads of Families of the PCWP 17
3.0 THE MT OWEN CONTINUED OPERATIONS PROJECT (the Project) 20
3.1 Introduction 20
3.2 The Project Location 20
3.2.1. Land Tenure 22
3.2.2. Topography 22
3.2.3 Vegetation 22
3.3 The Project proposal 25
3.4. Planning & assessment requirements 25
3.4.1 Development consent requirements 25
3.4.2 Aboriginal cultural heritage, statutory requirements 27
3.4.3 Legislative change and the NP&W Act: 27
4.0 DOCUMENTING THE PCWP VALUES IN THE PROJECT 31
4.1 Introduction 31
4.2 Aims and expected outcomes 31
4.3 Methods and approach 32

4.3.1. First considerations 32
4.3.2. A multi-modal or 'transdisciplinary' approach 34
4.3.3 Cultural values 36
4.3.4. PCWP consultation and participation 37
4.4 Other Aboriginal Cultural Heritage Data: Aboriginal archaeological assessment information 37
4.4.1 Landform and archaeology in the proposed disturbance area: background information 37
4.4.2 Summary Survey Results 38
4.4.2a Mount Owen North Pit Extension Area 38
4.4.2b Bettys Creek Area 41
4.4.2c Bowmans Creek 41
4.4.3 Test Excavations: Description and results 41
4.3.4 State of current archaeological resource 42
4.3.5 Scientific Significance of current known archaeological resource 42
5.0 RECOGNISING THE PCWP VALUES IN THE MT OWEN CONTINUED OPERATIONS AREA: RESULTS 46
5.1 Introduction 46
5.2 Historical values 46
5.2.1 Associative values 46
5.2.1a James Franks and Dr James Bowman. 48
5.2.1b St Clements Church Camberwell 50
5.2.1c Colonial witnesses to 'inter-racial marriage' and related associations 52
5.2.1d Contested colonial terrain 57
5.2.1e The property Sydenham 59
5.2.1f Anglican Church of Australia, St Andrews, Bridgman, Church Cemetery 59
5.2.1f (a) Alice Henrietta Lester 63
5.2.1f (b) Augustus and Alister Lester 64
5.2.1g William 'Billy' Smith 67
5.2.1h John Caleb Franks, 1869-1925. 71
5.2.1h (a) John Caleb Franks and land purchases within the vicinity of 'Ravensworth' 73
5.2.1h (b) John Caleb Franks, Mercy Franks and 'Billy Button', 1884. 81
5.2.1h (c) John Caleb Franks and assault of Annie Dennis, 1893. 82
5.2.1h (d) John Caleb Franks and his 'Wandering Children', 1897. 84
5.2.2 Shared landscapes and Wonnarua traditions 85

Tocomwall PTY LTD
ACN 137 694 618
ABN 13 137694618
PO Box 76
CARINGBAH NSW 1495
info@tocomwall.com.au

5.3 Social values 86
5.3.1. Spiritual values 86
5.3.1a Biami and the creation of Wonnarua Country 87
5.3.1b The "Hairy Men" and other Leery People 89
5.3.1c Totems and Taboos 91
5.3.1d 'Clever Men' 91
5.3.1e Ceremonial places and pathways 92
5.3.1e (i) The Bulga Bora Ground 94
5.3.1e (ii) Bettys Creek Stone Arrangement 97
5.3.1e (iii) Female Initiation sites 97
5.3. 2 Contemporary social and cultural values 98
5.3. 2a Home range and domestic spaces 98
5.3.2a (i) Gatekeeper's Cottage, Glennies Creek Station and associated places 98
5.3.2a (ii) Mt Olive 104
5.3.2a (iii) Mt Pleasant School 107
5.3.2a (iv) Glennies Creek 109
5.3.2b Livelihood and economic values 110
5.4 Aesthetic values 113
5.4.1 Positive aesthetic values 113
5.4.1a Individual artefacts 113
5.4.1b Artefact scatters 115
5.4.1c Flora and Fauna 115
5.4.2 Negative aesthetic values 116
5.4.2a Man-made hills 116
5.4.2b Betty's Creek Diversion 118
5.4.2c Signed sites of 'non-disturbance' 118
5.5 Scientific Values 118
5.5.1 Archaeological values 118
5.5.2 Natural Resource values 121
6.0 The Cultural Values of the PCWP in the Project: A synthesis 124
6.1. An overview statement of cultural value 125
6.2. Summary statements of value relative to *Burra Charter* criteria. 126

6.2.1 Summary statement of historical value: 126
6.2.2 Summary statement of social value 127
6.2.3 Summary statement of aesthetic value 127
6.2.4 Summary statement of scientific value 128
6.3 Statement of cultural heritage significance 128
6.4 Possible Mitigation Measures: The PCWP Viewpoint 128
7.0 Discussion and Recommendations 133
8.0 Concluding Remarks 134
9.0 References 134
10.0 Attachments 142
Attachment 10.1 143
Attachment 10.2 152

LIST OF ABBREVIATIONS

ACHAR	Aboriginal Cultural Heritage Assessment Report
ACHCRs	Aboriginal Cultural Heritage consultation requirements for Proponents (2010)
ACHM	Australian Cultural Heritage Management
AHIP	Aboriginal Heritage Impact Permit
AIM	Aborigines Inland Mission
DECCW	Department of Environment, Climate Change and Water (now OEH – see below)
DGRs	Director General's Requirements
DP&I or DoPI	Department of Planning and Infrastructure
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning & Assessment Act (1979)
HCR CMA	Hunter – Central Rivers Catchment Management Authority
Jnr	Junior
LALC	Local Aboriginal Land Council
LGA	Local Government Area
OEH	Office of Environment and Heritage
NP&W Act	National Parks & Wildlife Act (1974)
NP&W Act Amendment	National Parks & Wildlife Act Amendment (Aboriginal Objects and Aboriginal Places) Regulation (2010)
Mt	Million(s) of Tonnes
Mtpa	Million(s) of Tonnes per annum
NP&W Regulation	National Parks & Wildlife Regulation (2009), also referred as The Regulation
NSWMIC	New South Wales Mineral Industries Council
PCWP	Plains Clans of the Wonnarua People
RAP	Registered Aboriginal party
ROM	Run of Mine
SSD	State Significant Development
Snr	Senior
Tocomwall	Tocomwall Pty Ltd
The Project	Mt Owen Continued Operations Project
The Regulation	National Parks & Wildlife Regulation (2009)
VCA	Voluntary Conservation Area
VCZs	Voluntary Conservation Zones

1.0 INTRODUCTION

As Registered Native Title Claimants the *Plains Clans of the Wonnarua People* (PCWP) **assert their right** to be recognised as traditional custodians of Wonnarua Country. In making this assertion the PCWP acknowledges the ongoing responsibilities and obligations of this custodianship especially in regard to the preservation, maintenance and renewal of the Aboriginal cultural landscape values in, and knowledge(s) of Wonnarua Country; and the transfer of these values and knowledge(s) to future generations.

As traditional custodians of Wonnarua Country the PCWP are only too well aware of the loss of places, items and natural resource use areas of cultural importance to Wonnarua people that has, and continues to occur across the Hunter Valley. Without argument this is a function of land use changes that have occurred since the commencement of European settlement in the Hunter Valley, in or about the early to mid-1820s. In recent decades the scale of loss has increased as a result of the expansion of coal mining and related infrastructure development across the Valley. During this time members of the PCWP have actively involved themselves in Aboriginal archaeological survey and assessment of resource and infrastructure development projects with a view to fulfilling their responsibilities and obligations to their traditional lands. It has sometimes been a difficult task as it has more often than not involved Aboriginal archaeological site clearance and salvage works that have resulted in the, albeit often permitted,[3] destruction of Aboriginal objects and sites throughout the Hunter Valley. Moreover disproportionate emphasis on the investigation and protection of items and places of Aboriginal archaeological significance has also been problematic for the PCWP, who have attempted to articulate other tangible and intangible cultural values within 'their country' without recognition or support[4]. It remains of concern to the PCWP that there is no current regulatory requirement for a proponent to consult with the Aboriginal community regarding their values unless a tangible Aboriginal object is identified within the proposed development area and it is considered likely to be subject to harm or impact by the proposed development activities.

Despite these limitations the PCWP continues to participate wherever possible in Aboriginal cultural heritage projects and development works of likely impact to Aboriginal cultural resources within Wonnarua country. The identification and assessment of the Aboriginal cultural values of the Mt Owen Continued Operations Project Area (the Project) is one such project in which the PCWP has engaged. However this project is, in PCWP terms, unprecedented because the proponent has actively sought and allowed the PCWP scope to identify more than the Aboriginal archaeological values of the Project. Most importantly it has funded Tocomwall Pty Ltd to conduct the identification, assessment and reporting of PCWP specific cultural values in the Project with and on behalf of the PCWP. This report is the record and result of this partnership.

1.1 Document purpose

Tocomwall Pty Ltd (Tocomwall) has been engaged by Glencore to undertake a cultural heritage assessment of the Mt Owen Continued Operations Project Area (the Project) from the perspective of the PCWP. The intent is to provide Glencore with information regarding PCWP specific cultural values

[3] In the terms of an Aboriginal Heritage Impact Permit [AHIP] authorised under the Part 6 [Section 90] provisions of the National Parks & Wildlife Act, 1974.

[4] The recent L&E Court actions of PCWP member Mr Robert Lester being pertinent (i.e. Lester vs Aston Coal Pty Ltd and Anor, 2011).

identified in the lands and creek systems of the Project. Tocomwall understands that in the first instance, the purpose of the identification and assessment of PCWP specific cultural values is to provide information that will contribute to - and form a separate confidential part of - an integrated Aboriginal Cultural Heritage Assessment Report (ACHAR) being prepared by Australian Cultural Heritage Management (ACHM) with the view to enable Glencore to meet its statutory requirements for Project approval. This ACHAR is expected to include:

- an archaeological survey and assessment report for the Project prepared in accordance with the following documents:
  - *Aboriginal cultural heritage consultation requirements for proponents 2010* (DECCW, 2010a);
  - *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW 2010* (DECCW, 2010b); and the
  - *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH, 2011c).
- A synthesis of the cultural values of the Project identified by any and/or all other Aboriginal parties that registered an interest in the Project; inclusive of a comprehensive record of the consultation processes used to identify these values.
- A statement or statements of the cultural significance of the Aboriginal cultural heritage items, places and/or values identified across the Project, and
- An assessment of the impacts of the Project proposal on these cultural values and consideration of options for mitigation and management of these values in the context of any likely or identified impacts.

Tocomwall is committed to the principles and practices of cultural heritage assessment and management outlined in the *Burra Charter* (ICOMOS Australia, 1999) hence the more specific purpose of this document is to identify and report the following Aboriginal cultural heritage values of the Project in so far as they are articulated by the PCWP:

- Aesthetic values (where applicable at the individual site , local area and/or landscape scale),
- Social values (including traditional, contemporary, spiritual & secular values),
- Scientific values (including the archaeological; traditional ecological & contemporary biodiversity values), and
- Historic values.

The latter may include values derived from archival records of the association of the Project with Aboriginal individuals or groups of importance at the local and/or State level; and/or archival, and/or direct testimony association with historic events or factors, that have affected/influenced Aboriginal knowledge of and engagement with the Project; as well as the oral history values derived from direct testimony by current PCWP members.

In so far as these values are to be identified and reported by Tocomwall the further purpose of this document is to ensure that it is both a stand-alone account of the cultural values of the PCWP in the Project—that meets all the requirements and expectations of the PCWP (and Tocomwall) with respect

to issues of confidentiality and intellectual property — and a document that allows for its findings and/or recommendations to be integrated into the ACHAR and hence be available for scrutiny as part of the Project approvals process. The primary mechanism by which this is to be achieved is for the document to be made available solely to the Mt Owen Continued Operations Project Management Team (Mt Owen Mgmt) for review; and confidential referral to the Department of Planning and Infrastructure (DP&I) and the Office of Environment and Heritage (OEH).

1.2 Document format and preparation

The document is presented in a conventional report format so as to facilitate its inclusion in an integrated ACHAR for the Project. Though mindful of meeting PCWP protocols with regard to the sharing of information about Wonnarua country, wherever practicable the document has sought to adhere to the reporting conventions outlined in the *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH, 2011a). The language of the report is styled so as to enable it to be subject to agency review. It is not language targeted at the broader membership of the PCWP but has been subject to editing and evaluation by the respective Heads of Family of the PCWP.

The document has been prepared by Dr Maria Cotter with review by Mr Scott Franks of Tocomwall. A brief biography with summary of the experience and expertise of each is provided below.

Mr Scott Franks (Company Director & Native Title & Environments Manager). Scott is an Aboriginal businessman and entrepreneur with a passion for his heritage. He is a Registered Native Title Claimant for the *Plains Clan of the Wonnarua People.* He is a traditional Aboriginal knowledge holder with wide experience in the identification of Aboriginal ecological and cultural values, especially within *Wonnarua* Country. He has been recognised to be an Aboriginal cultural heritage specialist in the NSW Land & Environment Court and has 17 years of in-field Aboriginal archaeological field survey, excavation and site interpretation experience.





Dr Maria Cotter (Cultural Landscapes Programs Manager). Maria is a geoarchaeologist with more than 20 years of experience in Aboriginal archaeology and cultural heritage resource management. In the period 2006 to 2010 she worked as a Regional Archaeologist for the Department of Environment, Climate Change & Water (DECCW). During this time Maria provided regulatory advice to proponents regarding a diverse range of mining, major infrastructure, commercial and residential development projects. Maria has extensive Aboriginal oral history and natural resource use recording experience - achieved through research roles in the *Gamilaraay Resource Use Project* (NSW) and the *Gooreng Gooreng Cultural Heritage Project* (SE Qld); and reinforced by her more recent regulatory and consultant roles.

1.3 Limitations of this document

Tocomwall recognises that for the cultural values of the PCWP in the Project to be identified and assessed, it is necessary to first provide sufficient biophysical and sociocultural data relating to the area so that there is a context for the values described. Due to time constraints, though analysis of these attributes has been made, for the large part the information regarding the historical, ecological, topographical and geomorphological characteristics of the Project is that provided to the consultant by the proponent. The document is further limited to the use of this material only for characterisation of those parameters of relevance to the specific articulation of the cultural values of the PCWP. For broader understanding of these attributes review of the full EIS is required.

This document reports the methods used and the outcomes of the second opportunity provided to the PCWP to record and evaluate its own cultural values in an infrastructure development context. The information presented therefore results from a generally novel (but most welcomed) exercise. To the extent that information from the first ever exercise undertaken to document the PCWP values in Wonnarua Country (i.e. Tocomwall, 2012) is relevant, it has been included here, sometimes with limited or no alteration. This is purposeful and a result of the fact that the cultural heritage values the PCWP hold in the Mt Owen Project Area are those from the same physical, spiritual and perceptual realms as those derived for this prior study area. Likewise, the PCWP is a recognised native title claimant group, with verifiable cultural connections to Wonnarua Country that derive from genealogical links that are constant as to people and places of storied reference.

Preparation of this document has been challenging. The majority of this challenge has related to (a) the need to gather and collate disparate sources of evidence, (b) time-pressures arising from PCWP involvement in activities focused on protecting their cultural heritage from other mine and infrastructure related developments; and (c) the ill-health and/or variable availability of key informants. Overall these have had impacted on the timeliness of reporting. With regard to this issue Tocomwall acknowledges the flexibility and patience demonstrated by Glencore Mt Owen in enabling this document, and its primary goal of comprehensively documenting the PCWP cultural values in the Project, to be realised. Mr Gary Boland is to be especially acknowledged for his commitment to supporting the delivery of a document fully reflective of the depth of cultural knowledge and value of the PCWP in the Project Area despite exceedingly tight and pressurised EIS scheduling and mine deadlines.

It is acknowledged that, through the participation of Tocomwall staff the PCWP has had representation and involvement in all expected [required] facets of the archaeological survey and test excavation. Nevertheless, and despite the recognised cooperative approach undertaken by the relevant consultant (OzArk, EHM Pty Ltd), the PCWP still have some concern that the archaeological (or scientific) values of the Project have been dealt with separately from the 'social', 'spiritual', 'historical' and 'aesthetic' values of the Project area. All material cultural items across the Project are, in the terms of the PCWP, a direct result of the technological expertise and resource use knowledge of their ancestors and therefore are of inherent value to the PCWP. To address this perceived limitation in so far as it has been possible to do so this document has endeavoured to report and discuss some of the archaeological [and more broadly] the scientific values recognised by the PCWP in the Project.

2.0 THE PLAINS CLANS OF THE WONNARUA PEOPLES

2.1 Who are the Plains Clans of the Wonnarua People (PCWP)?

The PCWP are a registered Native Title Claimant group with extended familial or clan links to the hills and plains of the central and upper Hunter Valley. The PCWP assert that these clan links provide a continuity of connection with the Hunter Valley that extends back to the time at or before first sovereignty. This connection is based on well-established societal norms including the recognition of spiritual beings and places, rights and responsibility in 'Country' and the hunting, gathering and sharing of resources within the boundaries of 'Wonnarua' country. The PCWP recognises two apical ancestors namely 'Mary' the mother of Matilda Smith (nee Hughes) and 'Emily', the mother of Henry "Harry" Taggart as providing these traditional and continuing genealogical links to their claimant lands. The absence of further apical ancestors with both traditional and continuing links to Wonnarua country within the claimant group is readily attributed to issues associated with the first contact and later engagements of the PCWP with European settlers including:

- the active military suppression of the Wonnarua in the 1820s (see Gollan, 1993; Millis,1994);
- health issues including susceptibility to introduced diseases such as smallpox as well as inherent factors like high infant mortality rates (Le Maistre, 1996);
- the decline in access to habitable areas due to alienation of land by white settlers and reduction in food resources as native animals were culled to increase the stocking rates of domestic animals (Threlkeld, *c*. 1828-1846; Noble, n.d.);
- the need to cohabit on pastoral properties, or to move off country and into fringe camps and or Aboriginal Reserves(Noble, n.d.); and the
- resistance to actions of the settler community to try and Christianise the Wonnarua people and devalue their customary ways (Lester, 2012).

2.1.1 The traditional lands of the Wonnarua People

Ethnographic accounts and anthropological notes written in the mid-to late 19th century indicate that the traditional territory of the Wonnarua extended over a two thousand square mile area of land that included the Hunter River and all its tributaries from within ten miles of Maitland to the apex of the Liverpool Ranges (*e.g*. Miller, 1886, Fawcett, 1896a,b). This is the territory within which the PCWP claim Native Title interest (Figure 2.1). From the earliest records the smaller social and/or family groups of the Wonnarua were described by the Europeans with reference to the place names of the areas in which they gathered and/or were to be found (Le Maistre, 1996). Thus for example, those Aboriginals first noted in the diary entries of John Brown (Brown, *c*. 1825) as being within the vicinity of Glendon Estate later became known as the 'Glendon Blacks,' those within the area about Singleton were described as the 'natives of Patrick Plains' (Le Maistre, 1996) and those near Wollombi as the 'Wollombi blacks' (*e.g*. by Breton, 1834:219). These are of course colonial attributions of names to apparent community aggregations that may or may not have accurately reflected the kinship units and group ranges that existed at this time within Wonnarua society. Hence in the 1826 Sydney newspaper reportage of an attack by Aboriginals on Captain Lethbridge's Station, Bridgman (to the east of the Project area) the following description was supplied:

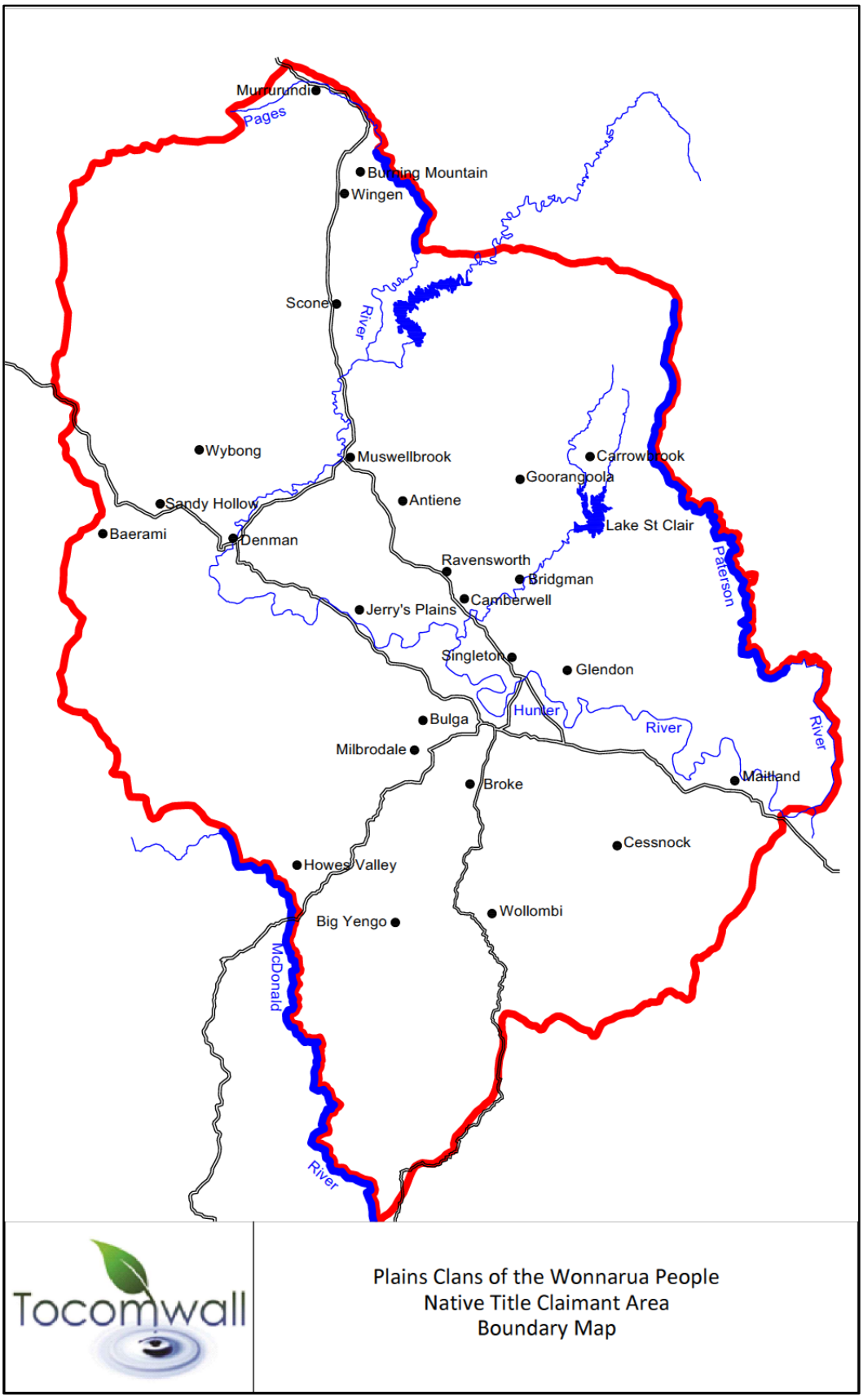


Figure 2.1. Boundary Map of the Native Title Claimant Area of the Plains Clans of the Wonnarua peoples.

> "The Mountain Blacks, in the neighbourhood of Glenny's Creek [sic], in one of the more remote districts of Hunter's River, have again not only been troublesome, but also evinced a spirit of revenge…"
>
> (*The Sydney Gazette and New South Wales Advertiser*, Saturday 9 September 1826).

In this case the choice of naming the Aboriginal group involved as either 'Mountain Blacks' or "Glennys Creek Blacks" appears quite arbitrary. It is an attribution of geographic association that shows no comprehension of the likelihood that for the Aboriginal party involved the entire course of "Glenny's Creek", from its more mountainous headwaters to its lower floodplain adjoining the Hunter River, was part of their traditional home base and resource range.

2.1.2 Some ethno-historical background

Early anthropological observations described the Wonnarua as being intensely religious and constrained by strictly enforced laws (Ridley, 1864; Fawcett, 1896a). Likewise tribal boundaries were well-defined and understood both by the Wonnarua and by neighbouring tribes such that:

> "So strictly were all rights and privileges understood, that for one tribe to enter into the district in pursuit of game was considered an offence of great magnitude and a good ground for a hostile meeting. They had no permanent settlements but roamed around from one place to place within their tribal district in pursuit of game and fish, which was their chief sustenance, making periodically of the same camping grounds, generation after generation, unless some special cause operated to induce them to abandon them. In choosing the site, proximity to fresh water was one essential, some food supply a second, whilst a vantage ground in case of an attack from an enemy was a third important item."
>
> (Fawcett, 1896a: 152).

One early observation of Aboriginal tribal interactions within the Hunter River area suggests that confrontation or 'hostile meetings' between them involved ritualised dress and took place according to strict codes of behaviour that enabled no one to be harmed despite spears, boomerangs and waddies being involved:

> "There was a large fight in the neighbouring mountains between the tribes of Port Stephens and Hunter's River. Remembering the old proverb, "Those who in quarrels interpose," and supposing there would be a good deal of blood spilt on the occasion I had no particular fancy to visit the scene of action. The army under king Bungaree I met proceeding to the field with all the ferocity that dabs of pipe-clay and smears of red-ochre could produce. They were armed with spears, bommarings, and waddies, and from their erect and frowning front seemed sensible of the high emprise in which they were embarked, and impressed the passing stranger with ideas of blood and slaughter. On observing us, his majesty and several of his staff defiled *to where* we stood, and condescended to ask for a bit of tobacco! The next day, instead of hearing of long lists of killed and wounded, it turned out that nobody was hurt, but that every precaution had been taken to enable them to "fight another day."
>
> (The New Monthly Magazine, 1828:241).

This same observer also described how for the Wonnarua mourning and remembrance of the dead was also governed by strict protocols:

> "One old black was plastered nearly all over with pipe-clay, and cut a grotesque figure, not unlike "Moon" in the masquerade. He had lost his wife—and this is their deep mourning. I asked what his *jin's* name was, when he very plaintively replied, "What for, massa, you make me cry?" It appears that a black's name is never mentioned after death; and any of the family or tribe bearing the name of the deceased, are forthwith christened afresh, in order that no fond remembrance may be cherished of their loss."
>
> (The New Monthly Magazine, 1828:241).

Societal restrictions were also placed upon the Wonnarua with respect to the consumption of certain foods. Fawcett describes elements of these restrictions as follows:

> "They had laws regarding the use of food which were very imperative. The young of both sexes were prohibited from eating certain sorts of flesh, and many animals and birds were tabooed to both youths and females at different periods of life. Previous to the passing of the ceremonies of the bora by which the boys were initiated into manhood, their food was like that of the women confined to female animals, and those only of special kinds. Flying foxes were esteemed great delicacies, and the dingo was reserved for the use of the older men only. Emu and black snakes were also reserved for special individuals and seasons."
>
> (Fawcett, 1896a:152).

Complex ceremonial rites were also practiced by the antecedents of the PCWP. Individuals were subject to one group of rites at about the age of sixteen when ceremonies took place that involved having a front tooth knocked out, the septum of the nose pierced and the painful operation of being scarred on the back, shoulders, stomach and occasionally the legs (Miller, 1886: 353). This latter scarring provided the necessary indication of 'status' and kinship with the clan group. Also at about the same age the males were made young men with many 'secret ceremonies' (Fawcett, 1896 a, & b). In his manuscript titled "*The History of Bulga near Singleton N.S.W. from 1820 to 1921"* long term resident of the Bulga District, Mr A.N. Eather provides his recollection of the commencement process undertaken for a ceremony that initiates or 'Boombats' known to him some 50 years prior (i.e. about 1870s) were to attend:

> "We had some young blacks in my house, fifty years ago, and the older blacks would come to us, and ask us to allow these lads off for a time to be made "boombat". Sometimes the boys would be away for the best part of a year. Sometimes the old men would bring back the boys in short time, saying that things were not ready for the Bora, that the other blacks were slow in coming up, and so forth, and that the ceremonies could not go on then; but usually all the men, the lads, and the "jins" went off together to the appointed place of meeting. At night time wherever they camped, several of the men would go off in different directions and make frightsome noises all around, scaring the "jins" almost out of their wits, and awing the boys. Thus matters would go on until they reached the big camp of assembly".
>
> (Eather, *c*. 1921).

Traditional life for the ancestors of the PCWP was structured around a schedule of social interaction designed to take advantage of seasonal availability of resources (Brayshaw, 1966, 1986). Though subject to seasonal extremes of drought and flood, there was both an abundance and diversity of plant and animal life within Wonnarua territory. Fawcett notes for example that:

> *"*For food they ate kangaroos, wallabies, bandicoots, kangaroo rats, opossums, rats, emus, snakes, lizards, fish, caterpillars, grubs, lava of wasps and other insects, etc., and other animals, birds, reptiles, etc., found in their district. They used also a variety of bush fruits and roots, one of the latter being that of the water lily."
>
> (Fawcett, 1896a:152).

Robert Miller (1886), who lived in the Hunter River district for some time from at least the 1840s, also confirms that the kangaroo and emu were usual foods of the Wonnarua, as were a number of reptiles, and a variety of roots including those of the water lily. Berries and fruits are also noted to have been consumed by the Wonnarua when in season (The New Monthly Magazine, 1828). Most large game were killed with spears and/or captured with nets and lily roots were often wrapped in bark and roasted in the hot coals of a stone-lined fire. The traditional clothing of the Wonnarua is described as being a roughly cured opossum-skin cloak, worn with a girdle of opossum hair next to the skin although on 'gala occasions' they also anointed people with a mixture of red ochre and fat (The New Monthly

Magazine, 1828; Miller, 1886). Miller also points out that the Wonnarua had various other personal effects including:

> "ordinary spears, woomera, shields, and war boomerangs, and also the boomerang which returns when thrown into a flight of duck and other birds with very good results. They also had bags made of platted swamp grass; koolaman or wooden bowls, two or three feet long, for holding water at the camp; tomohawks of hard dark coloured stone, which were first chipped and then ground to an edge; knives made of flint for cutting up meat, and also chips with which they skinned animals"
>
> (Miller, 1886:353).

Aboriginal Law also seems to have maintained harmonious relationships between Wonnarua and Awabakal people (an Aboriginal language and/or tribal group associated with lands at the mouth of the Hunter River) that allowed for reciprocity in the use of resources. Percy Haslam a modern ethnographer associated with the University of Newcastle believed, for example, that the Wonnarua were allowed once a year to move through Awabakal territory to the sea to get marine food and salt. He also noted that:

> "As depicted in a cave painting near Wollombi; the Awabakal always invited the Wonnarua to feasts when whales became stranded on Newcastle or Lake Macquarie beaches"
>
> ['Aboriginal History in the Hunter Region' Newcastle University Archives A6712(iv)]
> (Le Maistre, 1996: 35).

2.1.3 Aboriginal occupation of the traditional lands of the PCWP

Most of the evidence for Aboriginal occupation in the Hunter Valley comes from stone artefacts and the recording of these Aboriginal archaeological heritage sites. Unfortunately, there is little ethnography concerning the production and use of stone artefacts. Typically stone resources are mentioned only with reference to the use of: quartz as a barb on spears, the use and curation through grinding of stone hatchets; and the use of 'chips' for skinning animal foods (Brayshaw, 1986).

Formal examination of the Aboriginal archaeological heritage of the Hunter Valley region commenced at or about the 1930s with the research of Frederick McCarthy of the Australian Museum (Thorpe & McCarthy, 1933; Moore, 1970). An earlier excursion by Thorpe to the Hunter had confirmed the presence of a 'significant bora ground with carved trees, clearing and mounds still intact' at Bulga as reported by A.N. Eather; and provide some tangible evidence of the Aboriginal ceremonial use of the area (Etheridge, 1918; McCarthy, 1940). Indeed the later papers prepared by McCarthy (1944,a,b,c&d) provide descriptions and images of unusual Aboriginal objects collected by Mr Eather, at or near the site of this bora ground and its neighbouring camp sites.

Prior to the interest of the Australian Museum, only a few local individuals had taken an interest in the prehistory of the region (HLA-Envirosciences, 2007). R.H Mathews, a surveyor, is one such person and he left accounts and drawings of some of the Aboriginal 'relics' he found (Moore, 1970). He appears to have been the first to report publicly on the cave paintings near Bulga (Singleton Argus, 1893; Mathews, 1893). Drawings of the images seen by Mathews in the caves at Bulga accompanied the descriptions of them that he published in the *Journal of the Royal Society of New South Wales* in 1893 (See Figure 2.2). In the 1940's McCarthy and Davidson began locating Aboriginal sites in

Wonnarua County - in the terraces and slopes along the Hunter River near Singleton (McCarthy and Davidson, 1943).

In the mid-1960s the Australian Museum sponsored a more systematic survey of the locations identified by McCarthy & Davidson (1943) that found several types of sites including painted rock shelters, rock engravings, axe-grinding grooves, stone artefact scatters, manufacturing areas and habitation sites within the upper Hunter Valley (Moore, 1969). As a result of these reconnaissance surveys Moore (1969 & 1970) undertook a series of subsurface investigations of both open sites and rock shelters within the Milbrodale and Sandy Hollow areas of the upper Hunter with the aim of reconstructing the prehistory of the Hunter Valley's occupation by Aboriginal people. At Sandy Hollow, within a rockshelter about 300m north of the Goulbourn River a stone artefact assemblage of more than 4280 artefacts was recovered (ERM, 2004). .As well, bone implements, shell and bone fragments, and hearth sites were also located (ERM, 2004). A probable post-contact Aboriginal burial was also identified by some school boys who attended the site in the 1960s subsequent to the archaeological dig getting some media coverage (Moore, 1969; 1970).

Since this time, numerous surveys have been conducted as part of the consent process for a number of mining and large infrastructure projects within the Hunter Valley. The following is an illustrative, rather than an exhaustive list of some of the areas investigated and the projects undertaken: Mount Arthur (Koettig and Hughes 1985; McDonald 1997; Kuskie 2000, Kuskie & Clarke, 2004); Glennies Creek (Brayshaw 1986; Koettig 1986a, 1986b; Dowling 1991; Stuart 1999; Witter 2002); Rixs Creek (Effenberger 1993); Bowman's Creek (Witter, 2002); Loders Creek (Dyall, 1981a,b; Koettig, 1994; Brayshaw, 1988), Nine Mile Creek (Stern, 1981); and Wollombi Brook (Enviros ciences, 1991; Wambo Coal Pty Ltd, 2003). In concert these studies cover an extensive portion of the central Hunter Valley, and although with some clear localised variations, they have largely confirmed the same generalised result with regard to the distribution of Aboriginal artefactual material across the Hunter landscape. That is, the majority of Aboriginal archaeological sites were identified to be artefact scatters that were usually found within 50 m of waterways (ERM, 2004). Typically these sites consisted of small flakes and flaked pieces predominately composed of mudstone and silcrete with minor amounts (<10%) of other artefact types and compositions. Sites do occur away from creeks and streams but these sites, on ridges and hill slopes, are very low-density, or background, artefact scatters and isolated finds (HLA-Enviros ciences, 2007).

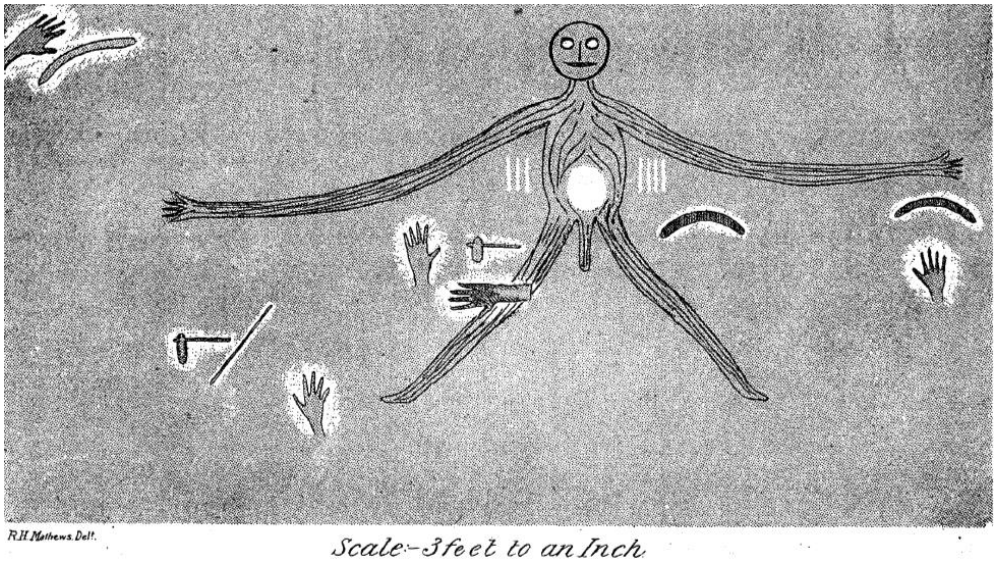


Figure 2.2. A copy of the drawing Mathews (1893: 356) produced of a figure he describes as "The figure of Baiamai, or Devil Devil or whatever the image represents" as published in the Journal of the Royal Society of NSW.

Site types other than artefact scatters that have been found in the region include scarred trees, burials, stone and ochre quarries, grinding grooves and contact sites containing glass artefacts (ERM, 2004). Brayshaw (1986) noted the presence of hearths sites along Glennies Creek, as also did Koettig (1986, 1987). Radiocarbon dates obtained by Koettig (1986, 1987) from excavations undertaken of hearth sites along Glennies Creek yielded Pleistocene ages, and indicate that the Wonnarua had made use of it and the adjoining creek systems for perhaps greater than the past 20,000 years.

Clearly from the above, for the most part the traditional Aboriginal antecedents of the PCWP camped along the creeks and streams of the Hunter Valley where access to permanent water was available. Localised variation in the choice of suitable location likely resulted from considerations relating to (a) the longevity of the proposed stay; (b) the risk, or otherwise, of flash flooding; and (c) the relative safety and shelter provided by the location. Other parts of the landscape were used particularly for the procuring of animal, plant and stone artefact raw material resources but few tangible traces of these broader landscape activities are found in the archaeological record.

2.1.4 Contact and post contact histories: A brief summary

The first permanent settlement in the Hunter Valley was a penal settlement, which was established in 1804 at the mouth of the Hunter River which was then known as the Coal River. At this time, the population of the settlement consisted only of the military garrison, convicts and civilian officials and the only transport between this settlement and Sydney was by water (Karskens, 1985). Convicts were employed in coal mining, timber getting, lime-burning and labouring in the penal settlement and its wharves. The lands in the region of the Hunter River were closed to free settlement and the resources therein were reserved for the use or the profit of the Government (Wood, 1972). Nevertheless by 1812 some small-farms had been established and a few well-behaved convicts occupied grants at Patterson's and Wallis Plains (Maitland).

In 1819 John Howe, a grazier and constable at Windsor, located the first overland route between Windsor and Jerry's Plains in the upper Hunter (Karskens 1985). This route passed through the area occupied by the current village of Bulga, it being the first place reached by Howe, Singleton, Thorley and others in leaving the ranges (Eather, 1921). A second expedition led by Howe in 1820 followed a slightly different route and it was this later route that was officially opened to the public in 1823 as it rapidly developed as the main thoroughfare for travelling stock from the northern districts of New South Wales (Karskens, 1985; Eather, 1921). Soon after, when Cunningham traversed the route he described it in less than glowing terms maintaining that it was:

> "A rugged bridle track over a mountain ridge called Bulga, quite unfit to take and empty cart by".
> (Cunningham, 1827: 75)

Despite the difficult and circuitous nature of the route identified by Howe in 1820 he was subsequently granted land at Jerry's Plains for his discovery of the Bulga Road (Karskens, 1985). Thus began the alienation of Wonnarua land. In March 1821 there were just 21 settlers in the Hunter Valley including John Howe and Benjamin Singleton. Within four years this had increased ten-fold to 283 settlers spread along the river as far as Segenhoe in the north, creating a farming district second only to the district of the Cumberland Plains (Karskens, 1985: 23). Within the vicinity of the Project, land grants

were taken up by Dr James Bowman, Magistrate Samuel Marsden, James Glennie, J.P, Captain John Brabyn and Captain John Lethbridge (Dangar, 1828b) (see Figures 2.3 & 2.4).

During the period from 1823-1827 approximately 25% of the land available along the Hunter was converted to freehold title by Crown grant (Robinson & Burley, 1962). It is interesting to reflect on the nature of the landscape as perceived by those coming to the upper Hunter at this time. A contributor to *The New Monthly Magazine* in 1828 'waxed lyrical' about the area because it was not deeply forested riparian land, as was found closer to the mouth of the Hunter River but rather it was open, though wooded, grassland:

> "Patrick's Plains, one would think, would spoil the settler, and make him difficult to be pleased with any*thing* afterwards. But the contrary is the case; for while you go on wondering where the fine country is to end, you perceive it increasing in value and importance the farther you proceed up the river…we had a fine ride of about ten miles, to the neighbourhood of Jerry's Plains. We passed over a rich and fertile country, but without inhabitants, save a solitary shepherd or two tending their flocks, who showed us the nearest way through the grass… It really was a pity to see Nature here in such solitary magnificence, in the sole and quiet possession of the tall emu. Land ready for the plough, without cutting down a single tree, seems here to have been overlooked or neglected, while thousands and tens of thousands of acres of impervious forest and scrub nearer the coast, have been caught up with …
>
> As I rode through the thick emu grass, the wild indigo touching my stirrups, and plenty of wild currants, raspberries, and tobacco, and the country clear enough to see a *dog* a mile off, I brought every part of the colony I had seen in review before me, and they all suffered in comparison with the upper part of Hunter's River…
>
> (The New Monthly Magazine, 1828: 245-246).

Henry Dangar (1828b) was more circumspect, but did comment on the suitability of the lands within the Parish of Ravensworth in the following terms:

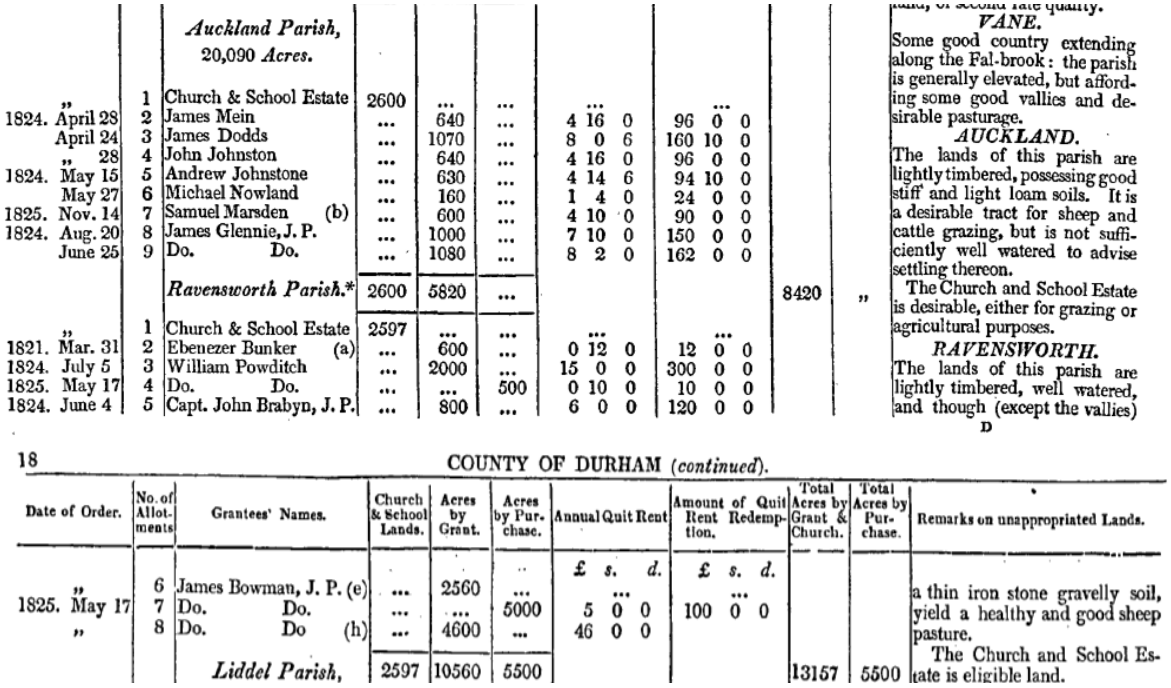
> "The lands of this Parish are lightly timbered, well watered, and though (except the vallies) [sic] a thin iron stone gravelly soil, yield a healthy and good sheep pasture."
>
> (Henry Dangar, 1828b. pp.17-18)

By the mid-1820s, Sydney's maritime economy was sufficiently developed to provide reliable and regular shipping and communications between the Hunter and Sydney. Consequently, from the beginning of European settlement of the Hunter, Wonnarua people faced a more developed and established colonial world than their Aboriginal neighbours faced earlier in Sydney and the Coal River. The Hunter was within a long night's steaming and was in easy reach of Sydney, so far as settlers were concerned (Karskens, 1985). New South Wales population had grown through natural increase and immigration to provide a free labour market. The convict assignment system also provided labour. The growth in numbers of 'native born' in the colony [this phrase is used to refer to the locally born children of Europeans in NSW and not indigenous people who were usually referred to as the native blacks] meant there was no shortage of labour and therefore few opportunities for Aboriginal people, unless they had relevant skills and local knowledge valued by settlers. Capital was available for new areas and land-based ventures supporting extensive farming activities in the Hunter (Le Maistre, 1996)

Likewise, the growing population of Sydney provided a market for produce. As a result, European settlers rapidly displaced Wonnarua people on the Hunter. Aboriginal people's resources were seriously depleted immediately and the Wonnarua people experienced harsh times .The records



Figure 2.3. Extract from Dangar H, 1828a *Map of the River Hunter and its Branches…* showing the parishes of 'Auckland'' "Ravensworth" and "Vane". Note the land portion numbered '5' in the Parish of Ravensworth is that granted to Captain John Brabyn in June 1824. This is the property later known as 'Sydenham' which is intimately associated with the PCWP. The land portions numbered '6', '7' & '8' in this same Parish are the land portions granted to and/or purchased by James Bowman in May 1825. These are the lands later known as the 'Ravensworth Estate', and include lands within which Mt Owen is currently situated. Land portions labelled '8' and '9' in the Parish of "Auckland' are those held at the time by James Glennie and include his estate house 'Dulwich' and a mounted police garrison. The location of the estate house of the property 'Bridgeman' held by John Lethbridge is also shown within the parish of Vane.



		Auckland Parish, 20,090 *Acres.*									
„	1	Church & School Estate	2600	...	...	...		...			
1824. April 28	2	James Mein	...	640	...	4 16 0		96 0 0			
April 24	3	James Dodds	...	1070	...	8 0 6		160 10 0			
„ 28	4	John Johnston	...	640	...	4 16 0		96 0 0			
1824. May 15	5	Andrew Johnstone	...	630	...	4 14 6		94 10 0			
May 27	6	Michael Nowland	...	160	...	1 4 0		24 0 0			
1825. Nov. 14	7	Samuel Marsden (b)	...	600	...	4 10 0		90 0 0			
1824. Aug. 20	8	James Glennie, J. P.	...	1000	...	7 10 0		150 0 0			
June 25	9	Do. Do.	...	1080	...	8 2 0		162 0 0			
		*Ravensworth Parish.**	2600	5820	...				8420	„	
„	1	Church & School Estate	2597	...	...	...		...			
1821. Mar. 31	2	Ebenezer Bunker (a)	...	600	...	0 12 0		12 0 0			
1824. July 5	3	William Powditch	...	2000	...	15 0 0		300 0 0			
1825. May 17	4	Do. Do.	...	...	500	0 10 0		10 0 0			
1824. June 4	5	Capt. John Brabyn, J. P.	...	800	...	6 0 0		120 0 0			

VANE.
Some good country extending along the Fal-brook: the parish is generally elevated, but affording some good vallies and desirable pasturage.

AUCKLAND.
The lands of this parish are lightly timbered, possessing good stiff and light loam soils. It is a desirable tract for sheep and cattle grazing, but is not sufficiently well watered to advise settling thereon.
The Church and School Estate is desirable, either for grazing or agricultural purposes.

RAVENSWORTH.
The lands of this parish are lightly timbered, well watered, and though (except the vallies)

D

18 COUNTY OF DURHAM (*continued*).

Date of Order.	No. of Allotments	Grantees' Names.	Church & School Lands.	Acres by Grant.	Acres by Purchase.	Annual Quit Rent £ s. d.	Amount of Quit Rent Redemption. £ s. d.	Total Acres by Grant & Church.	Total Acres by Purchase.	Remarks on unappropriated Lands.
„	6	James Bowman, J. P. (e)	...	2560	...	...	...			a thin iron stone gravelly soil,
1825. May 17	7	Do. Do.	...	...	5000	5 0 0	100 0 0			yield a healthy and good sheep
„	8	Do. Do (h)	...	4600	...	46 0 0				pasture.
		Liddel Parish,	2597	10560	5500			13157	5500	The Church and School Estate is eligible land.

Figure 2.4. Extract from Henry Dangar 1828b. I*ndex and Directory to the Map of the Country Bordering the River Hunter…*pp. 17+18. Note the index is that prepared to accompany the map (and hence map extract) referred to in Figure 2.3. The portion of the index included here describes the country in the vicinity of the parishes of 'Auckland' and 'Ravensworth' and provides details of the numbered allotments within each parish as these occur on the map..

indicate that at first Aboriginal people fought literally to be able to continue some of their life habits and resorted to predatory behaviour to protect access to water and food (Le Maistre, 1996).

In 1826 district magistrate Robert Scott, (who with his brother Helenus received a grant of 2000 acres at Glendon which he commenced to occupy in *c*. 1823), reported to the Governor outlining Aboriginal aggression within the area of his jurisdiction over a 10 month period (Le Maistre, 1996:34). According to his report Wiradjuri people (i.e. the "Mudgee Blacks") cooperated with Wonnarua at the Wollombi Brook - deep in the territory of the antecedents of the PCWP - despite earlier conflict between the two groups. The cooperative effort of these two tribal groups including the significant penetration of the Wiradjuri within Wonnarua territory was to combat a common enemy – the settlers (Le Maistre, 1996).

Robert Scott also took a deposition from George Claris, assigned servant, working as a hut keeper for Mr Howe on 25 March 1827 that demonstrated the cooperative stance of the Aboriginal groups within the Hunter Valley against the settlers at this time:

> Tuesday last natives assembled, including Bit of Bread carrying a poisoned spear and threatening vengeance for accusing him wrongfully — King Jerry told me that if Bit of Bread was hurt by the white men that he would assemble a thousand Black fellows and spear every white man they fell in with, that the Soldiers were all gone away, that they were not afraid and desired me to inform white men at the plains so. One showed me how they surround the huts of the settlers and with a frying pan handle how they would spear us through the Slabs of the Hut, being in an unprotected state we gave them Bread, Milk and Tobacco but they would not be satisfied and I am confident that had it not been for the two strong men that we persuaded to stop, Death would have been the result.
>
> [NSW State Records 5/1161] (Le Maistre, 1996: 54).

The challenging mood of the colonial frontier and the particular circumstances faced by the Wonnarua was captured and editorialised in the Sydney Press, at this time:

> "Three blacks at Hunter's River have been shot, it appears, by the mounted police. We hope it is true, that they were all shot in the act of running away. But still we think their keepers ought to be severely punished for giving them the opportunity to run, and thereby cause their slaughter to be an act of justifiable homicide. There ought to be a solemn investigation. The laws of England will not justify a constable in killing a thief, if by any other means he might have secured him. A constable or a horse patrol is not to be *careless* about securing a prisoner, and say to himself, "*it's no matter—if he attempts to run, I'll shoot him.*" The Australian says, that two of the natives slipped their ropes and would not return, even though the horse patrol kindly requested them so to do; and *therefore* they shot them! Now, we suppose when they were shot, the distance at which these carrion crows were winged, could not have exceeded 100 yards. Amid yet the Australian editor, a barrister, a humane English lawyer says, with the most revolting flippancy, "They", the poor blacks, "were hailed by the party, but ineffectually and, as the "police men saw no means of securing their prisoners " alive, they deemed it advisable to secure them dead "and *so* they fired upon them and shot them, and shot them dead too! ! !" Again, gentle reader. "Another black native, who had committed depredations on a stock-man of Mr McIntyres, was also taken, and also shot by the mounted police. When *the fellow* approached the river, in the way to Wallis's Plains, he slipped the rope and took to his heels, intending to take to the river — just us he reached the banks of the river, he received a ball, which was considered the only measure capable of arresting his flight, and which proved fatal. He was shot dead, *and thus secured!!!*"
>
> (The Monitor, September 1, 1826).

In the oral tradition of the PCWP - and in historical reviews of the colonial record (Gollan, 1993; Millis, 1994) - the declaration of martial law, the dispatching of troops and the punitive expeditions conducted by members of the mounted police, resulted in many massacres of Wonnarua people at this time. One of these reported 'massacres' had its origins in events that occurred within close proximity to Glennies Creek, and it is of particular importance in the evaluation of the cultural landscape values of the broader Glennies Creek and Bowman Creek Catchment areas - within which Mt Owen is situated – by the PCWP (Further details of this event are outlined in Section 5.0). Ultimately these punitive events crushed the armed resistance of the Wonnarua people to the European invasion of their lands. This displacement contributed to a significant decline in the numbers of Wonnarua people in the upper Hunter such that in 1831 when the Surveyor General Thomas Mitchell entered the valley he observed that:

> 'The natives have almost all disappeared from the valley of the Hunter.'
>
> (cited in Millis, 1994:69).

However, Mitchell provided an extreme view that he developed only from observations he made as a transient visitor to the Hunter Valley. In truth the Wonnarua response to displacement from their land, including the concomitant reduction in quantity and access to traditional food resources - as well as the apparent military suppression - was not uniform. Among the Wonnarua some individuals and family groups, including antecedents of the PCWP, continued their Aboriginal ways. Some did so by entering the white economy in their youth and though adjusting many of their life habits still strongly identified and practiced their lives within the scope of their Wonnarua traditions. Writing in a collection of missionary papers, Reverend Boodle (1874) noted remnant members of the Wonnarua that he had encountered at Muswellbrook at the end of the 1840s, and it is clear that at that time this group maintained much of its cultural independence:

> "Occasionally in a long bush ride, a few might be overtaken (with their hatchet, boomerang and waddy stuck in their girdle), with a lump or two of fat twisted among the curls of their hair, and perhaps their *gins,* or wives, following, carrying by the tail the newly killed opossums. The clothing of the men was sometimes a

> striped shirt, sometimes a blanket given by Government, sometimes nothing but their girdle. The women usually wore a blanket or opossum rug, unless some white woman had given them a gown."
>
> (Reverend Boodle, 1874: 160-161).

Reverend Boodle (1874) also provides some comment on those that were among the first to adjust their life habits:

> There are always individuals among the tribes who will, with more or less regularity, join themselves to the white man, tend or wash sheep, act as stockmen (for they are very fond of riding), work about a house or garden, reap, or take part in many of the other occupations of civilised life.
>
> (Reverend Boodle, 1874:158).

Some young women found work as domestic servants. Young Aboriginal men also found employment locally when there was a strong exodus to the gold fields and local vacancies occurred for young men. George Boyle White, Surveyor and resident of Singleton and Maitland, mentions several employers of Aboriginal boys in his journals (Le Maistre 1996:65). Some members of the PCWP also recollect that their great grandparents were stockmen, drovers and timber-getters working on various properties across the Hunter and beyond (e.g. Stocks, 2012; Charlie Franks, *pers com*., 2012).

By the 1860s government reserves were becoming increasingly common throughout New South Wales as a way to control the movement of Aboriginal people. In 1893 St Clair Mission, was declared a Government Reserve (McGuigan, 1983). This mission was located at Carrowbrook, a village lying between Muswellbrook and Singleton (Noble, n.d.). Though situated in the territory of the Wonnarua, residents of the Mission were drawn from neighbouring tribes including the Worimi, Awabakal, and Darkinjung (Gray, 2010). In 1905 the St Clair Mission came under the control of the Aborigines Inland Mission (AIM), an organisation founded by Baptist missionary Retta Dixon (Blyton et al., 2004). A year later she assisted in the establishment of a female orphanage for Aboriginal girls in George Street Singleton and a second mission at Redbournberry on the banks of the Hunter River (Gray, 2010).

St Clair operated as a Mission until 1918 when it was taken over by the Aborigines Protection Board and was renamed Mount Olive Reserve. At his time, the Aboriginal people were subjected to the absolute control of the newly appointed Station Manager and many people were removed from Mount Olive for failing to adhere to the strictly imposed rules (Blyton *et al*., 2004). As a result the number of people living on the Reserve declined and by 1923 it was closed to Aboriginal people. For the period that St Clair Mission – Mt Olive Reserve operated a further dissolution and dismantling of traditional Aboriginal lifeways occurred. At this time Aboriginal children were removed from their families (See Stocks, 2012); and others sort to avoid the strictures of the management regimes and/or missionary efforts to Christianise their children by moving away from Wonnarua country (Lester, 2012). When doing so links to the Wonnarua Lands were still maintained through regular visits with extended family and clan and by maintenance of oral history that was handed down from generation to generation. Yet part of the Wonnarua story, and a clear feature of the history of some within the PCWP, is that not all were subject to missionary intervention. Many who had work and/or personal access to land were able to avoid it and hence continue with many of their traditions.

For much of the first half of the twentieth century, the economic activity of the Singleton LGA was based on rural industries such as dairying, beef cattle production, vegetable and fodder farming (Robinson & Burley, 1962). Members of the PCWP who retained residence in the area found work as

Dingo bounty hunters, rabbit trappers, farmers, orchardists, timber getters and/or as cooks and cleaners (Franks, 2012, Stocks, 2012; Ward, 2012). Hence relationships developed between the PCWP and the local farming community that enabled continuance of access to traditional lands. From the 1960s with the advent of open cut methods for mining coal the large deposits of steaming coal found close to the surface in the Singleton LGA became viable exploitable resources. Hence from about the mid-seventies more than ten major open cut coal mines commenced operation. Major ancillary infrastructure developments including the Liddell and Bayswater Power Stations were also completed at this time (HLA-Envirosciences, 2007). These have resulted in the destruction and removal of a significant number of Aboriginals sites throughout the Hunter.

In summary, it is clear that the post-colonial history of the Wonnarua, as elsewhere for Aboriginal groups throughout Australia (e.g. Morris, 1994, Kijas, 2009) is one of significant social dislocation, marginalisation and dispossession from tribal lands. Yet Wonnarua people have maintained a long and continuing attachment to the area about the central and upper Hunter Valley. Members of the PCWP are the contemporary generation of Aboriginal people whose ancestors were Wonnarua. Based on their descent from Wonnarua ancestors, who owned and occupied the Hunter Valley area at the time of first sovereignty, the PCWP identify as traditional owners. For them, they and their ancestors have been associated with the area since time immemorial. The PCWP's continuity of association is demonstrated through oral, archival and anthropological evidence from the time of contact through the generations to the present day. Current members of the PCWP collectively assert that the lands of the central and upper Hunter Valley are the lands of their parents, their grandparents, their great grandparents.

2.2 An introduction to the Heads of Families of the PCWP

In the context of the agreed terms of an advertised meeting held in 2010 to consider authorisation and lodgement of the PCWP's first Native Title Claim, the descendants of either Mary Shoe or Henry "Harry" Taggart jointly confirmed that the PCWP would follow customary lore with respect to the rights and responsibilities of individuals to speak for family. This would ensure continuance of customary practices and ensure that decisions regarding matters of cultural heritage within the country of the PCWP were determined by the right family group(s). It was also expected to ensure that each family group had a voice in the process. Systems of silent voting and/or "show of hands" mechanisms for decision making were flatly rejected as being in no way representative of the traditional rites, lores and customs of the PCWP. As Maria Stocks (2012: para. 4) explains it:

> "The lores and customs of our family groups were not voted upon but were handed down, usually by the passing of an elder. It was usually a man's role to be the Head of Family but if for whatever reason a male person didn't accept the responsibility it would be transferred 'down the line'. My mother Barbara Foot was our family Elder and spokesperson as she had been the 'next in line' upon the passing of her father. In this way the Head of Family role was handed down to me. I accepted the role from my mother and I am now the Elder and spokesperson for our family".

So too, at this initial authorisation meeting, having agreed to customary lore mechanisms, four family lines were identified from within the descendant group of the two named apical ancestors (i.e. Mary Shoe and Henry "Harry" Taggart) and "Heads of Family" for each family line were established. It was also re-affirmed that the "right to speak" was (and forever is) handed down by each 'Head of Family' to the next in line. Moreover once this transference of rights and responsibilities has occurred within a family (by whatever happenstance) it is accepted and never

challenged. It is only ill-health, death and/or by an agreement from the Head of Family to pass on his/her role and responsibility to another individual that allows for the transference of such rights. Within the current Claimant group the four Heads of Family named below have been identified. Notably whilst Charlie Franks remains the recognised Head of Family for the Franks/Smith Family Line, by verbal agreement he has ceded his role to negotiate on behalf of the Franks Family to his younger brother Scott.



Maria Stocks in the arms of her mother Barbara Foot c. 1962. (Photograph: courtesy Maria Stocks)

Maria Stocks: Maria was born in 1961 and has lived in the Singleton district all her life. She is a mother of six children (Melissa, Douglas, Miranda, Brittany, Jeremiah and Annastasia) and a grandmother to six. She is a proud Wonnarua woman who has always known of and been told about her Aboriginal heritage. Her Aboriginality derives from the ancestral line of her mother Barbara Foot (nee Smith) born in Singleton in 1937, the eldest daughter of Alma Mabel Lester and James 'Leslie' Smith who, in turn, were both descendants of Matilda Hughes. (Source Stocks, 2012).



Charlie Franks
(Photograph courtesy Charlie Franks)

Charlie Franks: Was born in 1963, the eldest son of Alma and Claude Franks of Mt Olive. He has three brothers (Malcolm, Scott and Thomas) and two sisters (Ann and Mary). His paternal grandmother Sarah Ann Smith was a Wonnarua woman. She was born at Falbrook near the village of Camberwell, in 1894. In 1914, Sarah married Charles Henry Franks. Her father, William "Billy" Smith was born at Sydenham in 1858, the son of James Smith a non-Aboriginal labourer and Matilda Hughes an Aboriginal woman who was born in about 1832. In turn, Matilda was the daughter of Joseph Hughes a brick maker and Mary Shoe an Aboriginal woman who was born in about 1800. James Smith and Matilda Hughes were married in the St Clements Anglican Church at Falbrook in 1856.

(Source: Franks, 2012 and Charlie Franks, *pers com*., May 2012.)



Rhonda Ward
(Photograph: Maria Cotter, July 2012)

Rhonda Ward: Is the daughter of Bill and Ila Faulder (nee Taggart). She is almost 55 years old and has lived in Singleton all her life. She has three adult children (Samantha, Shaleen and Dean) and ten grand children or ''grannies" as she likes to call them. Rhonda claims her Aboriginal heritage through her maternal family line of Taggart. Her mum Ila was born in 1937 and was the third eldest of six children born to George and Ivy Taggart of Broke. Rhonda's grandfather George was the eldest son of Henry "Harry" Frederick Taggart - a Wonnarua man - and Mary Ann Lawrence who were married in the village of Broke in 1891. Harry was born in 1860 to nineteen year old Emily (or possibly Polly), a Wonnarua woman from the Sandy Hollow area.

(Source Ward, 2012**)**.



Rob Lester
(Photograph: Maria Cotter, February 2012)

Rob Lester: Is a 65 year old father of four and grandfather of six. He was born in Paddington Sydney but is joined directly to his birth right country of Wonnarua lands through the ancestral bloodline of his paternal grandfather, Edward Robert "Bob" Lester". His grandfather was born at Bridgman, Patrick Plains in 1893, the son of Mary Anne Smith and Edward Lester. Mary Anne Smith was the daughter of Matilda Hughes, a Wonnarua woman who herself was born at Patrick Plains in 1832. Rob also claims an historical connection to Wonnarua lands through his paternal grandmother Ada Waters/Miller who was the grand-daughter of Sarah Madoo. As Rob explains it, Sarah Madoo his great great -grandmother was a Worimi person, born on the Allyn River at Eccleston in 1847, then moving from Eccleston to Singleton in later years.

(Source: Lester, 2012).

3.0 THE MT OWEN CONTINUED OPERATIONS PROJECT (the Project)

3.1 Introduction

The purpose of this section of the report is to make apparent the PCWPs understanding of the Mt Owen Continued Operations Project (the Project), and the approvals process to which the Project is to be subjected, especially where the approvals process is recognised to require Aboriginal cultural heritage matters to be addressed. To this end, the focus is on the identification of the fundamentals of the Project Proposal, its environmental setting; and the detailing of the regulatory framework within which it is to be considered. It is not intended here to provide either a definitive account of the Project, its background or the broader history of mining operations within the area. This section of the report has benefited from written materials and mapping information supplied directly to Tocomwall by Glencore for inclusion, as necessary, into this report.

3.2 The Project Location

Glencore Mt Owen is located within the Hunter Valley Coalfields, a geological resource associated with the Late Permian Wittingham Coal measures that occur within the central valley lowlands of the Hunter River, New South Wales. The township of Singleton, the administrative hub of the Singleton Council Local Government Area, lies approximately 16 kilometres south-southeast of the Project Area. (Figure 3.1). The village of Camberwell adjoins the New England Highway approximately 4.5km south of Mt Owen. Within this vicinity numerous other mining operations occur including Glendell Coal Operations, Liddell Coal Operations, Ravensworth Operations, Integra Mine and the Ashton Mine to the south. Surrounding land not subject to current mining activity consists of biodiversity offset areas, State Forest and rural and rural residential landholdings (Figure 3.2).



Figure 3.1. General Location of Mt Owen Continued Operations Project Area relative to the towns of Singleton and Muswellbrook and other village localities including Ravensworth and Camberwell (Source Google Maps, 2013).

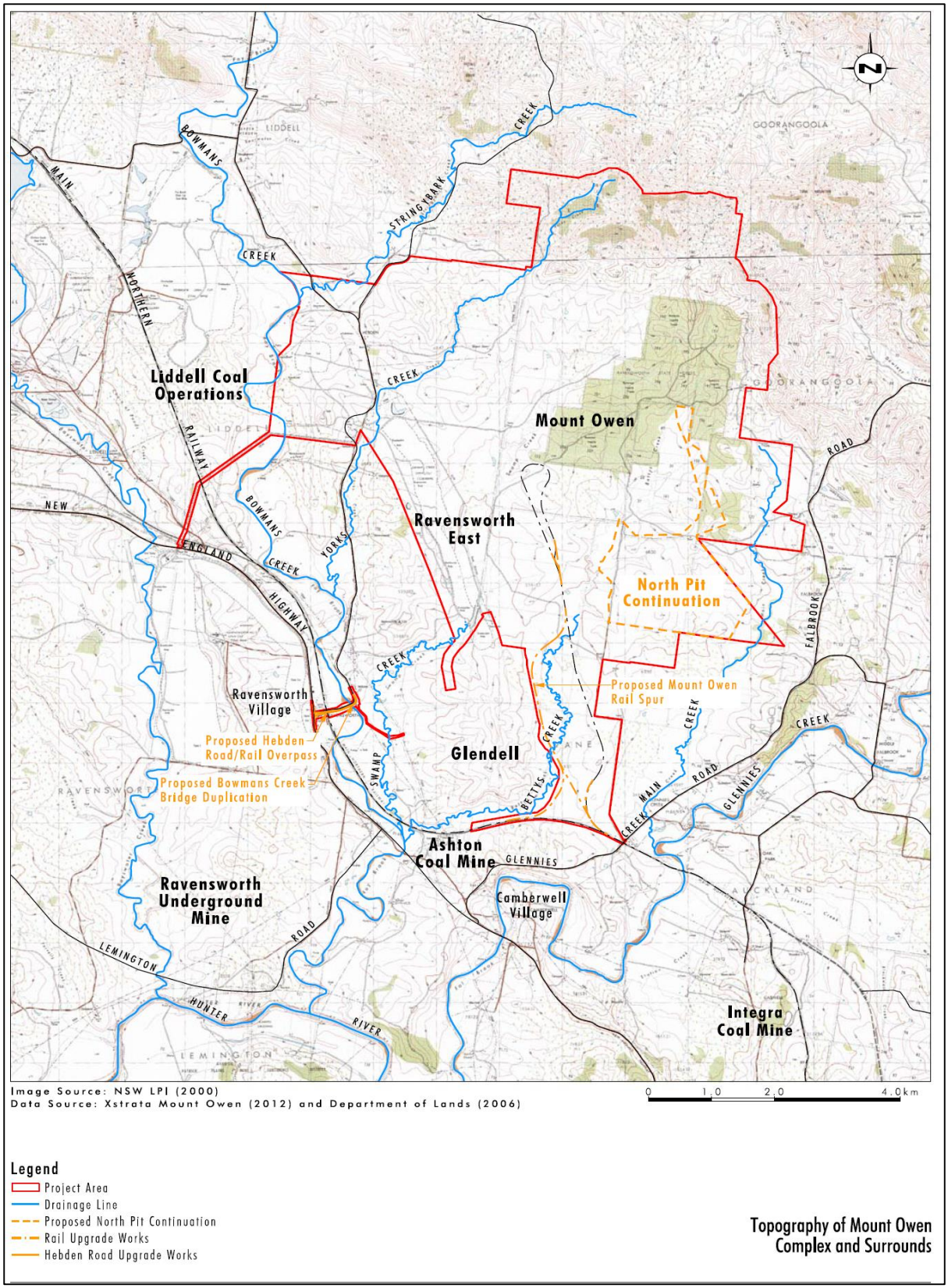


Figure 3.2. Topography, drainage and mining activity within the vicinity of the Mt Owen Continued Operations Project Area (Source Glencore, 2013).

3.2.1. Land Tenure

Glencore or its subsidiaries own all the land within the proposed disturbance area and large areas of land within the surrounding area for mining operations and associated buffer land (Figure 3.3). The Ravensworth State Forest is located within the north-eastern corner of the Project Area, adjoining previously mined and rehabilitated areas, and is not proposed to be disturbed as part of this Project. Land to the south and south-east of the Project Area is owned by Ashton Coal Mines Pty Limited, and Integra Coal. Land to the west and south-west of the Project Area is predominantly owned by Glencore and Macquarie Generation (Figure 3.3).

3.2.2. Topography

The topography of the Project Area is characterised as an undulating and hilly landscape incised by various roughly north to south flowing drainage channels associated with the Bowman's Creek (including Swamp Creek and Bettys Creek) and Main Creek catchments (Figure 3.2). The broad meander of Glennies Creek lies approximately 2 km to the east of the Project area. Both Bowman's and Glennies Creeks are tributaries of the Hunter River which lies approximately 5 km to the south and south west of the Project area. Hence the lower and flatter portions of the Project area are typically in the south and are characterised as alluvial floodplains. A notable topographical feature in the near vicinity is a north-south running ridgeline. This lies to the east of the Project Area where it rises to a height of approximately 360 m AHD. Extending further north-east of the Project Area the terrain becomes increasingly rugged as it joins the foot slopes of the Mt Royal Ranges.

3.2.3 Vegetation

Native vegetation within and surrounding the Project Area occurs in scattered patches of remnant woodland forming a mosaic between areas of agricultural and mining land. Five creeks (Bowmans, Bettys, Swamp, Yorks and Main Creeks) occur within or near the boundary of the Project Area and generally support stands of Swamp Oak and/or River Oak. The York Creek Catchment Enhancement Project Area and voluntary conservation zone lies to the northwest of Mt Owen (GSS Environmental 2007) and Ravensworth State Forest occurs within the north-eastern portion of the Project Area.

The areas surrounding the Project Area are predominantly composed of valley floor woodlands, forests and native and exotic pastures derived from the clearing of the woodlands. Fourteen vegetation communities have been mapped within the Project area, nine of which occur within the proposed disturbance area (See Figure 3.4). Vegetation communities, recorded in the proposed disturbance area include:

- Central Hunter Grey Box Ironbark Woodland (EEC listed under the TSC Act)
- Central Hunter Bulloak Forest Regeneration
- Central Hunter Swamp Oak Forest
- Central Hunter Ironbark - Spotted Gum - Grey Box Forest (EEC listed under the TSC Act)
- Planted Ironbark - Spotted Gum - Grey Box Forest (EEC listed under the TSC Act)
- Hunter Valley River Oak Forest
- Kunzea Closed Shrubland
- Derived Native Grassland; and
- Rehabilitation.

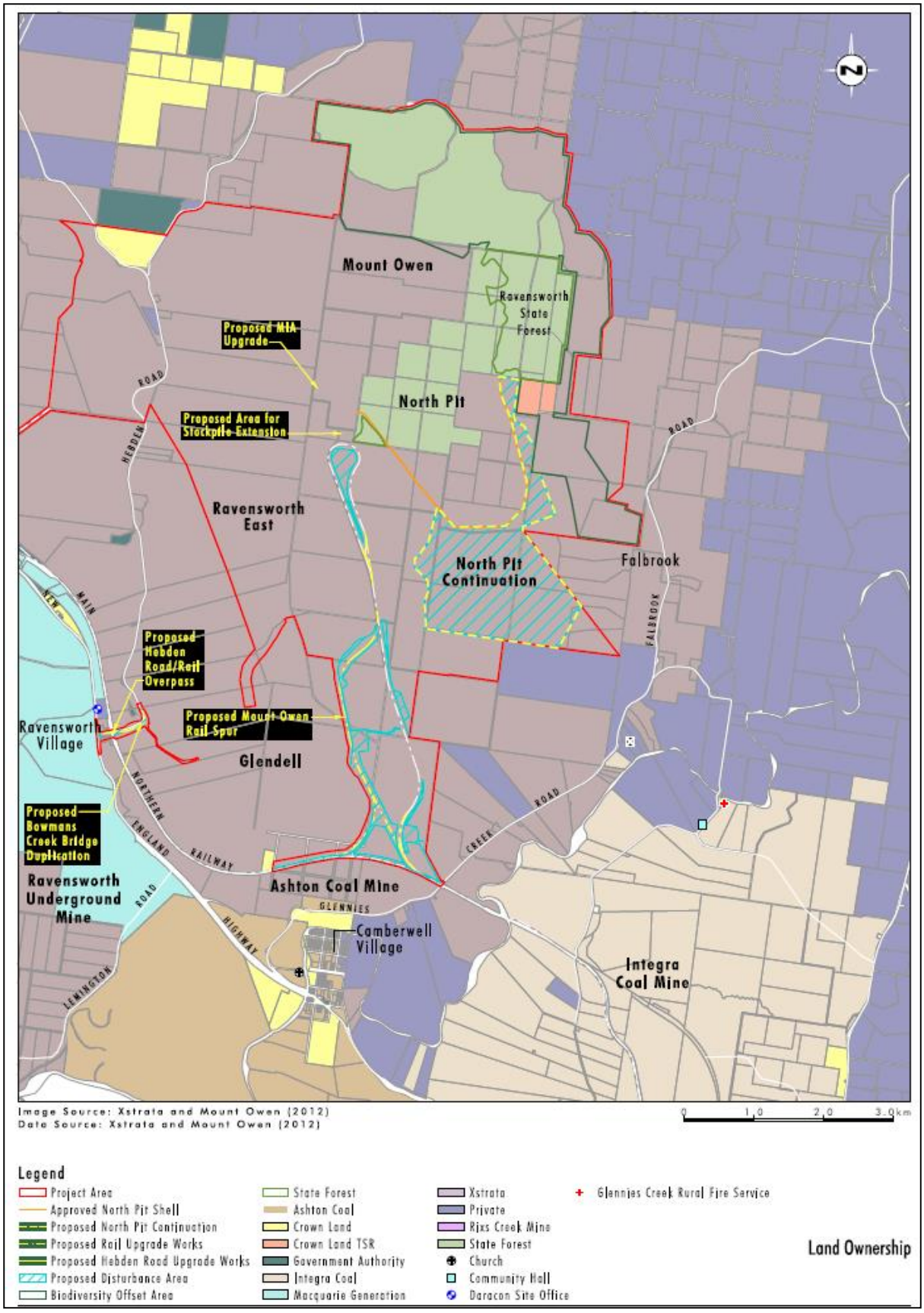


Figure 3.3. Main Land tenure types within the vicinity of the Mt Owen Continued ZOperations Project area. (Source Glencore, 2013).

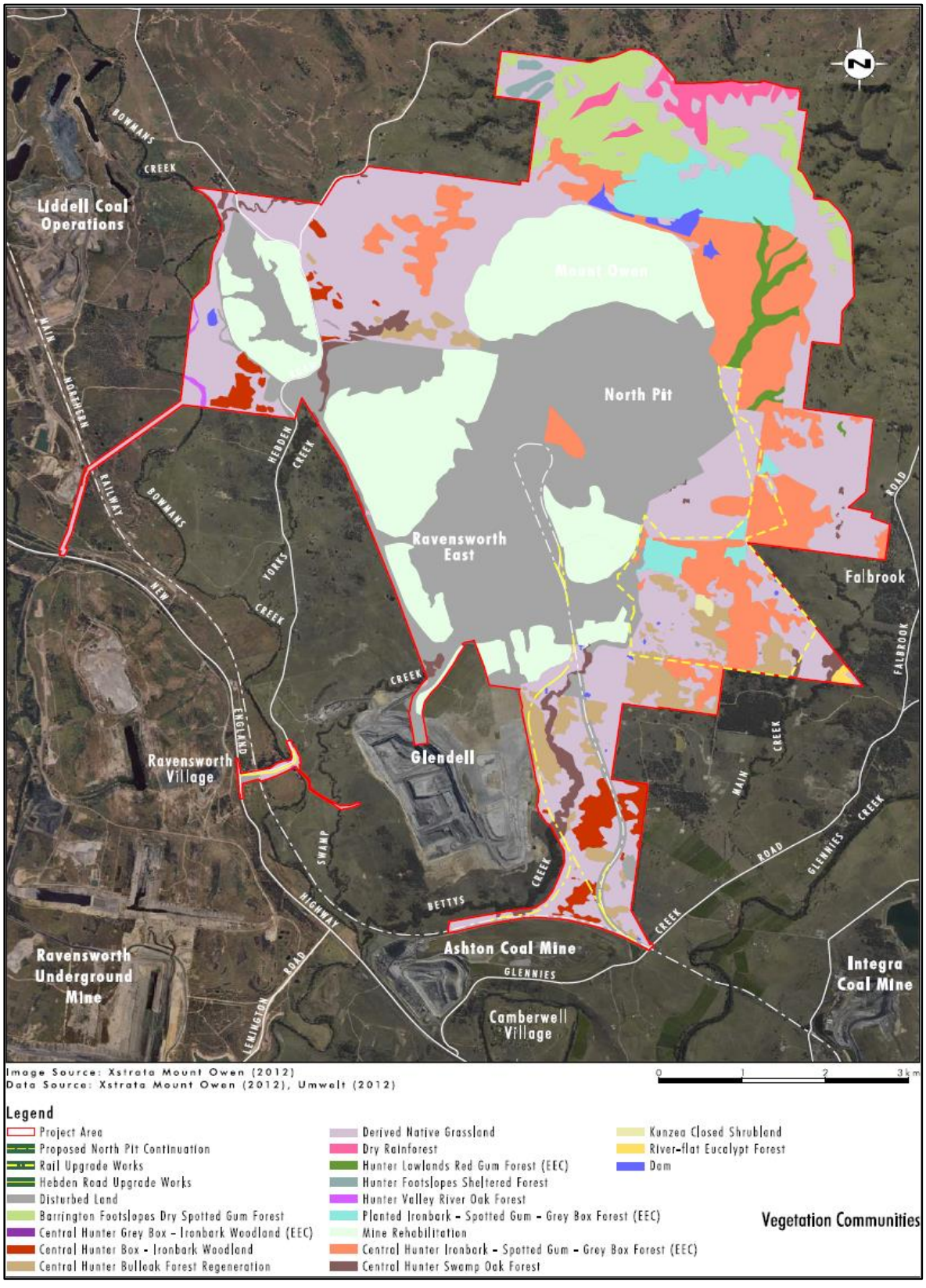


Figure 3.4. Vegetation Communities with and surrounding the Project area (Source Glencore, 2013).

3.3 The Project proposal

The Project Area encompasses the current approved development consent areas for Mount Owen and Ravensworth East in addition to areas associated with proposed rail augmentation and works on Hebden Road. A plan of the development proposal highlighting key features and their spatial extent is provided in Figure 3. 5. The Project will enable extraction of approximately 80 million tonnes (Mt) ROM of additional minable coal beyond the currently approved pit shell. This is expected to extend the mine life for 21 years from Project Approval to approximately 2030 and allow for contingency for activities such as rehabilitation and capping of tailings dam. The Project proposes to disturb approximate 360 ha in extending the Mount Owen North Pit in a southerly direction with maximum projected mine depth to about 300m below ground level. To facilitate this extension a number of infrastructure upgrades are also proposed that will likely impact a further 118 ha of land. These upgrades are expected to include:

- Provision for a northern rail line turn-out and new rail line;
- Hebden Road overpass over Main Northern Rail Line; and
- New Hebden Road bridge crossing over Bowmans Creek;
- Product stockpile extension;
- Mine Infrastructure Area extension and improvements
- Coal Handling and Processing Plant (CHPP) to increase processing and load out by 2Mtpa to 17 Mtpa ROM Coal.

About 330 personnel will be required during the approximately eighteen month construction phase of the Project. Once these upgrades take effect the mine is expected to operate with personnel numbers at or about existing levels (i.e. approximately 660 people for Mount Owen North Pit and CHPP).

3.4. Planning & assessment requirements

3.4.1 Development consent requirements

The Project is being undertaken in New South Wales and as such it has been identified as State Significant Development (SSD) as per *State Environmental Policy (State and Regional Development) 2011*. With New South Wales parliamentary repeal of the Part 3A provisions of the *Environmental Planning & Assessment Act, 1979* [EP&A Act] in June 2011[5] SSDs now requires development consent under Part 4 of this Act. A fundamental requirement of consent is the preparation of an Environmental Impact Statement (EIS) for which Director General Requirements (DGRs) must be obtained from the Department of Planning. The DGRs require that a detailed assessment of the key issues (including Aboriginal heritage) is provided within the EIS. For Aboriginal cultural heritage, the assessment must include both cultural and archaeological significance (DP&I, 2011) and must:

- Demonstrate effective consultation with Aboriginal communities in determining and assessing impacts and developing and selecting mitigation options and measures; [and]
- Outline any proposed mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures).

[5] With the assent of the *Environmental Planning and Assessment Amendment (Part 3A Repeal) Act 2011.*

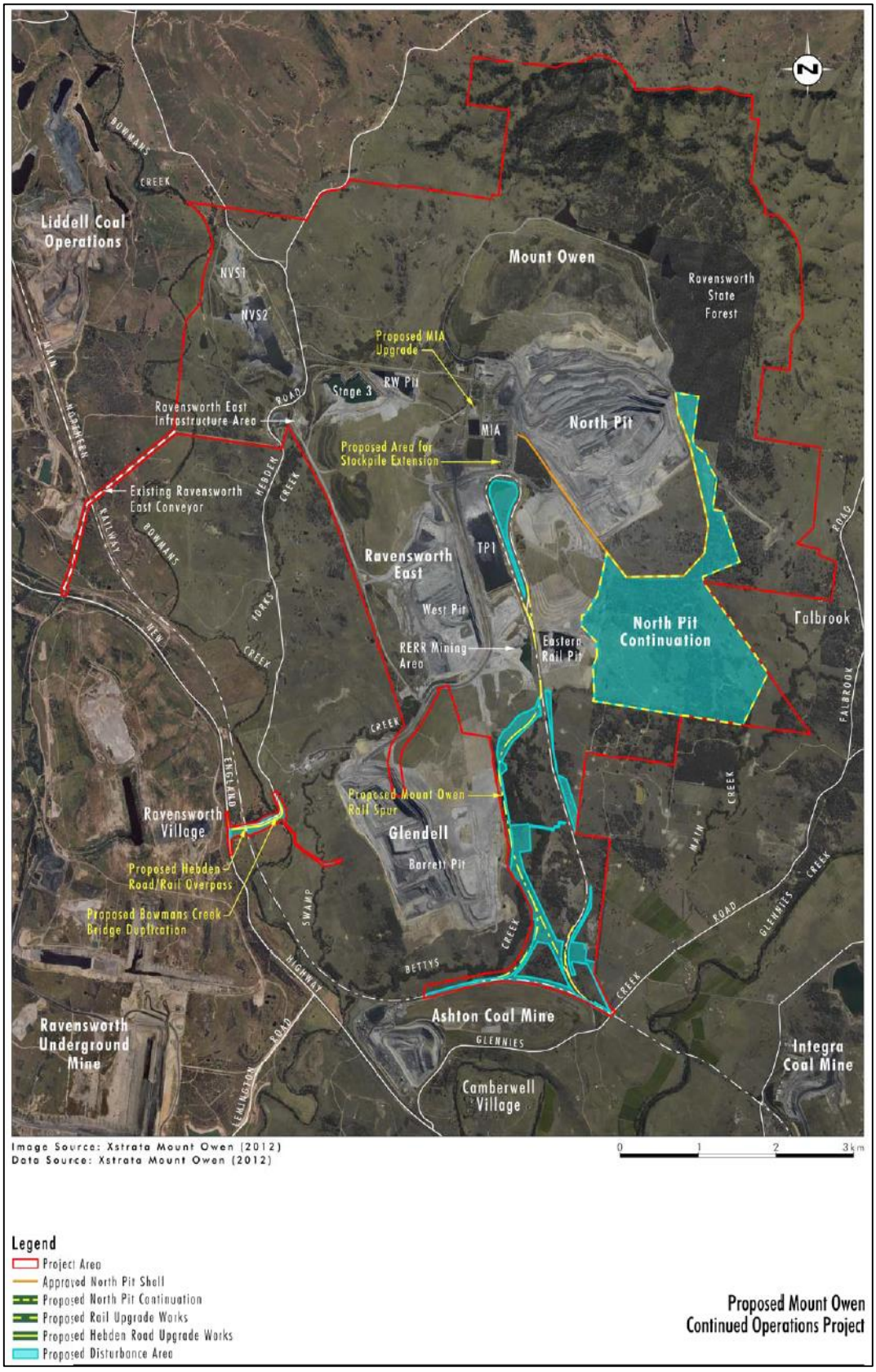


Figure 3.5. The Key Features of the Mt Owen Continued Operations Project and their areal extent (Source Glencore, 2013).

3.4.2 Aboriginal cultural heritage, statutory requirements

The National Parks & Wildlife Act 1974[6] (NP& W Act) is the main New South Wales statute focused on the protection and regulation of Aboriginal cultural heritage. The Part 6 provisions of this Act are focused on the protection of Aboriginal objects and places. The protection provided applies irrespective of the level of significance of the Aboriginal objects or places and irrespective of the land tenure upon or in which they occur. For the purposes of the Act an Aboriginal object is defined as:

> "*any deposit, object or material evidence (not being a handicraft for sale) relating to the Aboriginal habitation of the area that comprises NSW, being habitation before or concurrent with (or both) the occupation of that area of persons of non–Aboriginal extraction, and includes Aboriginal remains* (s.5 NP&W Act).

Likewise an Aboriginal place is a statutory term that means:

> "*any place declared to be an Aboriginal place (under s84 of the NP&W Act) by the Minister administering the NP&W Act…because the Minister is of the opinion that the place is or was of special significance with respect to Aboriginal culture. It may or may not contain Aboriginal objects*" (DECCW, 2010a, v.).

The cultural heritage provisions of the NP&W Act are administered by the Office of Environment and Heritage (OEH)[7] and its Officers are supported to do so by a number of policy and guideline documents (e.g. DECCW, 2010a, b & c; OEH, 2011a, b & c). As is further explained below some of these guidance documents have a key role in assisting proponents meet their regulatory obligations with respect to the assessment of the likely or actual impact of their proposed development activity on Aboriginal cultural heritage. This key role has been substantiated by recent legislative changes to the NP&W Act as briefly outlined below.

3.4.3 Legislative change and the NP&W Act:

The *NSW National Parks & Wildlife Amendment Bill 2010* was introduced into the NSW State Parliament on 25 February 2010. This Bill which was assented to on 15 June 2010; brought into effect the first changes to the Aboriginal cultural heritage provisions of the NP&W Act since its inception in 1974. It is not the purpose of this report to detail these legislative changes in full.[8] It is however pertinent to note that these amendments to Part 6 of the NP&W Act, combined with the supporting regulatory provisions described in the *National Parks & Wildlife Regulation 2009*[9] have brought into effect:

1. Two new Aboriginal cultural heritage offences (including a strict liability offence) relating to acts of harm and/or desecration of Aboriginal objects and places [i.e. NP& W Act, s86 (1), (2) & (4)].
2. A due diligence defence for any act of harm to an Aboriginal object that is supported by either a generic and/or one of several industry/activity specific Due Diligence Codes of Practice [i.e.

[6] As Amended in June 2010.
[7] Formerly the Department of Environment, Climate Change and Water (DECCW).
[8] A series of fact sheets providing further information relating to these changes can be downloaded from the OEH website: www.environment.nsw.gov.au/licences/achregulation.htm
[9] And as amended by the *National Parks & Wildlife Amendment (Aboriginal Objects and Aboriginal Places) Regulation 2010* which came in to affect October 1 2010.

NP& W Act: s87(2); NP&W Regulation: s80A] including for example the *NSW Minerals Industry Due Diligence Code of Practice for the Protection of Aboriginal Objec*ts (NSWMIC,2010) ; and

3. *A Code of Practice for Archaeological Investigation of Aboriginal objects in NSW* (DECCW 2010c) that allows for a legal defence for any act of harm to an Aboriginal object that results from the conduct of an archaeological text excavation without an Aboriginal Heritage Impact Permit (AHIP) [NP&W Regulation: Clause 3A].

The amended legislation also collapses the two-tiered Aboriginal Heritage Impact Permit (AHIP) system with the removal of the need to obtain an AHIP for the purposes of discovering an Aboriginal object. It remains the case however that 'knowing' harm to an Aboriginal object is permitted (and is defensible) when authorised via an AHIP. Also, in respect of the AHIP application and assessment process, the NP&W Regulation outlines in detail the requirements for consultation with the Aboriginal community [Sections 80C] and the requirements for the conduct and reporting of an Aboriginal cultural heritage assessment [Section 80D]. Finally, there are significant increases in the financial penalty/or penal sentence for acts that result in harm to Aboriginal objects irrespective of whether an individual was aware or not that his/her actions would result in that harm.

In accord with Section 80C of the NP&W Regulation, OEH requires that proponents consult with Aboriginal people about the Aboriginal cultural heritage values (cultural significance) of Aboriginal objects and/or places within any given development area (DECCW 2010a). OEH maintains that the objective of consultation with Aboriginal communities about the cultural heritage values of Aboriginal objects and places is to ensure that Aboriginal people have the opportunity to improve Aboriginal cultural heritage assessment outcomes by:

1. Providing relevant information about the cultural significance and values of Aboriginal objects and/or places;
2. Influencing the design of the method to assess cultural and scientific significance of Aboriginal objects and/or places;
3. Actively contributing to the development of cultural heritage management options and recommendations for any Aboriginal objects and/or places within the proposed project area; and
4. Commenting on draft assessment reports before they are submitted by the proponent to OEH.

To assist proponents through the required consultation process the guidance document *Aboriginal cultural heritage consultation requirements for proponents 2010* [ACHCRs] (DECCW, 2010a) has been developed. Consultation in the form outlined in the document is a formal requirement where a proponent is aware that the development activity has the potential to harm Aboriginal objects or places and it has been determined that an application for an AHIP is required before the development/activity can proceed. OEH also recommends that these requirements be used when the certainty of harm is not yet established but a proponent has, through some formal development mechanism, been required to undertake a cultural heritage assessment to establish the potential harm their proposal may have on Aboriginal objects and places. In the context of the Mt Owen Continued Operations Project - as DGRs have been prepared that require an Aboriginal cultural

heritage assessment report to be prepared and, as Aboriginal objects having already been identified within the Project (see Section 4.4) - it is the PCWPs understanding that these formal consultation requirements must be adhered to as part of the current Aboriginal cultural heritage assessment.

Section 4 of the ACHCRs (DECCW, 2010a:10-14) outlines a multi-staged consultation process that includes detailed step-wise guidance as to the aim of each stage, how it is to proceed and what actions are necessary for it to be successfully completed. The four stages are:

1. Stage 1 – Notification of project proposal and registration of interest;
2. Stage 2- Presentation of information about the proposed project;
3. Stage 3- Gathering information about the cultural significance;
4. Stage 4 – Review of draft cultural heritage assessment report.

The document also outlines the roles and responsibilities of OEH, Aboriginal Parties including Local and State Aboriginal Land Councils, and proponents throughout the consultation process. To meet the requirements of consultation, Section 5.3 of the ACHCRs (DECCW, 2010a:16) maintains that proponents should do the following:

1. Bring the registered Aboriginal parties or their nominated representatives together and be responsible for ensuring appropriate administration and management of the consultation process;
2. Consider the cultural perspectives, views, knowledge and advice of the registered Aboriginal parties involves in the consultation process in assessing cultural significance and developing any heritage management outcomes for Aboriginal object(s) and/or place(s);
3. Provide evidence of consultation by including information relevant to the cultural perspectives, views, knowledge and advice provided by the registered Aboriginal parties;
4. Accurately record and clearly articulate all consultation findings in the final cultural heritage assessment report;
5. Provide copies of their cultural heritage assessment report to the registered Aboriginal parties who have been consulted; and [if required]
6. Submit an application to DECCW for an AHIP in a timely manner and with all required information.

The PCWP acknowledges that this report reflects the commitment of Glencore Mt Owen to the requirements for consultation as outlined in the ACHCRs and in particular to points 2-4 above with respect to the documenting of Aboriginal cultural knowledge (and in this case PCWP specific knowledge) about the Project. The PCWP is aware that at the Registration of Interest (i.e. Stage 1 of the Aboriginal Community Consultation Process) several other Aboriginal organisations/consultant groups registered an interest in the Project. Hence the PCWP is one of many Aboriginal Parties for which the administration and management of all formal consultation has been the overall responsibility of ACHM and Glencore Mt Owen. Consequently no record of the PCWP participation in the formal consultation process is presented in this report as it is expected to be included in the wider ACHR being developed for inclusion in the Environmental Impact Statement for the Project (and see Section 4).

With regard to this consultation it must be emphasised that the PCWP has asserted its key role in the decision making process regarding the assessment of the Aboriginal cultural heritage significance of the Project. The PCWP has done this on the basis that, in accordance with the *Commonwealth Native Title Act* (1993) and the *NSW Native Title Act* (1994), it is a registered Native Title Claimant Group with statutory recognition for certain lands; and members of the PCWP are people who in the terms of Section 3.3.1 of the ACHCRs (DECCW, 2010a:8):

- Continue to maintain a deep respect for their ancestral belief system, traditional lore and custom;
- Recognise their responsibilities and obligations to protect and conserve their culture and heritage and care for their traditional lands or Country; and
- Have the trust of their community, knowledge and understanding of their culture, and permission to speak about it[10].

[10] Note that within the PCWP (a) Mr Scott Franks has been recognised by Justice Sheehan of the NSW Land & Environment Court to be an Aboriginal heritage specialist able to speak about and evaluate Wonnarua Cultural heritage values; (b) Mr Robert Lester has acted to protect his heritage from harm in the context of recent legal proceedings *i.e*. Lester vs Ashton Coal Pty Ltd & Anor., 2011; (c) Aunty Barb Foot was recently acknowledged with two posthumous community awards for her advocacy of her cultural heritage and (d) Mrs Rhonda Ward and her late husband Graham were instrumental in the establishment of Ungooroo Aboriginal Corporation in Singleton.

4.0 DOCUMENTING THE PCWP VALUES IN THE PROJECT

4.1 Introduction

Cultural landscapes continuously unfold in space and time as peoples relationships with their social and physical environments are built on, discovered, negotiated and unveiled (Cotter & Boyd, 2001).

Cultural values are, of necessity, historically contingent, dynamic and situation specific (*cf*. Murdoch & Pratt, 1997). Hence an understanding of the historical and social context of the individual and/or group's relationship with a particular place is pivotal to the assessment of the cultural values that may obtain at each place. Moreover, the fluid and multi-dimensional character of the place within which a 'culture' is represented, and from within which it acquires value, cannot be ignored. Ultimately, the meanings attributed to material and intangible cultural items or places mirror the processes of the cultural construction of those items or places. The contexts of the creation and expression of cultural values must be understood in order to fully characterise the places in which such values are being ascribed (Cotter & Boyd, 2001). Hence the primary focus of this section is to provide the context(s) for the creation and expression of cultural values in the Project by the PCWP. It does so by: (a) identifying the scope of the Project, its aims and expected outcomes; (b); providing a summary analysis of the prior investigation of Aboriginal cultural values within the Project; and finally (c) outlining the methods by which the cultural values information reported in this document has been obtained.

4.2 Aims and expected outcomes

Tocomwall has been engaged by Glencore to undertake an Aboriginal cultural heritage assessment of the Project Area from the perspective of the *Plains Clans of the Wonnarua People.* The following aims of this assessment are:

1. To undertake a PCWP specific cultural heritage assessment of the Project that is:
    - I. Compliant with the requirements of the *National Parks and Wildlife Act 1974* (NPW Act),
    - II. Consistent with the "*Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*" (OEH, 2011), and
    - III. Complimentary to the *NSW Minerals Industry Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* (NSWMC, 2010).

2. To conduct this PCWP specific cultural heritage assessment in accord with the requirements of the *"Aboriginal cultural heritage consultation requirements for proponents 2010*" (DECCW, 2010a), especially as a stand-alone contribution to Stage 3, whereby information about cultural significance is exclusively derived and determined from the perspective of the PCWP.

3. To use the information obtained during this heritage assessment to prepare a report that outlines the PCWP specific cultural heritage values of the Project area and that evaluates the cultural significance of items and places within the Project, in light of these values.

4. To contextualise the cultural values identified and their significance with respect to the PCWPs understanding of cumulative heritage impacts and issues of intra and inter-generational equity

5. To make recommendations that enable the cultural values and cultural considerations determined through the abovementioned PCWP specific cultural heritage assessment process to inform the protection, salvage and/or mitigation of cultural heritage values within

The following seven primary project tasks were identified as necessary to achieve these aims:

1. Consultation with PCWP members in alignment with regulatory requirements, policy standards and approved consultation guidelines;

2. Limited field assessment of the Project Impact area with the view to understand the nature of the physical environment and to identify the full range of PCWP specific cultural values within it;

3. Archival research and other desktop review as required to ensure appropriate understanding of the ethnographic, environmental and historical land use contexts of the Project;

4. Documentation of oral histories and/or other commentaries from PCWP members relating to the cultural values of the Project;

5. Description or mapping of the cultural values of the Project in context of the surrounding landscape;

6. Synthesis of the PCWP cultural values and determination of the significance of items, places, natural resources and/or landscapes of the Project in accordance with accepted significance criteria; and

7. Articulation of management options for the identified Aboriginal cultural values and resources within the Project. These options are expected to address such aspects as harm minimisation and mitigation; cumulative impact and inter-generational equity and that do so from the perspective of the PCWP whose cultural heritage it is.

Upon completion of this report, it is expected that it will be incorporated - as a fully confidential component - into the integrated Aboriginal Cultural Heritage Assessment Report [ACHAR] being prepared by the consultant company "Australian Cultural Heritage Management" (ACHM) on behalf of Mt Owen. It is understood that the report being prepared by ACHM for the Project will record all Aboriginal participation in the Project consultation process, particularly the Aboriginal cultural heritage assessment process, as required by the "*Aboriginal cultural heritage consultation requirements for proponents 2010*" (DECCW, 2010b Stage 4, see section 3.4.3).

4.3 Methods and approach

4.3.1. First considerations

It is not possible to document every circumstance and define the appropriate investigative method to use for each and every investigation and assessment of Aboriginal cultural heritage (OEH, 2011c). Nor

is it sensible to restrict the methods by which data regarding the cultural heritage value(s) of an area is gathered and/or analysed. There are a multiplicity of meanings that may be ascribed to heritage items and places, and each individual or group may have a *cognitive ownership (sensu* Boyd *et al*, 2005, Cotter, 2009) of one or more of these items or places that needs to be explored and explained. In addition, for either the individual or group holder of a 'cognitive ownership' the significance each ascribes to the heritage item or place it 'owns' is likely to have a multivalent character (CQCHM, 2011). Thus a site which has significance as a camping or occupation site may also be of significance because of the presences of an important creator being or its representation at the same location. Ultimately it is important to recognise that in both traditional and contemporary Aboriginal society there was (and is) no static list of places that were (are) deemed culturally important (Godwin and Weiner, 2006). In this sense, and as has been articulated elsewhere in the assessment of Aboriginal cultural heritage items and places within the Environmental Impact Assessment framework (CQCHM, 2011:60):

> "the entire landscape was [is] a cultural entity in which some locations required a greater level of response but in which people had to be continually aware that the 'old people' or other entities could manifest themselves. People regularly had experiences in the course of the daily round, or dreamed about places and things, that were then submitted to older, knowledgeable people for their consideration. Dependent on the outcome of that adjudication, areas and events were then added to a corpus of localities that were seen as important, demanding special attention and response from people: that is those places had to be managed".

The centrality of landscape to Aboriginal Australians cannot be understated. For Aboriginal Australians, landscape is the locus of social memory such that stories, songs, dance and paintings are all means of retrieving meanings from 'Country' and, paradoxically, help to combine extreme and long-term continuity with considerable negotiability (Rumsey, 1994 cited in Cotter, 2009). One contemporary consequence of this juxtaposition of notions of continuity and negotiability is that Aboriginal Australians continue to "take extremely seriously the responsibilities they have to their ancestors, spiritual entities and hero figures, and to the management and protection of the cultural heritage areas and objects they have inherited from them" (CQCHM, 2011:60).

A further consequence is that Aboriginal cultural heritage management regimes have increasingly been shown to need to accommodate landscape as heritage (Ross, 1996, Ross *et al*., 2010) and to more fully explore local Aboriginal interests in heritage (e.g. Clarke, 2002; Smith & Van der Meer, Smith *et al*., 2003; Greer et al, 2002; Greer, 2010). Rose (1996) has demonstrated the appropriateness of doing so in her book, *Nourishing Terrains* where she explained the complex and multivalent nature of Aboriginal relationships to 'Country' in the following terms:

> Country in Aboriginal English is not only a common noun but also a proper noun. People talk about country in the same way they would talk about a person: they speak to country, sing to country, visit country, worry about country, feel sorry for country, and long for country. Country is not a generalised or undifferentiated type of place… Rather country is a living entity with a yesterday, today and tomorrow, with a consciousness, and will toward life (Rose, 1996:7).

With this recognition there has been a move away from notions of 'sites' to incorporate 'place value' and the notion of 'cultural landscapes' (Brown, 2010). In general the term 'cultural landscapes' has been used to facilitate the analysis and management of cultural heritage beyond a rigid "sites" based approach - which tends to narrowly define and preserve heritage as 'relics' - to consider the spatial, temporal, physical and social contexts in which these 'relics' occur (Cotter & Boyd, 2001; Cotter, 2009). Further, a cultural landscape perspective enables recognition of the history of a place and its cultural

traditions as well as and/or including its ecological value and its continuity between past and present (Mitchell & Buggy, 2002 cited in Brown, 2010).

4.3.2. A multi-modal or 'transdisciplinary' approach

As it is the intersection of the biophysical and sociocultural elements of landscape that manifest as places (see Figure 4.1) then it follows that an integrated examination of these landscape elements is critical to determining the nature and extent of the cultural values that may exist at any such place. Cotter (2009) has demonstrated that there is ongoing merit in the use of a 'transdisciplinary' approach in such an examination, particularly where identification of the cultural values of a multivalent Indigenous landscape is the focus of study. Tocomwall (2012) has previously demonstrated that there is merit in the use of such a 'transdiciplinary' approach in the evaluation of PCWP specific values in mined elements of their cultural landscape. Consequently it is this mixed-methodological approach that is again adopted for this study.

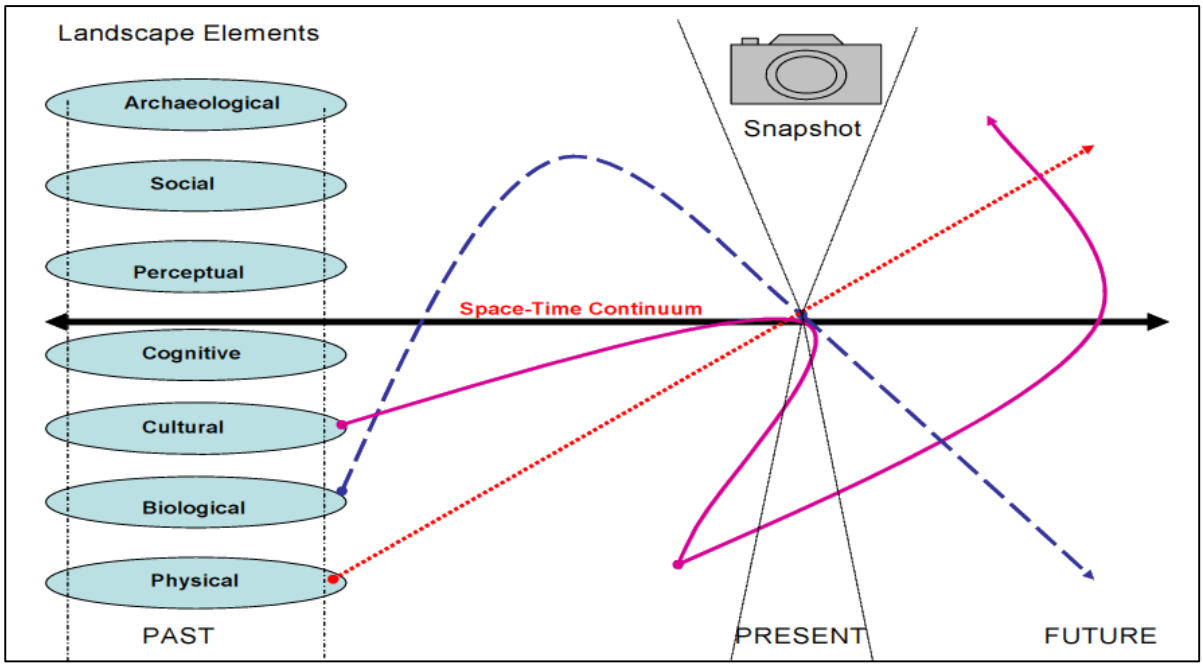


Figure 4.1. A schematic diagram of the structural elements of landscape and the variable trajectories in space-time that manifest as places(s) in the present (from Cotter, 2009: xxiv).

At the most fundamental level a transdisciplinary approach crosses both the boundaries between academic disciplines and the boundaries between academic investigation and 'real-world' practice and does so in the concerted attempt to derive information from data that lies at the interface of human and natural systems (Hollaender, *et al.,* 2008; Pohl & Hirsch Hordan, 2008; Russell, *et al.,* 2008). In doing so it provides for an investigative framework that allows for collaborative knowledge generation between researchers and stakeholders. The distinguishing feature of this approach is not simply collaboration between researchers or 'experts' from different disciplines but also collaboration with the community of interest. The ability of an individual researcher or Project Officer to fuse (or integrate) knowledge from a number of different disciplines and engage with community stakeholders in the process of generating knowledge(s) thus becomes the key to such collaboration (Wickson *et al.,* 2006; Kueffer, *et al.,* 2007; Russell, et al., 2008; Pohl, *et al.,* 2008). Consequently, no single method is prescribed in a transdiciplinary approach rather flexible and adaptable project frameworks are required to allow methods to evolve if and when the nature and context of the investigation changes (Wickson *et al.,* 2006; Russell, *et al.,* 2008).

In using this approach to identify and investigate the cultural values of the PCWP in the Project, Tocomwall has sought to:

- Integrate scientific expertise and cultural knowledge in all elements of the research project but especially by developing a collaborative partnership between the PCWP knowledge holders and the technical experts retained by Tocomwall; and
- Use multiple research and investigative methods including (but not limited to):
  - desktop archival research and literature review of disparate source materials of environmental, archaeological, ethnographic and historical information of relevance to the PCWP and its links to the Project;
  - Limited rapid-infield assessment of the Project to identify the traditional, historical and/or contemporary natural resource values in the Project; and
  - Consultation and informal interviews with members of the PCWP, in accordance with the agreed protocols of the PCWP as to who can and does speak for each family on these matters.

An important consideration in the use of multiple research and investigative methods for this cultural values assessment is the range of literacy and numeracy skills held by members of the PCWP; and the consequent individual variation in the use of and access to public information sources by them. The use of and access to source materials is important in the context of understanding the derivation of the cultural value information provided about the Project area by the PCWP. Ultimately, knowledge of the information sources used to ascribe meaning and value to an item or place enables some temporal classification of these values. For example, it has previously been identified that Aboriginal natural resource use knowledge within parts of NSW derives from three separate but interlinked and overlapping sources (Cotter *et al.,* 2004). The first of these is knowledge that, in principal, can only be described as having been derived from traditional custom and practice and that generally requires the intergenerational communication of such knowledge by oral story and/or by physical example. This knowledge might, for example, pertain to the creation of nets for trapping fish from native plant species in the form and pattern documented in the ethnographic record. This type of knowledge may also be shown to have been subject to adaptation in the historical period. Thus fish traps of traditional form may be recollected as having been made by grandparents using non-native species such as willow; and or more recently to have been made using 'chicken wire'.

The second type of Aboriginal natural resource use knowledge often derives from the involvement of Aboriginal people in the pastoral industry and their consequent adaptation of traditional methods to non-historical practices. For example Charlie Franks recollected how his father would use paperbark (*i.e*. the bark from *Melaleuca* species) as a wound and poultice cover for his injured stock horses and cattle. The final type of knowledge about Aboriginal natural resource use comes from current and accessible literature and other media such as television and the internet. The PCWP are members of contemporary Australian society as well as being traditional Aboriginal owners of Wonnarua country. To this end the ecological values identified by the PCWP in the Project area may also be those that have been referenced in a number of contemporary sources including: Appetiti, 2005; Bryce, 1992, Cribb& Cribb, 1981; Daw *et al*., 1997; Gaikwad, *et al*., 2008; Green, 2003; Harris, *et al.*, 2000; Hiddins, 2003; Julwarlu Aboriginal Corporation, 2003; Lassak & McCarthy, 2001; Latz, 1995; Lindsay *et al.*, 2001; Maslin, et al., 1998; McKerney & White, 2011; Miller *et al*., 1997; Puruntatatemeri *et al*., 2001; Stewart & Percival 1997, Turner-Neale, 1996; and Wightman & Brown, 1994.

The information sources from which the cultural values of The Project (and its surrounds) are derived are necessarily identified; as the subsequent classification of this information into temporal classes such as traditional, historic and contemporary knowledge(s), provides form to the mixed-mode analysis of cultural value. However it should not be misconstrued that this privileges one temporal class of values knowledge over another. Each values class is equally important as a component of the sum cultural values that the PCWP have and retain in the Project as a traditional owner group with ongoing connection to it.

4.3.3 Cultural values

The cultural heritage values that are explored and explained in this report are those encompassed by the broad umbrella of terms used in the *Burra Charter* (Australia ICOMOS, 1999) to explain cultural significance. This Australian Charter provides a primary and 'best-practice' framework within which decisions about the management of cultural heritage in Australia should be made. The Burra Charter defines cultural significance as being derived from the following four values (Walker & Marquis-Kyle, 2004):

- **Aesthetic value**: This value derives from aspects of human sensory perception for which criteria can and should be stated. These criteria may result from consideration of the form, scale, colour, texture and material of the fabric; the smells and sounds associated with the item or place and its use.

- **Historic value**: This value encompasses the history of aesthetics, science and society, and therefore, to a large extent, underlies all other heritage values. A place may have historic value because it has influenced, or has been influenced by, an historic figure, event, phase or activity. It may also have historic value as the site of an important event. For any given place the significance will be greater where evidence of the association or event survives *in situ*, or where the settings are substantially intact, than where it has been changed or evidence does not survive. However, some events or associations may be so important that the place retains significance regardless of subsequent treatment.

- **Scientific value***:* The scientific or research value of a place will depend upon the importance of the data involved, on its rarity, quality or representativeness, and on the degree to which the place may contribute further substantial information. In the context of cultural landscape analysis, it is the view of Tocomwall, that this value must necessarily be broadened from the typical focus on the scientific analysis of material culture remains (i.e. archaeological science) to consider the application of natural science techniques, particularly those associated with ecological analyses (particularly flora, fauna and biodiversity studies) in the evaluation of Aboriginal cultural values.

- **Social value:** This value embraces the qualities for which a place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group. Thus in this study the primary (and only) focus is the social value(s) of the subject area to the PCWP.

4.3.4. PCWP consultation and participation

The authority of the PCWP to speak for Wonnarua country and to be involved in decision-making regarding the protection, and management of Wonnarua lands and waters is asserted on the basis of identification and recognition of individuals as Wonnarua people by cognate descent. Under Aboriginal law membership of the traditional owner PCWP group is a matter that is determined by Wonnarua people according to their traditional laws and customs. For the PCWP kinship is the idiom through which customary law is expressed:

> "The reckoning of land tenure interests…on the basis of genealogical relationships is itself an implicit instance of customary law. That is, the laws of descent and of other kinds of relatedness practiced by a particular group are themselves part of customary Aboriginal land tenure law."
>
> (Sutton, 1995: 11).

In so far as consultation with the PCWP has occurred about this Project, Tocomwall at all times has informed the PCWP Heads of Family as to its purpose, progress and outcomes. From the outset the Project has been a fully cooperative exercise between the PCWP membership and Tocomwall and the information presented in this report reflects the constant dialogue that has occurred between the Project Team and the PCWP.

4.4 Other Aboriginal Cultural Heritage Data: Aboriginal archaeological assessment information

This section presents information about the archaeological survey and test excavation programme undertaken within the Project Area by OzArk EHM Pty Ltd (OzArk) on behalf of Glencore during November to December 2012 and March 2013 respectively. Members of the PCWP participated in both the archaeological survey and the test excavation. The information was supplied by Ben Churcher of OzArk and represents his archaeological assessment and interpretation of the project Area. It is provided here as a useful summation of the landform types and archaeological resources currently known to occur within the proposed Project area.

4.4.1 Landform and archaeology in the proposed disturbance area: background information

The majority of the proposed mine disturbance area is located on sloping or elevated landforms that are at a distance from permanent water. Such landforms historically contain low numbers of artefacts, with sites generally either consisting of low density scatters or isolated finds. The construction of the new Hebden Road Bridge may cause disturbance across Bowmans Creek, which is the most constant water source in the survey area. This impact area is small and this portion of the creek has undergone previous disturbance from road and bridge construction, tracks for electricity and communication line easement access and past agricultural land use. A similar area of disturbance across and adjacent to Bettys Creek is proposed for construction of the new rail spur. A significant portion of this area has been subject to past archaeological salvage, undertaken as part of the existing Glendell Mine approval process.

The area is characterised as flat, with thin topsoil and extensively covered by recent Casuarina regrowth. At the time of the survey, Bettys Creek was dry and without ponds. The morphology of the creek suggests that it is now ephemeral although historically it had a chain of ponds morphology. The

only other notable drainage line is an ephemeral tributary of Main Creek, located in the eastern extent of the proposed Mount Owen North Pit extension area (referred to hereafter as 'the eastern drainage'). No water was in the eastern drainage at the time of the survey. There are several locations in its catchment that contain farm dams constructed by previous land owners. Hence, it is possible that the eastern drainage once contained ponds or swamps that have since been drained by gully erosion and dam construction.

In general, ground surface visibility was extremely low. In open paddocks, the visibility was obstructed by thick grass cover. In areas of tree cover, thick mats of dead leaves covered the ground. Exposure incidence was low across the proposed disturbance area, with extensive erosion scalds limited to the eastern drainage. Nonetheless, historic effects of sheet erosion were noticeable, with thin topsoil noted across the proposed disturbance area. Soils ranged from skeletal on the slopes and elevated landforms to thin along Bettys Creek (old archaeological excavations adjacent to the creek that are still extant showed less than 10cm of topsoil remaining). A series of test excavation trenches and grader scrapes have been previously excavated across the Bettys Creek floodplain and most yielded thin or truncated A Horizon soils and a variable, although mostly low, density of artefacts.

The proposed development footprint has been disturbed by past agricultural land use and current approved mining activities. The entire area has been previously cleared and very few mature trees were noted during the field survey. In addition, dwellings, tracks, dams, fences and contour dykes have been constructed. These have had the effect of disturbing localised areas while the general use of the land for grazing has promoted sheet erosion and soil loss. Ground disturbance has also occurred from approved mining activities, including installation of gas wells for the existing Integra underground mine that underlies much of the Mount Owen North Pit extension area.

4.4.2 Summary Survey Results

As a consequence of the types of landforms within the proposed disturbance area and the degree of past disturbance, very few artefact sites were recorded during the OzArk survey. In total 11 artefact scatters and 3 extensions to previously recorded sites (see Figure 4.1) and 20 isolated finds (see Figure 4.2) were identified. Further description of these findings are provided below for the areas of the North Pit Extension, the southern portions of Betty's Creek; and a small portion of Bowman's Creek.

4.4.2a Mount Owen North Pit Extension Area

In the sloping and elevated landforms to the east, twelve isolated finds were recorded in landforms with thin topsoil. This indicates a high likelihood that there are no associated archaeological deposits associated with these sites. In areas more associated with drainage systems, four low density artefact scatters were recorded, along with one extension to a previously recorded site.

The characteristics of artefact scatters recorded in this area are as follows:

- 160 artefacts were recorded in an eroded section of the eastern drainage;
- 30 artefacts were recorded within the constructed Bettys Creek diversion channel, amongst the spoil generated from the excavation of this feature. The artefacts in this area are not in direct association to Bettys Creek but appear to represent artefacts originating in the surrounding flat landform;

- A low density scatter of twelve artefacts were recorded on an ephemeral tributary to Bettys Creek; and
- Eleven artefacts recorded in a disturbed area within the location of a former archaeological salvage programme (AHIMS registered sites #37-3-0636 and #37-3-0649), located on a low rise above an area that may have once supported swamp vegetation.

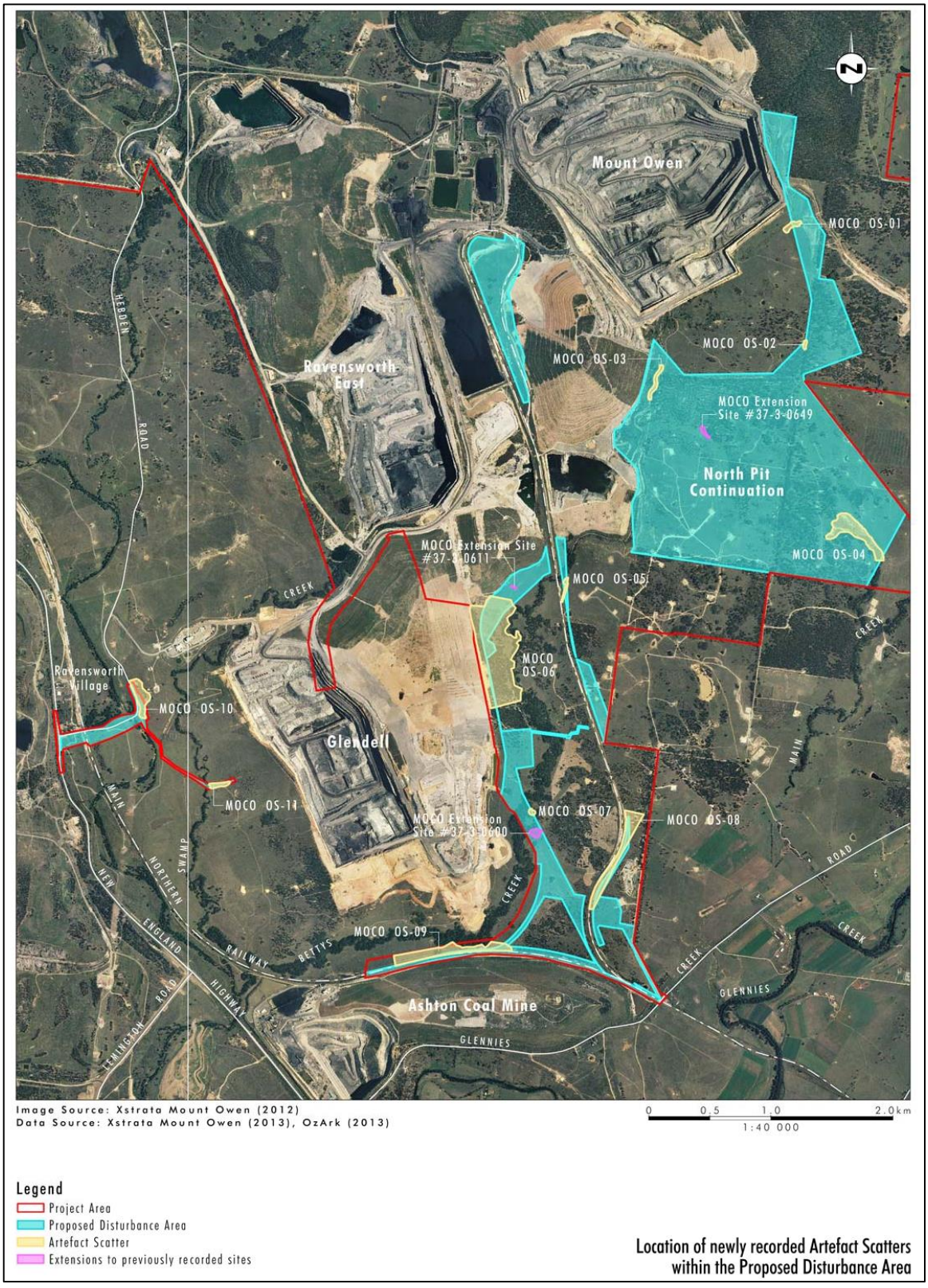


Figure 4.1. Location of new artefact scatters and extensions to existing sites recorded during the archaeological assessment conducted by OzArk of the Mt Owen Continued Operations Project disturbance footprint (Source: Glencore Mt Owen).

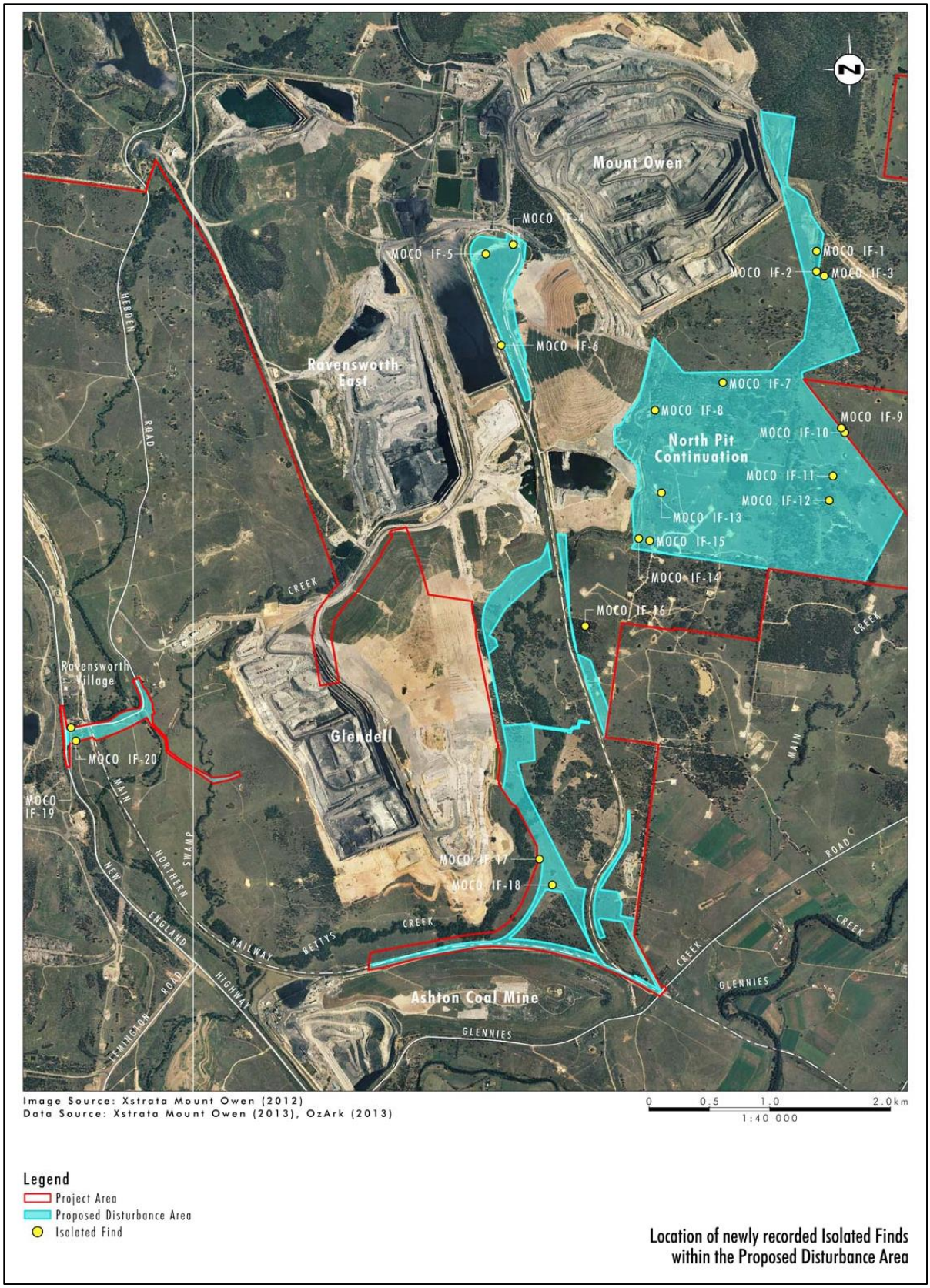


Figure 4.2. Location of 'isolated finds' recorded during the archaeological assessment conducted by OzArk of the Mt Owen Continued Operations Project disturbance footprint (Source: Glencore Mt Owen).

These low numbers of identified artefacts may in part, be attributable to the low ground surface visibility. However, the majority of the landforms in this area are upslope or elevated landforms distant from permanent water sources. This type of Upper Hunter Valley landform is generally characterised with low artefact densities, small site size and low site complexity.

4.4.2b Bettys Creek Area

In the southern portions of Bettys Creek, five low density artefact scatters, three isolated finds and two extensions to previously recorded sites were recorded. This area has also been subject to extensive previous archaeological salvage programs. The lack of artefact sites noted in this area are attributable both to the landscape, as well as past disturbances in the area, including archaeological salvage, that have potentially removed many sites from the current archaeological landscape. As noted above, this area is characterised by thin topsoil and recent Casuarina regrowth, indicating that the area has been subject to past clearing and erosion. Secondly, Bettys Creek is a variably flowing water source and therefore low artefact site densities are to be expected.

4.4.2c Bowmans Creek

Only a small portion of bank, floodplain and associated lower slopes of Bowmans Creek were assessed as the proposed disturbance area is limited. No artefacts were recorded on the floodplain but a number of isolated finds and one low density artefact scatter were recorded on the lower slopes on both the eastern and western sides of the creek. This is in accordance with the previous site distribution recorded in this area, namely that the creek and its floodplain have poor conditions for the preservation of archaeological sites, while evidence of occupation is mostly located on the lower slopes where sites may be preserved beyond the range of most flood events.

4.4.3 Test Excavations: Description and results

Two locations within the proposed disturbance area were subject to test excavation by OzArk. These were conducted in accord with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010). The first location was adjacent to the artefact scatter recorded along the Bettys Creek diversion channel (MOCO OS-3) and the second was adjacent to the eastern drainage (MOCO OS-4). The excavations at MOCO OS-3 recorded no artefacts in the 30 excavated pits. This result demonstrated that MOCO OS-3 is a displaced site with no adjoining intact archaeological deposits. The excavations at MOCO OS-4 recorded 114 artefacts from 58 excavation pits located adjacent to the eastern drainage. Over 80% of these artefacts came from one concentration located in a residual land surface between the two arms of the eastern drainage. This concentration of artefacts was associated with a small cranium fragment and, possibly, a shallow pit. While this concentration showed spatial integrity and moderate artefact numbers, elsewhere across the site the artefact density was low, very low or non-existent. Even pits located 5 metres from the artefact concentration recorded no artefacts showing that the concentration is an isolated phenomenon. The test excavation demonstrated that there is a generally low density of subsurface artefacts at MOCO OS-4 as well as one known concentration of artefacts. This data indicates that the eastern drainage was sporadically used for events such as, perhaps, hunting/butchery (*cf*. cranium fragment) but not for occupation due to the lack of evidence for extended use in the past. Further, the 58 pits excavated at MOCO OS-4 sampled the site comprehensively and it is unlikely that further archaeological investigation would add to the information already gained.

4.3.4 State of current archaeological resource

The results from the archaeological survey and test excavation program are representative of information that has been gained from other archaeological investigations in adjoining landforms where the dominant site types are low density artefact scatters and isolated finds. This result is a product of both the types of landforms under assessment and history of past land uses that have manifested in widespread modification of the archaeological landscape. The greatest determinant is that the proposed disturbance area has a low proportion of drainage landforms and the systems that are in the proposed disturbance area are all small with a highly variable water flow that diminishes their attractiveness for occupation. In addition, the proposed disturbance area has been completely cleared of trees in the past and subject to major soil loss, as well as other impacts such as mine infrastructure, revegetation and previous archaeological salvage. This has had the effect to remove or displace many sites within the proposed disturbance area.

It can be noted that sites of this type are becoming rarer in the greater Ravensworth area as the concentration of mining has initiated many archaeological salvage programs that have effectively removed well over half of this site type from the immediate region (emphasis herein added by Tocomwall on behalf of PCWP to emphasise this external summation of the extent of cumulative loss of sites in this area). The condition or integrity of the recorded sites is poor as sheet wash erosion and other disturbances have, in most cases, already displaced the artefacts recorded during this investigation. Results from the test excavation program and other archaeological investigations within the proposed disturbance area also demonstrate thin top soils and a lack of archaeological stratigraphy in the area.

4.3.5 Scientific Significance of current known archaeological resource

The current assessment has recorded 11 artefact scatters, 20 isolated finds and three extensions to previously recorded sites.

The overall scientific significance of sites within the Proposed Disturbance Area has been lowered due to:

- wide-spread soil loss that affects nearly all portions of the Project Area;
- major disturbances from approved mining activity including built infrastructure, soil dumps, tracks, the diversion of water away from creeks and other mine related impacts such as revegetation programmes;
- the archaeological landscape within the Proposed Disturbance Area being fragmented by approved mining; and
- the varying degrees of archaeological salvage that has been carried out.

As a result, no areas are assessed to have high or moderate scientific significance.

The majority of sites (31; including 10 artefact scatters, two extensions to previously recorded sites and 19 isolated finds) have been assessed as having low scientific significance. In most cases this is because the sites are low density artefact scatters or isolated finds located in landforms with thin A Horizon soils where further subsurface archaeological deposits are unlikely. In some cases the artefacts may be more numerous but erosion has affected a large percentage of the site and the visible artefacts are displaced and of limited archaeological value. The high frequency of low scientific

significance is directly related to the extensive and long-running previous disturbances within the Proposed Disturbance Area.

Three sites have been assessed as having low-moderate scientific significance. Two of these sites are artefact scatters and they carry this slightly higher assessment as they have the possibility of further subsurface archaeological deposits although these deposits are likely to contain a low density of artefacts. The third site (MOCO IF-16) attains this level of significance due to the rarity of the artefact type, rather than its association to other artefacts or to subsurface contexts.

Table 1 (below) presents the scientific significance assessment of the artefact scatters and isolated finds recorded during this assessment. Under the column 'Rationale' a brief explanation is given of those site features that elevate or lower a particular site's scientific significance.

Table 1:Scientific assessment of the archaeological sites within the Project area (Source OzArk, 2013).

Site Number	Site Description	Scientific Significance	Rationale
MOCO OS-1	Artefact scatter covering approximately 157m by 40m along minor ephemeral tributaries to Bettys Creek. Located in the north of the Proposed Disturbance Area. Extends outside the Proposed Disturbance Area.	Low	Low density scatter High disturbance Previous archaeological salvage
MOCO OS-2	Artefact scatter covering approximately 78m by 24m in a flat portion of a lower slope landform. Not associated with any obvious waterways. Located in the north of the Proposed Disturbance Area.	Low	Low density scatter Thin A Horizon soils Low potential landform
MOCO OS-3	Artefact scatter covering approximately 305m by 28m along the Bettys Creek diversion. Highly disturbed site. Located in the northwest of the Proposed Disturbance Area.	Low	Re-deposited site No archaeological deposits in adjoining areas as testing confirmed
MOCO OS-4	Artefact scatter extending approximately 525m by up to 263m on both banks of the eastern drainage. Located in the northeast of the Proposed Disturbance Area.	Low-Moderate	Low density scatter Some potential for further subsurface artefacts Low potential for further discrete concentrations of artefacts as seen in the test excavation program Archaeological integrity present but very limited in its extent.
MOCO OS-5	Artefact scatter extending approximately 208m by up to 30m along a water drain to the east of the Mount Owen rail spur. Located in the centre east of the Proposed Disturbance Area.	Low	Low density scatter High localised disturbance Representative of the background density of artefacts associated with the banks of Bettys Creek
MOCO OS-6	Diffuse artefact scatter on the west bank of Bettys Creek in the Bettys Creek Habitat Management Area. The site spans the Proposed Disturbance Area (rail spur).	Low	Diffuse artefact scatter Thin A Horizon soils Representative of the background density of artefacts associated with the banks of Bettys Creek Previous archaeological salvage

MOCO OS-7	Low density artefact scatter on the east bank of the main channel for Bettys Creek. The site spans the Proposed Disturbance Area (rail spur).	Low	Very low density scatter Representative of the background density of artefacts associated with the banks of Bettys Creek
MOCO OS-8	Low density artefact scatter in an area of general high disturbance. Located to the east of the existing Mount Owen rail spur. The site spans the Proposed Disturbance Area (rail spur).	Low	Low density scatter High disturbance Thin A Horizon soils Low potential landform
MOCO OS-9	Medium density artefact scatter located along a service track immediately north of the main rail line. The site is immediately adjacent to Bettys Creek that is located to the north of the site. The site spans the Proposed Disturbance Area (rail spur).	Low	Medium density scatter Moderate disturbance Previous archaeological salvage Thin A Horizon soils
MOCO OS-10	Low density artefact scatter located on a rocky rise adjacent to the northern bank of Bowmans Creek. The site spans the Proposed Disturbance Area (Hebden Road realignment).	Low	Low density scatter High disturbance Thin A Horizon soils
MOCO OS-11	Very low density artefact scatter on the east bank of Swamp Creek.	Low	Low density scatter Thin A Horizon soils
MOCO Extension to site #37-3-0649	Located on the northern bank of a tributary to Bettys Creek.	Low	Low density scatter Thin A Horizon soils Previous archaeological salvage failed to locate artefacts
MOCO Extension to site #37-3-0611	Located along a minor, ephemeral tributary to Bettys Creek.	Low-Moderate	Low density scatter A Horizon soils present Moderate potential landform with other extant sites in the vicinity Possibility of further subsurface artefacts at a low density
MOCO Extension to site #37-3-0600	Located 30m from the eastern bank of Bettys Creek.	Low	Extensively excavated during 2005/2006 Recorded shallow deposits, low density artefact counts and an absence of archaeological stratigraphy Remaining artefacts are representative of the background density of artefacts associated with the banks of Bettys Creek
MOCO IF-1	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-2	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-3	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-4	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-5	Flaked stone artefact	Low	No associated artefacts or archaeological deposits

MOCO IF-6	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-7	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-8	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-9	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-10	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-11	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-12	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-13	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-14	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-15	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-16	Flaked glass	Low-Moderate	Knapped glass artefact with clear flaking characteristics Rare artefact type No associated artefacts or archaeological deposits
MOCO IF-17	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-18	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-19	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-20	Flaked stone artefact	Low	No associated artefacts or archaeological deposits

5.0 RECOGNISING THE PCWP VALUES IN THE MT OWEN CONTINUED OPERATIONS AREA: RESULTS

5.1 Introduction

This section reports the results of the exploration and documentation by the Tocomwall Project Team of the historical, social, aesthetic and scientific values held by the PCWP in the Project Area. What follows is a complex record of the multiple and interconnected values held by the PCWP in the Project area and its surroundings. To achieve this record the Project Team has relied upon the integration of western and Aboriginal knowledge traditions. Information has been documented with reference to regional and local family histories and archives; formal and informal contemporary oral history and storytelling activities undertaken by and/or with PCWP members; active field participant observations; scientific evaluation of potential and likely ethno-ecological values based on limited site inspection, interrogation of fauna and flora survey data for the mine site; and comparative analysis with data of similar values elsewhere obtained from the PCWP (i.e. Tocomwall, 2012a). Further, to facilitate the identification, elicitation and elaboration (including an necessary exploration of connection and overlap) of values and their contexts an 'historical narrative' or 'storytelling' approach has been adopted as the primary presentation mode for all the values held by the PCWP in the Project (*cf*. Masson, 2002; Satterfield, 2002). What is demonstrated by this narrative approach is that the Project area is a multivalent Aboriginal cultural landscape of immense importance to the PCWP. It is an integral part of Wonnarua Country with ancestral, historic and contemporary values that are fundamental to the identity of the PCWP.

5.2 Historical values

The capacity of an object, place or landscape to convey, embody or stimulate a relation or reaction to the past is part of the fundamental nature and meaning of heritage; and consequently historical values are recognised to be the root source of all other cultural heritage values (Mason, 2002; Marquis - Kyle & Walker, 2004). Historical values can accrue to an item, place or landscape on the basis of

- its antiquity;
- its ability to represent and/or evoke an historical period or theme,
- its association with people or events of importance in the course of local, state or national histories; and/or
- its rarity and/or uniqueness in its historical and/or environmental contexts.

This section of the report focuses on the documentation and assessment of historical values recognised in the Project by the PCWP. In particular it outlines those cultural values of the Project that result from the association of the PCWP with people, events and/or places of importance in the course of the local history of the Ravensworth-Camberwell area, especially where these historically important people places and/or events have physical markers or referents within the Project.

5.2.1 Associative values

The most enduring of historical values held by the PCWP in the Project Area and its surrounds derive from the multiple associations with the area that result from the lived experiences of the Franks, Smith and Lester families. Maria Stocks describes the foundation of her historical associations with the landscape that encompasses Mt Owen within a recent statement she provided to the National Native Title Tribunal. Selected paragraphs of this statement (Stocks, 2012, para. 1-3, 8, 12-13.) are provided

below. Where attachments are noted in the original statement, annotated copies of these are included at **Attachment 10.1** of this report.

1. My name is Maria Stocks (nee Foot). I am 51 years old and have lived in Singleton all my life. I am a mother of six children (Mellisa, Douglas, Miranda, Brittany, Jeremiah and Annastazia) and a grandmother to five. I am a proud Wonnarua woman who has always known of and been told about my Aboriginal heritage. My Aboriginality derives from the ancestral line of my mother Barbara Foot (nee Smith) (**Attachment A**). Mum was born in Singleton in 1937, the daughter of Alma Mabel Lester and James 'Leslie' Smith who, in turn, were both descendants of Matilda Hughes (**Attachment B).** I have a brother David and we are the only two children mum had with her life partner Robert Foot. Dad was a non-Aboriginal man who was originally from Denman. He passed away in 1996.

2. Mum passed away in February this year at the age of 73. At the time of her death mum was a well-known Aboriginal Elder who was respectively [and affectionately] referred to as "Aunty Barb" throughout the Hunter Valley. In fact I recently had the honour of receiving two awards posthumously given to mum for her outstanding contribution to Aboriginal culture and heritage; and the local Indigenous community (**Attachment C**). These awards acknowledged mum's respect for Wonnarua lores and customs and her efforts to teach people about our culture and the values of Wonnarua country. My mum was proud to acknowledge the wedge-tail eagle as her totem and would tell all how it watched over and protected Wonnarua Country.

3. In the months prior to her death, to ensure that the lores and customs of our people would be continued and transferred, mum insisted that I take on the role and responsibility of Head of Family, a role that she had held in our community for some time. The lores and customs of our family groups were not voted upon but were handed down, usually by the passing of an elder. It was usually a man's role to be the Head of Family but if for whatever reason a male person didn't accept the responsibility it would be transferred 'down the line'. My mother Barbara Foot was our family Elder and spokesperson as she had been the 'next in line' upon the passing of her father. In this way the Head of Family role was handed down to me. I accepted the role from my mother and I am now the Elder and spokesperson for our family.

8. My grandmother Alma Mabel Lester (**Attachment D**) was born at Mt Olive on 5 April 1906. "Pop" (James Leslie Smith) was born 20 August 1903 at Goorangoola in a house that, as far as I know, still remains standing today. During their early life both Gran and Pop went to School at St Clair Mission. Gran was 'taken' from her mother when she was about ten years old and was placed in a Judge Bevan's place at Sydney for some time. She returned to Singleton when she was about eighteen. "Pop" worked for a time as a logger in the State Forests at Mt Royal and at Ravensworth. He had a cross cut saw and a double ended axe and taught David and I how to cut different types of wood. He also worked as drover moving stock for landowners throughout the Singleton district. These jobs kept him away from the mission and enabled him to wander through, see and visit the special places shown to him by the old people.

12. Pop would often go up into the bush and didn't come back for days. Sometimes too my dad and my brother David would go up to Mt Royal with Pop on the horses. They would leave in the morning and come back only at sunset. During these trips my dad and brother were taught many things about Wonnarua country by my Pop including the ways of the old people, and also about men's business, although this was mostly for my brother David to hear, listen and learn. David still says that Pop didn't tell him all that he knew as talking about the old ways to the young ones was looked down upon.

13. It was important for my Pop to always be in Wonnarua Country. He always stipulated that if you weren't born in Wonnarua Country you weren't/couldn't be classed as Wonnarua. Also, if you left the country for more than a year, depending on the reasons why you had left, you were most likely to be accepted back into the Plains Clan but you shouldn't/couldn't/wouldn't ever be able to speak with authority about the lores and customs of the people.

It is both the antecedents and descendants of Matilda Smith (nee Hughes) that are intimately associated with the people and places of the Bowman and Glennies Creek catchment areas, and some of these key associations are outlined below. It must be emphasised that the historical associations

described are the key associations only; and the descriptions are limited only to that detail necessary to convey the association. Throughout the period of research and documentation of the cultural heritage values held by the PCWP in the Project area and its surrounds, it has become increasingly clear that there is a detailed and complex record of the association of the PCWP with this area. It is the view of Tocomwall that further research is required to fully articulate this complexity; and its depth of meaning to the PCWP; and this is beyond the scope of this report. As far as possible the key associations outlined are provided in chronological order with the earliest associations being described first.

5.2.1a James Franks and Dr James Bowman.

James Franks, the non-Aboriginal antecedent who gives his name to the Franks family within the PCWP, arrived in Australia, as a convict on the Lord Eldon in 1817 (Figure 5.1). By coincidence the surgeon who ensured the health of all 220 convict men aboard this ship, including James Franks, was Dr James Bowman (Figure 5.2). Dr James Bowman was later granted land in the parish of Ravensworth, County of Durham, in the Hunter Valley (See Figures 2.3 & 2.4). Mt Owen lies within the area that pertains to this original grant. It is interesting to note that on board the Lord Eldon in 1817 were John Macarthur Snr and his sons John and William who were returning to Australia after a period of exile (Figure 5.3). In 1823 James Bowman married Mary the second daughter of John and Elizabeth Macarthur. Mary's dowry of at least 2000 merino sheep and more than 200 head of cattle was the impetus for Dr Bowman to seek a grant of land commensurate with his fortune (Gray, 1966). This grant of land plus additional purchases meant that his Ravensworth Estate exceeded 12,000 acres (4856 ha). Whilst for much of his life James Bowman resided in Sydney allowing others to oversee his Hunter Valley Estate, in 1838 he retired with his family to Ravensworth, and lived there until his sudden death in 1846 (Gray, 1966).

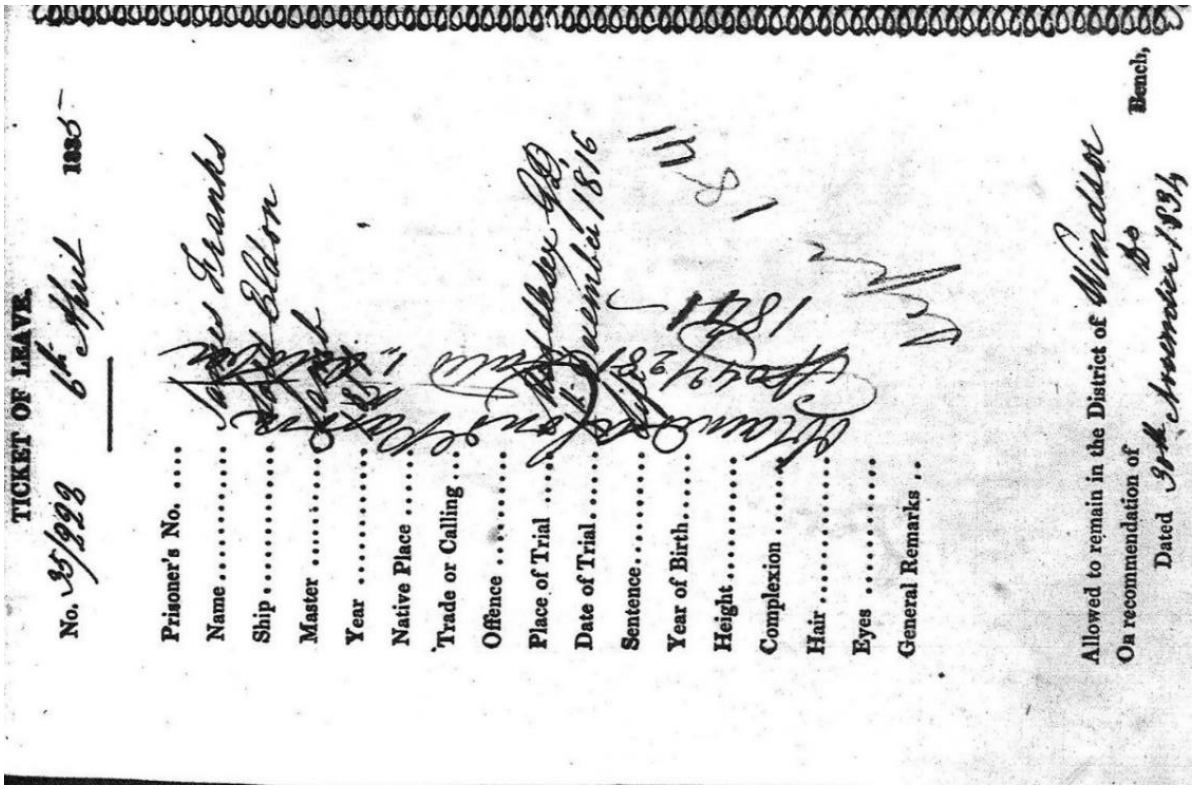


Figure 5.1 Ticket of Leave record for James Franks indicating his passage to Australia on the Lord Eldon in 1817.

The potatoes brought by the brig Dragon from Port Dalrymple are unexceptionably the finest we have ever received from thence; they run generally of a good size, are of a strong farinous and mealy quality, and are sound throughout, having been kept perfectly dry during the passage, which was only 7 days.

This is Dr. Bowman's third voyage to this Colony, in the charge of prisoners, last in the Lord Eldon, here in December, 1817; and it is happy to recollect that twice out of the three times, he has had the gratification of not losing a single man. Those now arrived under his care are in excellent health, and have a very clean appearance.

Figure 5.2 Extract from the Sydney gazette and New South Wales Advertiser, Saturday 2 October 1819 noting Dr James Bowman as the surgeon who maintained the health of passengers on the Lord Eldon in 1817.

Ship News.

On Tuesday arrived from England, with 220 male prisoners, the ship Lord Eldon, Captain Lamb. She left England the 9th of April, and called at Madeira and Rio de Janeiro, at which former place a prisoner effected his escape, by swimming on shore; and four others died on the passage. The military guard consists of a detachment of the 46th regt. commanded by an Officer of the 1st Royals.—Passengers, John M'Arthur, Esq; and two sons, Mr. William and Mr. John M'Arthur.

Figure 5.3 Extract from Sydney Gazette Saturday 4 October 1817 reporting the arrival of 220 male convicts aboard the Lord Eldon. It makes particular note of its free passengers, John Macarthur Snr and his sons William and John Jnr.

Upon arrival into the colony James Franks was assigned to work first in a road-gang and then later became an assigned servant in the Windsor - Penrith District. He remained in this Windsor District for the remainder of His life. In 1843 he married the female convict Mary Millet and in 1852 their son John Caleb Franks was born[11]. It is John Caleb Franks who transforms the Franks association with Ravensworth from one of coincidence and historical familiarity with the owner of the Estate to one of physical reality (See section 5.2.1e).

5.2.1b St Clements Church Camberwell

The Anglican Church of St Clements (Figure 5.4) is located on the western outskirts of the Village of Camberwell, about 5 km south of Mt Owen. The Register entry of the marriage of James Smith to Matilda Hughes at this Church, in December 1856, is the key document that affirms the Aboriginal ancestry of the Smith-Hughes Family line and gives historical witness to the claims of the PCWP to their unique Wonnarua identity. A scanned copy of the page entry of this Church register, in which Matilda Hughes' mother is identified as 'Mary Aborigine' is presented at Figure 5.5. At the time of her marriage Matilda was recorded as being 24 years of age and residing on the property 'Sydenham'. In addition, this same Church Register records the baptism in June 1856 of the first child of James Smith and Matilda Hughes, their daughter Mary Smith who is recorded as having been born in January 1856



Figure 5.4 St Clements Anglican Church, Camberwell (Maria Cotter, March 2013).

(Figures 5.6). It seems therefore that Matilda Hughes had resided at Sydenham for, at least, some years prior to her record of marriage. If the record of Matilda's age is accurate at the time of her marriage, then her birth to 'Mary Aborigine' occurred *c*. 1832, within eight years of the first grant of the land that became 'Sydenham' was made to John Brabyn in 1824 (Dangar, 1828). To have reached maturity by this time 'Mary Aborigine' must have been alive both at and before the time of first sovereignty within the Hunter Valley. At the time of Matilda's birth, it appears that Mary was in the

[11] The genealogical relationships between James Franks convict and the Franks Family as members of the PCWP is illustrated with reference to the ancestral chart prepared for Scot Franks the NSW Native Title Services that is included at Attachment 10.2..

vicinity of Invermein (later Scone) as several of the birth certificates of Matilda's children place her as having been born at Scone[12].

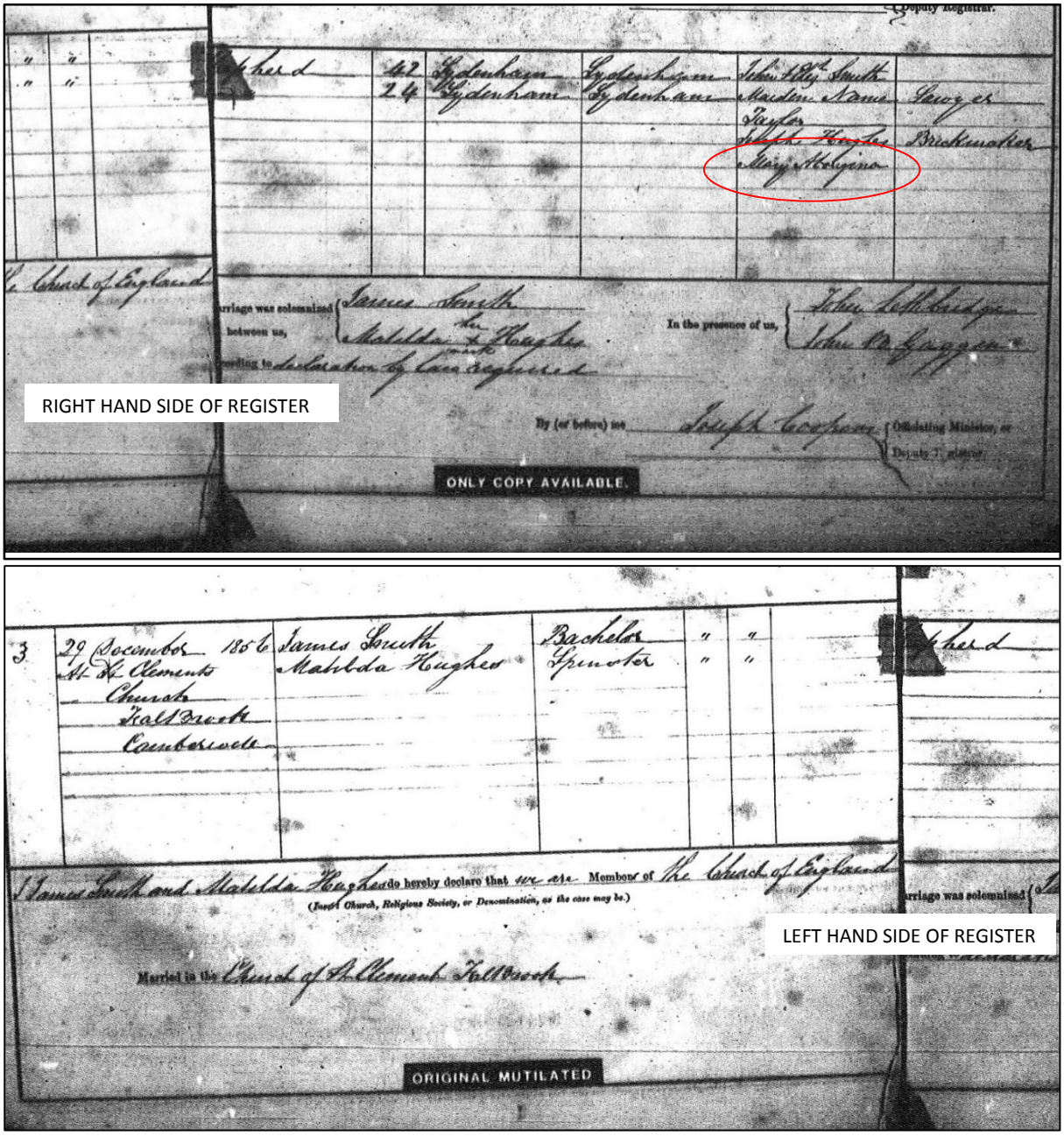


Figure 5.5 Cropped and enlarged scanned image of the St Clements Anglican Church Register (Source UNE Heritage Centre, [Armidale] Anglican Diocese of Newcastle, microfiche archive Reel A5853)

[12] The death certificate of Matilda Hughes (see Figure 5. 5) suggests she was 23 at the time of her marriage. This means she would have been born sometime in 1833 or even early 1834. Given documents that indicate that Matilda was born in Scone, this younger age at marriage seems to better equate with the details of a convict bricklayer named Joseph Hughes [her probable father though investigation still required to further verify this as fact] who arrived in Australia on the ship 'Andromeda' in March 1833 and who was first assigned to work in the Scone area.

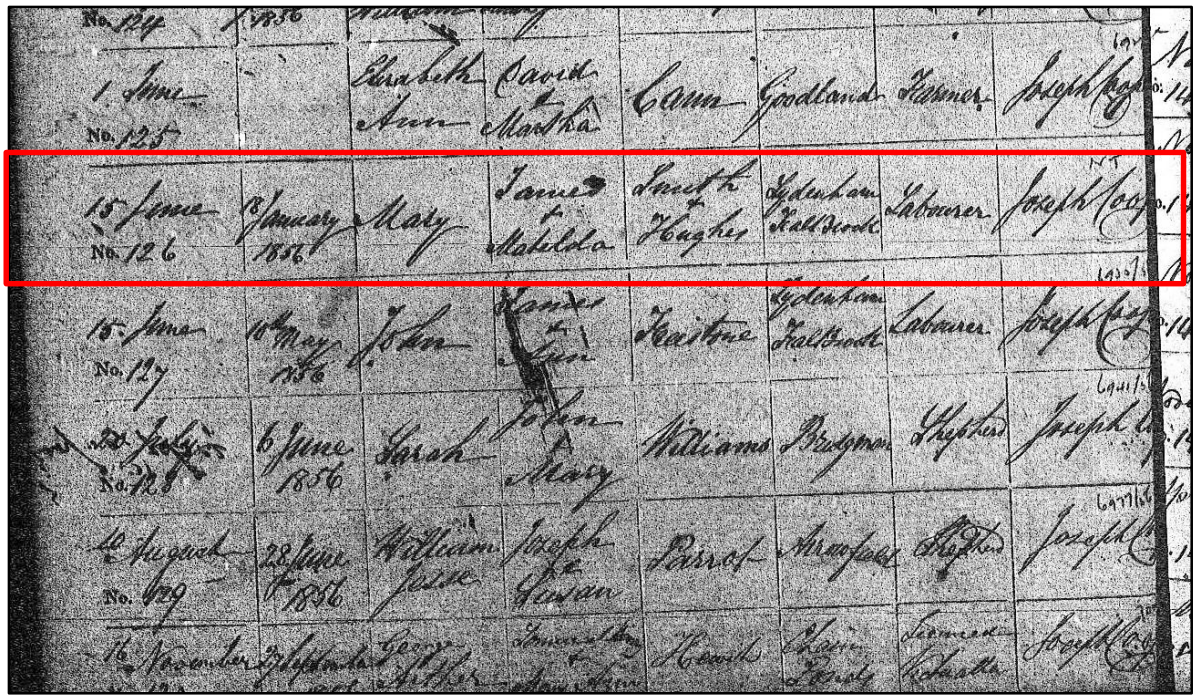


Figure 5.6 Enlarged extract from the Baptismal Register of St Clements Anglican Church Camberwell highlighting the birth and baptism of Mary Smith the eldest child of James Smith and Matilda Hughes (Source UNE Heritage Centre, [Armidale] Anglican Diocese of Newcastle microfiche archive, Reel A5853).

5.2.1c Colonial witnesses to 'inter-racial marriage' and related associations

The witnesses to the marriage of James Smith and Matilda Hughes were John Brabyn Gaggin of Sydenham and John Lethbridge of Bridgman (see Figure 5.5). The minister presiding was the Rev. Joseph Cooper. Interestingly, the record of the baptism of Mary Smith is preceded in the St Clements Church register by the baptism in May 1856 of Robert William Lethbridge the son of John (Figure 5.7). Interestingly too, the *Maitland Mercury & Hunter River General Advertiser* of Wednesday 5 February 1851 had earlier reported that:

> 'On the 29th January, at St Clements Church Falbrook, by the Rev. Joseph Cooper, Joseph eldest son of the Rev. Joseph Cooper, to Sarah Mary, eldest daughter of John Gaggin, Esq., of Sydenham"

It must be understood that at this time the area about Camberwell was not vastly populated, and it is almost certain that most of the Church attendees were known to each other. This view is supported by the fact that in 1856 contributors to a 'purse' to raise funds for a Mrs Walker in appreciation of her kindness in playing the harmonium at St Clements Church, were listed in the Maitland Mercury and Hunter River General Advertiser (figure 5.8). This list comprises less than 20 names, including Lethbridge and Gaggin (as well as Nowland, Noble, Chilcott etc.) most of which are of the prominent colonial identities within the local district. Likewise the Ecclesiastical Return for the year 1861 of the Church of England Diocese of Newcastle, reported that St Clements Church Camberwell could contain 75 persons but that general attendance was only 30 persons (Register Generals Office, 1862).

The Gaggin and Lethbridge families, and their associated properties, variously feature in the history of the central Hunter Valley during the colonial period. John Braybn Gaggin was the son of Mr John Gaggin and his wife Mary Brabyn. Mary was the daughter of John Brabyn the person first granted the

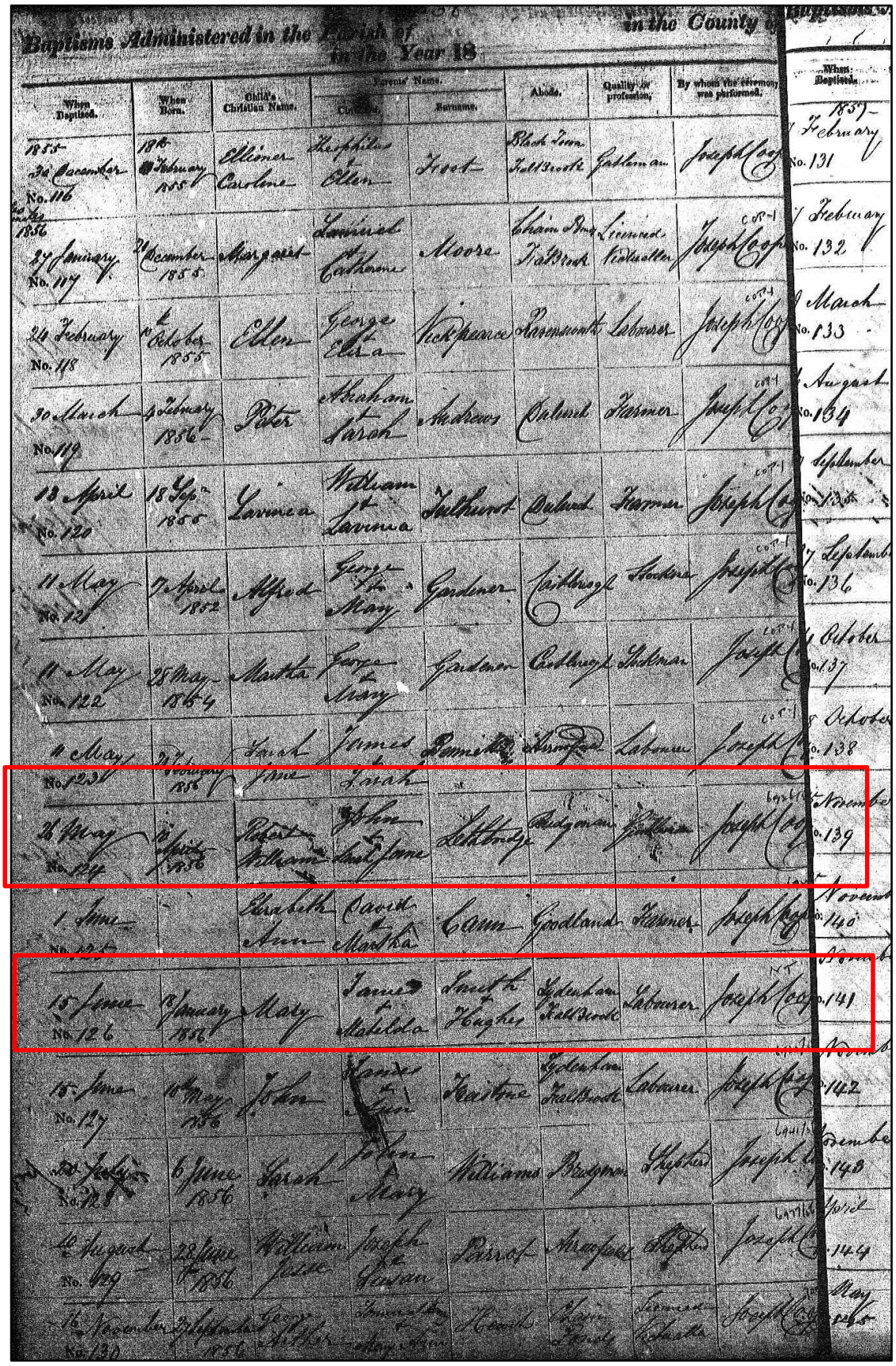


Figure 5.7 Extracted page from the Baptismal Register of St Clements Anglican Church Camberwell highlighting the birth and baptism of Mary Smith the eldest child of James Smith and Matilda Hughes as record No. 126. The birth and baptism of Robert William Lethbridge, son of John & Sarah Jane Lethbridge of Bridgman also appears as record No. 124 on the same page of the Register (Source UNE Heritage Centre, Armidale : Anglican Diocese of Newcastle microfiche archive, Reel A5853).

A PURSE, containing £10 10s., was presented by the undersigned to MRS. WALKER, for her attention and kindness in playing the HARMONIUM, at St. Clement's Church.

	£	s.	d.
The Rev. Joseph Cooper	1	1	0
Theophilus Foot, Esq	1	2	6
Richard Carter, Esq.	1	1	0
John Lethbridge, Esq.	1	1	0
John Gaggin, Esq	0	10	6
John Gaggin, Junr.	0	10	0
J. E. Davys, Esq.	1	1	0
Mr. William Nowland	1	1	0
Mr. William Carter	0	10	6
Mr. D. M'Farlane	0	10	0
Mr. A. W. Drane	0	5	0
Mrs. Chilcote	0	5	0
Mrs. Noble	0	5	0
Mrs. Cunneen	0	5	0
Mr. Cunneen	0	5	0
Mr. Thomas Baldock	0	5	0
Mr. George Sydney	0	5	0
Mr. John Moss	0	5	0
A. B. C.	0	1	6
	£10	10	0

Falbrook, 28th Oct., 1856. 6317

Figure 5.8 Extract from the *Maitland Mercury and Hunter River General Advertiser*, Thursday 13 November 1856. This provides clear evidence of the main district attendees at St Clements Church in 1856; and suggests that both John Smith and his wife Matilda were positively known to many of the prominent district residents (Source: http:/nla/gov/au/nla/news-article18656352).

portion of land that became 'Sydneham' in 1824 (Dangar, 1828, p.17.). It is commonly understood by the PCWP - and well documented elsewhere (e.g. Wood, 1972; Gollan, 1993, Millis, 1993) - that the Lethbridge property 'Bridgman' was the focal point of an 1826 attack by Aboriginals that resulted in the death of two white men within a station hut; and led to the raising of a party of Mounted Police that pursued and reportedly massacred up to eighteen Aboriginals in reprisal[13].

Eye witness accounts of these events indicate that the Aboriginal individuals who conducted this attack and other associated attacks on nearby Hunter River Estates including Merton, Edinglassie and Ravensworth (HRA, Vol. X11, pp. 610-612; Millis, 1992, pp.55) were recognised by the settlers/farm managers and/or the militia involved and, in some cases, individually named. John Woodbury in his sworn statement to Robert Scott, JP taken 'on the spot' the day after the attack on the Lethbridge property provided a comprehensive account of the event. The following are two extended excerpts from this deposition that illustrate the familiarity of the settlers with the Aboriginal party who attacked them:

> 'That I am at Hunter's River looking after Cattle, belonging to my Master. That the cattle are on Captain Lethbridge's farm, and I reside there also. That yesterday I came home about 12 o'clock, and found that 14 or 15 Blacks had just arrived. They were all armed. There was no one at home at that time, except Mrs. Allcorn (the overseer's wife) and a little boy. This boy was sent for two men who, who were working near the house; a Black followed the boy to see which way he went. The two men came with the boy, and the black with them. Mrs Allcorn desired me to give the Natives some Kangaroo to keep them quiet, which I did; and they roasted it at the fire and eat it. They then wanted bread and maize, and we told them we had not any. A few only came into the house; the others were at a fire they had made to roast the Kangaroo. The Natives stayed about the place without offering any violence in word or deed until about 4 o'clock when the overseer Allcorn came home.
>
> We then consulted together and thought it would be dangerous to allow so many armed Blacks to remain about the place, and accordingly ordered them to go away to the Bush, and not to remain about the Hut; this was told to two or three, who were in the Hut with us at the time. (what made us more anxious to get the Natives away was that there were three among them, who had been concerned in robbing Chilcott's hut some time before.). The Natives, who we desired to go away, immediately cried out to the others, who began to talk loudly among themselves; and the little boy, who was looking out of the door, cried out the Blacks were coming…
>
> …Soon after the Blacks had gone, Allcorn got up and was quite bewildered and talked nonsense.
> I know some of the Natives. Ball, Murray, Togy: - these three men were concerned in robbing Chilcott's hut; Brandy and a lad; who was once taken by the Soldiers and let go again on Mr Glennies farm; And a man who kept one of his eyes almost closed; And another short stiff fellow, whom I should know well. The others I don't recollect particularly.'
>
> John Woodbury, assigned servant to Mr. Thomas Cullen, Pitt Town sworn before Robert Scott, J.P. 29 August 1826.
>
> (*Historical Records of Australia*, Vol. X11, pp. 613-614,).

Likewise Captain Foley in writing to Lieutenant De La Condamine, the Military Secretary of the Colony, of his observations and actions in the immediate days after the attack, stated for example that:

> "It may be necessary to observe that all the acts of outrage have been committed without exception by Natives who are domesticated on the very Estates, where that have occurred, and not by the incursions of unknown or wild tribes; every one of those is perfectly and intimately known by names, they have received amongst the Settlers, near whom they have dwelt."
>
> Captain Foley to Lieutenant De La Condamine, Newcastle 22 September 1826
>
> (*Historical Records of Australia,* Vol. XII, p.619).

[13] "about eighteen" was the number of 'natives' reported dead after this 'hot conflict' in '*The Australian'*, Saturday September 23, 1826, p.3.

As already outlined (in Section 2.1.1a) a contemporary media report of the attack on Lethbridge's Station in 1826 concluded that the Aboriginal group involved was a 'mountain tribe' that lived in the neighbourhood of Glenny's [sic] Creek. After providing a description of the attack - that both parallels and embellishes the direct eye witness account of John Woodbury - this report also noted that:

> 'The black monsters made away towards the mountains and a speedy alarm was given. The most active and determined measures are said to be set on foot, but it is much to be feared that this mountain tribe will be very difficult to capture or subdue. Some friendly natives have joined in.'
>
> (*The Sydney Gazette and New South Wales Advertiser*, Saturday 9 September 1826).

It is through Mary 'Aborigine', the mother of Matilda Hughes, that members of the PCWP claim their Wonnarua identity and ancestral association with this event. Likewise the current PCWP membership consider that the entire course of Glennies Creek - from its headwaters near Carrowbrook and Mt Royal to its junction with the Hunter River - is part of the traditional home base and resource range of their ancestors. Moreover in their view Glennies Creek is one of the logical pathways that this Aboriginal party would have used to make their escape into the hills. This is especially important in the context of descriptions of where this Aboriginal party was apprehended by the Mounted Police. As Captain Foley later reported:

> 'On my arrival at Mr. Glennie's estate, I found the Detachment of a Corporal and six, despatched on Captain Allman's requisition, who, as well as the party under my own immediate orders, had been anticipated by the activity of Mr. Scott of Glendon, who with some of his people and some volunteers, with three soldiers of the Mounted police, pursued the murderers the second day after the outrage at Mr Lethbridge's farm, and succeeded by the aid of one of his own Blacks in coming up with them at a distance of 20 miles or more from the scene of the murder. Two of the most active in the attack on Mr Lethbridge's were shot; and from the report of their women, several others were wounded...The remainder of the tribe had fled far into the Interior and for several days, previous to my coming up, no appearance of their return to the vicinity had been observed.'
>
> Captain Foley to Lieutenant De La Condamine, Newcastle 22 September 1826
>
> (*Historical Records of Australia,* Vol. XII, p.617).

The PCWP acknowledge that the above described distance of 20 miles or more from Alcorn's hut is well beyond the Mt Owen Project area and it is unlikely that the immediate area nor its surrounds constitute an Aboriginal massacre site that could be associated with this event. Whilst others (e.g. Gollan, 1987) have intimated that the reprisal shootings undertaken by Scott and his party of Mounted Police are associated with Mt Arthur to the west, the ready and accessible route into the mountains provided by Glennies Creek makes it equally probable that the deaths of the Aboriginals who attacked Alcorn's hut occurred somewhere in the mountainous terrain bordering Mt Royal. Notwithstanding this the PCWP consider the events at Alcorn's hut to form part of a wider armed resistance by their Wonnarua antecedents in the period 1825-1827, a focal point of which was the lands associated with Ravensworth and its neighbouring estates. To this extent, and as is explained a little more fully below, Mt Owen is perceived to lie in an area of extreme importance to contemporary members of the PCWP. In effect for the PCWP it is these lands that comprise the last great battleground of their fully traditional ancestors.

5.2.1d Contested colonial terrain

In September 1826 eleven men with landholdings in the Upper Hunter, including James Bowman of 'Ravensworth, William Ogilvie of 'Merton' and John Gaggin of 'Sydenham', wrote to Governor Darling highlighting their view of the 'very disturbed state of the Country by the incursions of numerous Tribes of Black Natives'; and seeking the continued protection of the Mounted Police:

> …or by suspending the order of their recall to Newcastle until the threats and murderous designs of the Natives shall have subsided; for, in the event of our losing the protection of the Troops, our property will be exposed to the revenge and depredation of these infuriated and savage people. The Natives lately burnt all the grass on several farms, killed some Men have speared several Cattle and threatened to destroy the Wheat at the ensuing harvest"
>
> Landowners to Governor Darling, Sydney 4 September, 1826.

(*Historical Records of Australia*, Vol. XII, p.576).

It is clear that these landholders perceived that they held contested terrain. Later that same month matters relating to this contested terrain were conveyed to the British Government by Governor Darling. In a letter written from Government House at Parramatta to the British Undersecretary for the Colonies, Robert Hay, Darling commenced by stating that:

> My dear Sir,
>
> I think it right to apprize you that the Natives have lately Committed some acts of outrage on Hunter's River, and that I have in consequence ordered a detachment of Troops to proceed and punish their aggressions. They have put two Stock keepers of Mr. Lethbridge's to death, and speared two others, and not long since murdered an overseer of Mr. Bowman's, and also speared one or two of his stockmen. The latter event appears to have been occasioned by the circumstance of one of their Tribe, who had been taken up for some offence, having been confined for a day or two on Mr. Bowman's Farm, which it is supposed had induced them to think that Mr. Bowman's People had been concerned in Apprehending their Comrade. Previously to Committing the outrage at Mr. Lethbridge's, they had been at Mr Ogilvie's who lives in that neighbourhood, but was absent from home at the time"
>
> Governor Darling to Under Secretary Hay, 11 September 1826

(*Historical Records of Australia*, Vol. XII, p.574)

It seems without question that a focal point of this contest was the land within and bordering the 'Ravensworth' Estate of James Bowman (Milliss, 1993, p55). In a report on the 'hostilities' by District Magistrates Robert Scott and Alex Macleod written on October 3 1826 to Colonial Secretary McLeay (cited in Historical Records of Australia. Vol XII, pp.610-612) several incidents relating specifically to Ravensworth and its surrounds were articulated, including:

a. "Several petty robberies on single individuals while travelling the long and lonely road from Dr. Bowman's upwards, such as stripping them of clothes and provisions" *(Historical Records of Australia*, Vol. XII, p610, para 4);
b. "Dr. Bowman's Stockman was attacked, and stript quite naked in the Bush; and a day or two later the same gentleman's watchman was murdered in his hut bout 3 o'clock of the day…" (*Historical Records of Australia*. Vol. X11, p611, para 9);

c. "Two of Dr. Bowman's Fencer's were attacked, while at work in the bush by a Body of Blacks; and altho' they escaped with their lives, they were severely wounded; (*Historical Records of Australia* Vol, X11, p. 611, para. 11); and
d. "The party of Mounted Police were reinforced and succeeded in taking one of the Natives, who murdered Dr. Bowman's Watchman, who was shot" (Historical Records of Australia, Vol. Xii, p611, para 12).

In reprisal for the events described at 'c' at least one 'Black' referred to as 'Cato' was killed and strung up on the Ravensworth Estate. In a sworn statement made at an enquiry to investigate this killing a witness described the incident in the following manner:

> "…All this took place, whilst the party were looking over the spot, where the fencers had been speared. The black seemed to be well aware of the spearing and the impression in the Deponent's mind was that he was a part concerned. This Black had been identified as one of the spearers at Dr. Bowman's.
> This Black was a very singularly formed man, and the soldiers had taken him from the description, that was given by the Fencers before he was brought to Dr. Bowman's to be identified.
> The body of this Black was hung up by the Men on the Farm as a terror to other Blacks."
>
> (Deposition of Mr John Larnach sworn before Magistrates Allman, Scott & Close at Glendon 13 September 1826)
>
> *Historical Records of Australia*, Vol X11 p.625-626)

Likewise, the incident cited at 'd' though only summarily mentioned by Magistrates Scott and MaCleod links Ravensworth to an historical event more infamously known to the PCWP as the murder of the Aboriginal "Jackey Jackey'' whilst he was in the custody of the Mounted Police. A more detailed description of the incident was provided by the Reverend Lancelot Threlkeld in an appeal for intervention that he penned to the Attorney General in July 1826. Threlkeld wrote as follows:

> "The Black who is supposed to have committed the murder was taken at or near Mr. Bowman's farm and brought down at night to the new jail at Wallis's Plains a distance of upwards of 40 miles. The next morning he was brought out, tied to two saplings and the Officer commanded the Soldiers to shoot him – One fired at him, the ball hit him on the back of the neck the black turned round his head and looked at him, the next fired, and the bullet cut along the jaw, and broke the bone; the black turned his head round again, another soldier stepped up and blew his head to pieces. – They then buried him by the privy belonging to Government House. The officer mounted his horse and went in pursuit of two other Blacks."
>
> Threlkeld to Bannister, July 25 1826 (cited in Milliss, 1993: 57).

On Friday May 18 1827 after Threlkeld's description of events was finally corroborated by the constable charged with delivering "Jackey Jackey to Wallis Plains from Ravensworth, Lieutenant Natahniel Lowe was charged in the Supreme Court with his wilful murder (Millis, 1993:66). As Milliss (1993:66) affirms this was a unique event being the first time in the then 40 year history of the colony that an officer and gentleman had ever been tried for having 'feloniously slain' an Aborigine[14]. Viewed in this light, the landscape about Ravensworth is a landscape of immense historical importance not only to the PCWP, but also to the State of NSW and Australia being a place of armed resistance and

[14] Lowe was acquitted of the murder by a jury of his peers (see; Milliss, 1993, pp67-68).

contestation in the early Australian colonial frontier that is well documented in the historic records; and which led to legal precedent at the time. For the PCWP it is an ennobled landscape mixed with the blood and sacrifice of their warrior antecedents. As Scott Franks has described it...

> "I liken it to how we as Australians now understand the Battle of Long Tan in the Vietnam War. It is not one place or piece of ground that is of absolute importance but there was fighting across a whole battlefield". The whole of that area was a battleground.

Scott Franks, August, 2013

In addition to this the PCWP see their current involvement in matters relating to Native Title, recent Land and Environment Court Proceedings (e.g. Lester vs. ACOL and Anors., 2011) and their more general and persistent involvement in Aboriginal cultural heritage survey and assessment such as being a continuation of the obligations to their cultural heritage - and an honouring of the legacy – placed upon those who with armed resistance sought to protect and maintain their culture and its special places, particularly in and around Glennies and Bowman's Creek, in the colonial period.

5.2.1e The property Sydenham

As already described, the property Sydenham (Figure 5.8) was where Matilda Hughes and James Smith resided at the time of their marriage. This property is situated approximately 5km northeast of the Village of Camberwell where it is accessed off Glennies Creek Road. It is situated about 2.75 km northeast of the Forest Road turnoff; and about 3 km southeast of the intersection of Forest road and the current southern perimeter of the Mt Owen Mine. A stone arrangement is said to have existed on this property, at which according to the oral tradition of the PCWP the birth of William Billy Smith, the great grandfather of Scott Franks occurred in 1858 (Franks, 2012a). William was the second child born to Matilda and James Smith. In the privately published book "*The Glennies Creek Story"*, life-time district resident and local historian, the late Lillian Noble, recorded that Mary Louise Gaggin, daughter of Captain John Braybn was known for her kindness to the local Aboriginal people. The Gaggin property was 'Sydenham' and it thus seems likely that the persistence of the PCWP in the area about Glennies Creek, especially subsequent to the colonial conflict of the mid 1820s, was in part the result of their positive relationships with the owners of Sydenham. This is supported by the closeness of family relationships between those parties who attended the marriage of James Smith and Matilda Hughes. It is further suggested by the fact that Mary Gaggin was acknowledged as being one of the only women ever permitted to see the rites and ceremonies of the local Aboriginal people (Noble, n.d.).

5.2.1f Anglican Church of Australia, St Andrews, Bridgman, Church Cemetery

This cemetery lies approximately 6.5km due east of the Mt Owen North Pit, on Bridgeman Road. The intersection of Bridgman Road and the Glennies Creek/Falbrook Road lies approximately 2 km to the northwest. Bridgman Road crosses Glennies Creek approximately 300m east of the cemetery. The death certificates of Matilda Smith (nee Hughes) and her eldest daughter Mary indicate that they both died of pneumonia within 5 days of each other in October 1913 (Figures 5.9 & 5.10). Matilda was 80 years old and Mary was 58. Both death certificates record that they were interred at the Bridgman Anglican Cemetery. None of the extant headstones at the cemetery confirm the exact location of the

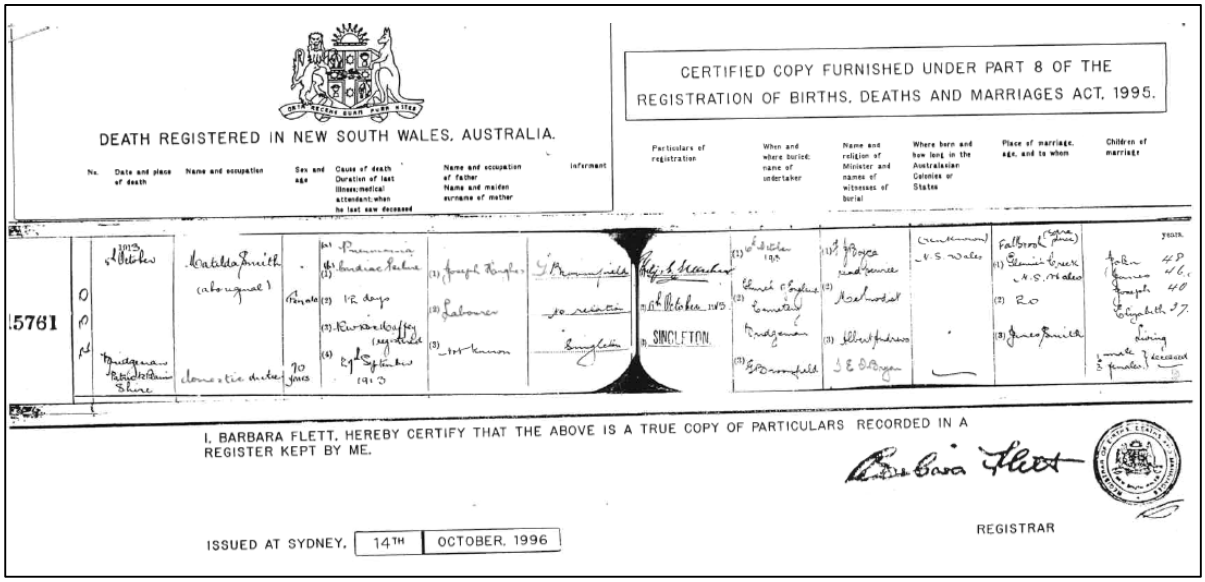


Figure 5.8. The property Sydenham. Top, extant buildings and dairy herd. Bottom Left. Trigonometric Station Marker adjacent to Glennies Creek Road on property Sydenham. Bottom Right. Image taken from roadside looking northeast towards 'Integra Mine' Maria Cotter, March 2013.

physical remains of these two significant antecedents of the PCWP. It is likely that they were buried in unmarked graves. However it is also possible that two headstone-like slabs of material identified during an inspection of the cemetery in May 2013, lying underneath a substantial tree adjacent to a fence might be that which was placed over the graves of Mary and her daughter (see Figure 5.11).

Little of the daily lives of Matilda Smith (nee Hughes) and her daughter Mary is found in the historical record. What is documented is a close and perhaps lifelong physical association/attachment with Glennies Creek and the nearby localities of Ravensworth, Camberwell, Sydenham, Falbrook, and

Bridgeman. In the period 1856 to 1874 Matilda and her husband James had seven children (Table 5.1). One daughter, Sarah, died when she was just 3 months old but the remaining six children survived into adulthood. The youngest son Joseph, though, was only about one year old when Matilda was widowed in 1875. It is unclear what if any were the changes in circumstances wrought on Matilda as a result of the loss of her non-Aboriginal husband. Nevertheless it does seem that there was little real dislocation to her home space with the geographical referent point of Glennies Creek being apparent throughout her life. It is from the particular experiences and attachments of three of Matilda's children, namely Mary, James and William -and their descendants - that the central expression of values held in the Project area and its surrounds by current members of the PCWP has emerged.


DEATH REGISTERED IN NEW SOUTH WALES, AUSTRALIA.

CERTIFIED COPY FURNISHED UNDER PART 8 OF THE REGISTRATION OF BIRTHS, DEATHS AND MARRIAGES ACT, 1995.

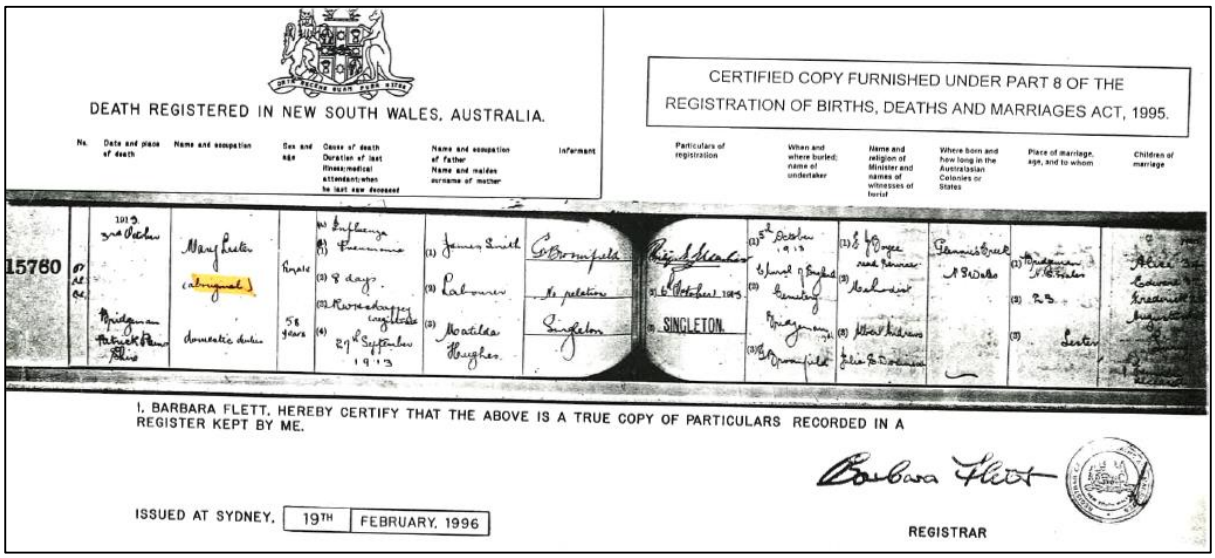
15761

I, BARBARA FLETT, HEREBY CERTIFY THAT THE ABOVE IS A TRUE COPY OF PARTICULARS RECORDED IN A REGISTER KEPT BY ME.

ISSUED AT SYDNEY, 14TH OCTOBER, 1996

REGISTRAR

Figure 5. 9. Death certificate of Matilda Smith (nee Hughes) dated 5th of October 1913.


DEATH REGISTERED IN NEW SOUTH WALES, AUSTRALIA.

CERTIFIED COPY FURNISHED UNDER PART 8 OF THE REGISTRATION OF BIRTHS, DEATHS AND MARRIAGES ACT, 1995.

15780

I, BARBARA FLETT, HEREBY CERTIFY THAT THE ABOVE IS A TRUE COPY OF PARTICULARS RECORDED IN A REGISTER KEPT BY ME.

ISSUED AT SYDNEY, 19TH FEBRUARY, 1996

REGISTRAR

Figure 5. 10. Death certificate of Mary Lester (nee Smith) eldest daughter of James Smith & Matilda Hughes dated 3rd October 1913. Mary was baptised in St Clements Church Camberwell in 1856 (see Figure 5.7).



Figure 5.11. Images of the grounds of St Andrews Church Bridgman. The church is no longer extant but the graves of pioneer settlers remain. Note at the base of the large tree in the centre of the photograph at the bottom left are headstone remnants (see bottom right) (photographs, Maria Cotter, March, 2013).

Table 5.1 The children of James Smith and Matilda Smith (nee Hughes)[15]

Name	Date of Birth	Where Born	Date and age at Death	Spouse	Children
Mary	January 1856	Sydenham	3rd Oct. 1913, 58 yrs	Lester, Edward	Alice Edward Frederick Augustus
William	30th June 1858	Sydenham	9th Oct.1908, 48 yrs	Mainwaring, Sarah	Mary Sarah
John	10 Oct. 1860	Falbrook	30th May 1922, 60 yrs	Kime, Selena	John Frances Joseph
Sarah	12 Oct. 1862	Bridgman	Jan. 15 1863, 3 months		
Elizabeth	2 Jan. 1865	Bridgman		Goadsby, George	Frances E Mary M
James	1871	Bridgman	1955, 84 yrs	Roy, Annie	May Herbert Caroline James Rene Douglas
Joseph	21st Sept.1874	Bridgman	20th, April, 1944 70 years	Roy, Rose	Maud James Walter Doris

[15] Source: Information collated from the personal documents of PCWP members Scott Franks, Maria Stocks and David Foot.

5.2.1f (a) Alice Henrietta Lester[16]

Alice Lester (Figure 5.12) was the eldest and only daughter of Mary Smith and Edward Valentine Lester[17]. It is apparent that Edward was born on the Richmond River and was the son of Augustus Adolphus Leycester a well-known early European settler and pioneer of the New South Wales North Coast. His mother is listed as Mary Garret on his death certificate, and she is a woman of probable Aboriginal origin given that in 1915 the *Singleton Argus* describes Edward as being a half-caste. This is a likely important historical association but as it relates to people and places well beyond Mt Owen it has not, been further explored or explained in this document.

Like her mother and grandmother there are few extant historical records pertaining to Henrietta but what can be gleaned from them, and the oral testimony of her descendants, is that she was witness to and/or experienced first-hand some of the significant challenges faced by many Aboriginal women in the latter part of the nineteenth and early twentieth century. For example, she would have been aware of the less than favourable circumstances of her mother Mary in the 1890s such that she applied to the newly formed 'Aboriginal Protection Board' for meat and rations in 1895 (Miller, 1985). Later too (c. 1916) as an unmarried mother she was herself subject to the forcible removal of her daughter Mabel from her care, at the hands of the Aborigines Protection Board. This period of her life must have been extremely difficult as her mother and grandmother had died in 1913 and her father in 1915. Further to this, in 1918, as the designated next of kin she was to receive the news that first her son Alister and then her brother Augustus had been killed in action in the battlefields of France (and see 5.2.1f (b) below). Yet despite these hardships, it appears that Alice did so without enduring the absolute dislocation of geography and home space that elsewhere characterised those who were forced to live on nearby Aboriginal Reserves and missions. It seems likely that this was a result of the many interconnections with the local landscape that were maintained by her extended family within the local area. To that end it is significant to read in her obituary that at the time of her death Alice Lester was regarded with affection and esteem by the local community and indeed considered to be a pioneer of the Singleton area (Figure 5.12).



Mrs. A. H. Lester

Held in the highest affection and esteem by all who knew her, Mrs. Alice Henrietta Lester, of Rix's Creek, passed away in her sleep at Dangar Cottage Hospital, on Saturday morning.

She was 70 years of age.

Predeceased by her husband, who died a year ago, the late Mrs. Lester enjoyed a reputation for unimpeachable honesty, and made it a firm rule to avoid being under an obligation to anyone.

A confirmed pipe smoker most of her life, the passing of the late Mrs. Lester closes yet another chapter in the pioneer history of Singleton.

After a service at All Saints' Church on Monday, the late Mrs. Lester was interred at the Church of England Cemetery, Whittingham.

H. J. Bartrop and Sons were in charge of arrangements.

Figure 5.12. Left, Image of Alice Henrietta Lester and her daughter Mabel Lester. Mabel was born in 1906 and here she is believed to be about 3 years old giving therefore an approximate date of capture for the image of c. 1909 (source: obtained with permission from the private collection of Maria Stocks). Right, a scanned copy of the obituary of Henrietta Lester that appeared in the *Singleton Argus*, Wednesday 15 August 1951, p.2 (Source National Library of Australia at http://nla.gov.au/nla.news-article827599835).

[16] Many of the details presented here are those obtained from the personal documents and records of the late Barbara Foot as provided to Tocomwall by Maria Stocks and David Foot.

[17] Note too that Registered PCWP Claimant Rob Lester is a direct descendant of Mary and Edward Lester.

5.2.1f (b) Augustus and Alister Lester[18]

There are at least 400 Aboriginal serviceman known to have fought for Australia in World War I (Londey, 2013). Estimates are that about one third of these soldiers lost their lives. Of this number 23 were from New South Wales (Table 5.2). Amongst this small number of men were Alister Lester (Figures 5.13 to 5.15) and his Uncle Augustus; the son and brother, respectively, of Alice Henrietta Lester. Both men lost their lives in 1918 in the battlefields of France. On Thursday 16 May 1918 the death of Alister Lester was communicated to the Hunter Valley community via the *The Maitland Daily Mercury*. The brief communication of his death read as follows:

> 'News has been received of the death in action of Private Alister Lester an aboriginal lad of Mount Olive. He enlisted when 17 years of age, and had been in the firing line for some months. This is the first death from the ranks of the aboriginals in this district who are serving with the AIF'.
>
> Excerpt from *The Maitland Daily Mercury*, Thursday 16 May, 1918, p.4

In September 1918 The *Singleton Argus* then reported on the fate of Augustus indicating that his death on 23 August occurred on the eve of the second anniversary of his departure from Australia to the war (Figure 5.16). In a united memorial service in the School of Arts Building at Bridgman on the 30th November 1918 the 'Mt Olive Patriotic Society' (*Singleton Argus*, Saturday December7, 1918, p.4) presented a medal to Alice Lester in honour of the memory of her son and brother who fell whilst in active service.[19]Likewise inscribed amongst the names of the 'honoured dead' in the central panel of a monument unveiled in Burdekin Park Singleton on 29 November 1925 are the names of Augustus and Alister Lester (*Singleton Argus*, Saturday 28 November 1925, p.7).

It is unclear why the Lester men enlisted but it is clear that Alister was especially keen having previously tried to enlist when he was only sixteen only to be rejected on this first attempt. It is significant too that Frederick, the older brother of Augustus also enlisted. However, Fred was medically discharged prior to his embarkation to the front. The official notation is that he was discharged as a consequence of having 'flat feet' but it is pertinent that attached to his discharge record is a signed Statutory Declaration in which Fred declared himself to be the father of five children, the eldest being only eight.

The involvement of Augustus and Alister Lester in the final campaigns of World War 1, and their consequent loss of life were matters recognised of significance to the local Mt Olive district community and to the broader Hunter Valley community in the immediate aftermath of the War. Today, when considered in light of the relatively small number of Aboriginal Serviceman that enlisted, and the even smaller number of Aboriginal serviceman that lost their lives, the sacrifice of the Lester Family [including the immediate and lasting impacts to Alice Henrietta in particular] take on an historic heritage value that is at the very least of State, if not National Significance.

In addition to these associative heritage values, for the PCWP the war service of Alister and Augustus Lester has an Aboriginal cultural importance that is embedded in the land and landscape from within which they were born. However others might conceptualise the notion of 'fighting for King and Country,' the PCWP perceive the sacrifice of Alister and Augustus to be a part of a dynamic continuum

[18] Except where acknowledged the information described here was obtained from the individual war service records of Alister, Augustus and Fed Lester as provided to Tocomwall by Maria Stocks and David Foot from the personal papers of the late Barbara Foot.

[19] This medal remains in the possession of Alice's great grandson David Foot.

of 'warrior' thought and action that is inexorably linked to the actions of those Wonnarua antecedents who offered armed resistance in the earliest days of colonial settlement of the Upper Hunter Valley.

Table 5.2. Aboriginal Serviceman enlisted from New South Wales who lost their lives in World War I*

NAME OF SERVICEMAN	BATTALION	Loss of Life by
BOWEN, Thomas	18th	Killed In Action
BRENELL, John	55th and 34th	Died of Illness
BRIGGS, Frederick		Killed In Action
BURNETT, Frederick	3rd Fld Amb.	Killed In Action
COE, John Henry Alfred - of Cowra	53rd	Killed In Action
CULLEN, S		Killed In Action
FIREBRACE, William Reginald Arthur.	24/8th B	Killed In Action
FIREBRACE, John Arthur	59th	Killed In Action
FIRTH, Ernest James	1st LHR	Killed In Action
GAGE, Christopher Henry - of Wellington	54th	Killed In Action
GAGE, Charles 'Chas' Henry	56th	Killed In Action
HEATH, Edward - of Moree	33rd	Killed In Action
HUCKLE, John - of Condobolin	1st	Killed In Action
JENKINS, A.		Killed In Action
LESTER, Alister - of Singleton (	4th	Killed In Action
LESTER, Augustus - uncle of above	34th	Killed In Action
McGINNES, Richard		Killed In Action
MUNRO, Robert	49th	Died Of Wounds
NAPOLEON, William Joseph.		Died Of Wounds
PRIESTLY, Val	33rd	Killed In Action
RHODES, William		Died Of Wounds
SLATER, James Alexander	20th	Killed In Action
WALKER, Thomas James	35th	Killed In Action

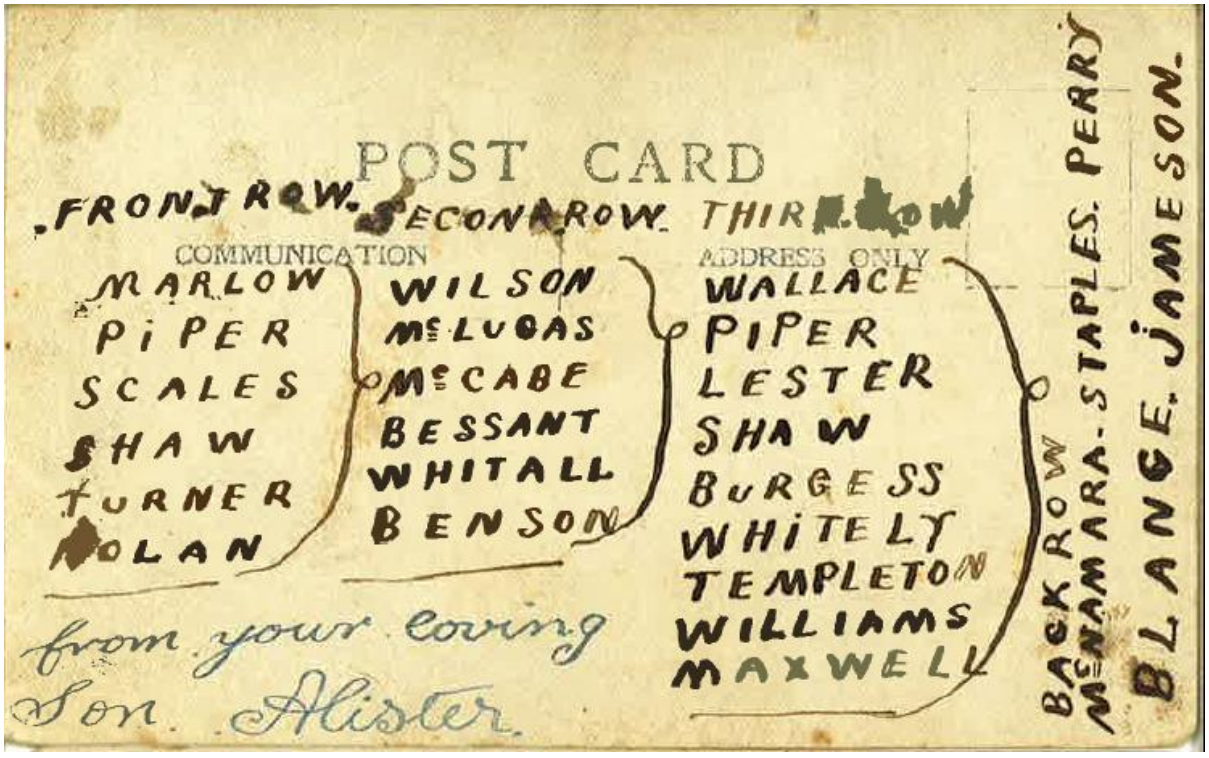
*(Source http://www.aiatsis.gov.au/collections/exhibitions/iaaw/why.html).



Figures 5.13 Two Postcard images of Alister Lester in his full AIF uniform. Alister sent these Postcards to his mother Henrietta at Mt Olive via Singleton (Source: from the private collection of Maria Stocks and David Foot, used with permission).



Figures 5.14 Postcard image of Alister Lester in his full AIF uniform with other troops. Alister is standing third from left in the third row (Source: from the private collection of Maria Stocks and David Foot, used with permission).



Figures 5.15 The obverse side of Figure 5.14 detailing the surnames of all men featured in the photograph, and signed 'from your loving son Alister '(Source: from the private collection of Maria Stocks and David Foot, used with permission).



WAR CASUALTIES

Miss Lester, of Mount Olive, has received an urgent telegram from Victoria Barracks, stating that her brother, Private Augustus Lester, was killed in action in France on August 23rd. He was 23 years of age, and left Australia on August 24, 1916. Private Lester had been previously wounded three times in France.

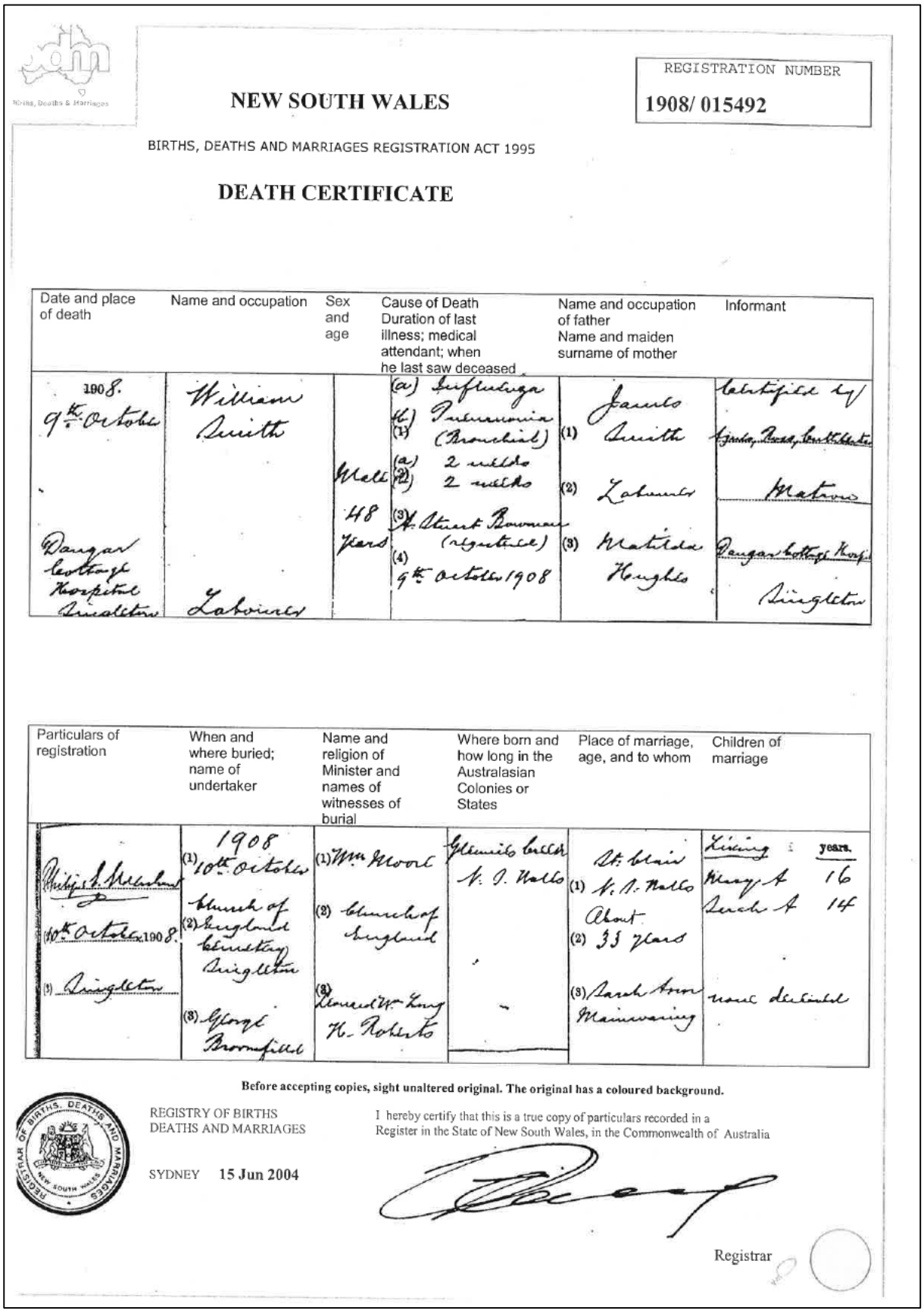
Figure 5.16 Excerpt from the *Singleton Argus*, Tuesday 10 September 1918, p.2 reporting on the death of Augustus Lester (Source: National Library of Australia at http://nla.gov.au/nla.news-article80715739.

5.2.1g William 'Billy' Smith

William 'Billy' Smith the eldest son of Matilda Hughes and James Smith was born at Sydenham in June 1858 (see Table 5.1). In 1890 he married Sarah Manwaring (also spelt Manwarren and Mainwaring on various documents) who was born in Newcastle in 1869 to parents David and Sarah Manwaring. Her parents were both of English heritage. Her father David had arrived in Australia as an eight year old boy in February 1840 aboard the 'James Pattison'. He had travelled with his parents and siblings to Australia as a free, but assisted immigrant paid for by the crown. In 1908 'Billy' Smith died of pneumonia at the relatively young age of 48 leaving his wife Sarah to care for their then two teenage daughters Mary (aged 16) and Sarah (aged 14) (Figure 5.17).

Whilst much of his early life is not especially well known, in the oral tradition of the PCWP, 'Billy' was known to be a lore man, a traditional cultural knowledge holder and a good hunter and shot (see Section 5.3.1). He also appears to have been a reliable, hard-working, innovative and perhaps ambitious man such that in what appears to be a relatively unprecedented event in the Upper Hunter, he secured the Conditional Lease and/or Conditional Purchase of a number of blocks of land - some with part creek frontage - to the east of Falbrook (i.e. Glennies Creek) and north of 'Mt Olive' (Figure 5.18). These blocks are currently situated about 11km due east of the main north pit of the Mt Owen Mine Complex. With free access to this land; and with a general ready access to broader landholdings across the valleys of Bowmans, Goorangoola and Glennies Creeks (as a skilled and reliable employee of various station holders) 'Billy' was able to retain, refresh and transfer his traditional cultural knowledge with little, if any, impediment from his non-Aboriginal neighbours. In part this also appears to have been the case for the majority of Billy's siblings since they were active employees on stations as labourers or domestics throughout the immediate district; and largely avoided being forced to locate to the nearby 'Blacks Camp' or 'St Clair Mission.'

Importantly the majority of the lots purchased or leased by William 'Billy' Smith near Mt Olive were retained, transferred or purchased within his immediate family, and made accessible to his extended family, for almost 100 years (Figures, 5.19 & 5.20). Claude Franks the grandson of William 'Billy' (and dad of Charlie, Malcolm Scott, Ann, Mary and Thomas) retained these landholdings until the mid-1990s when he suffered a stroke and required nursing home care. At this time the land was sold out of the Franks-Smith Family, although in more recent years Charlie Franks has again acquired land at Mt Olive adjoining Glennies Creek.



NEW SOUTH WALES

REGISTRATION NUMBER
1908/ 015492

BIRTHS, DEATHS AND MARRIAGES REGISTRATION ACT 1995

DEATH CERTIFICATE

Date and place of death	Name and occupation	Sex and age	Cause of Death Duration of last illness; medical attendant; when he last saw deceased	Name and occupation of father Name and maiden surname of mother	Informant
1908. 9th October Dangar Cottage Hospital Singleton	William Smith Labourer	Male 48 Years	(a) Influenza (b) Pneumonia (1) (Bronchial) (a) 2 weeks (2) 2 weeks (3) H. Stuart Bowman (Signature) (4) 9th October 1908	(1) James Smith (2) Labourer (3) Matilda Hughes	Certified by Matron Dangar Cottage Hospital Singleton

Particulars of registration	When and where buried; name of undertaker	Name and religion of Minister and names of witnesses of burial	Where born and how long in the Australasian Colonies or States	Place of marriage, age, and to whom	Children of marriage
(1) Philip J. Meldrum 10th October 1908. (3) Singleton	1908 (1) 10th October (2) Church of England Cemetery Singleton (3) George Broomfield	(1) Wm Moore (2) Church of England (3) Edward Wm Long H. Roberts	Glenmore Creek N. S. Wales	St. Clair (1) N. S. Wales About (2) 33 years (3) Sarah Ann Mainwaring	Living / years. Mary A 16 Sarah A 14 none deceased

Before accepting copies, sight unaltered original. The original has a coloured background.

REGISTRY OF BIRTHS DEATHS AND MARRIAGES

SYDNEY 15 Jun 2004

I hereby certify that this is a true copy of particulars recorded in a Register in the State of New South Wales, in the Commonwealth of Australia

Registrar

Figure 5.17 Scanned Copy of Death Certificate of William 'Billy' Smith.

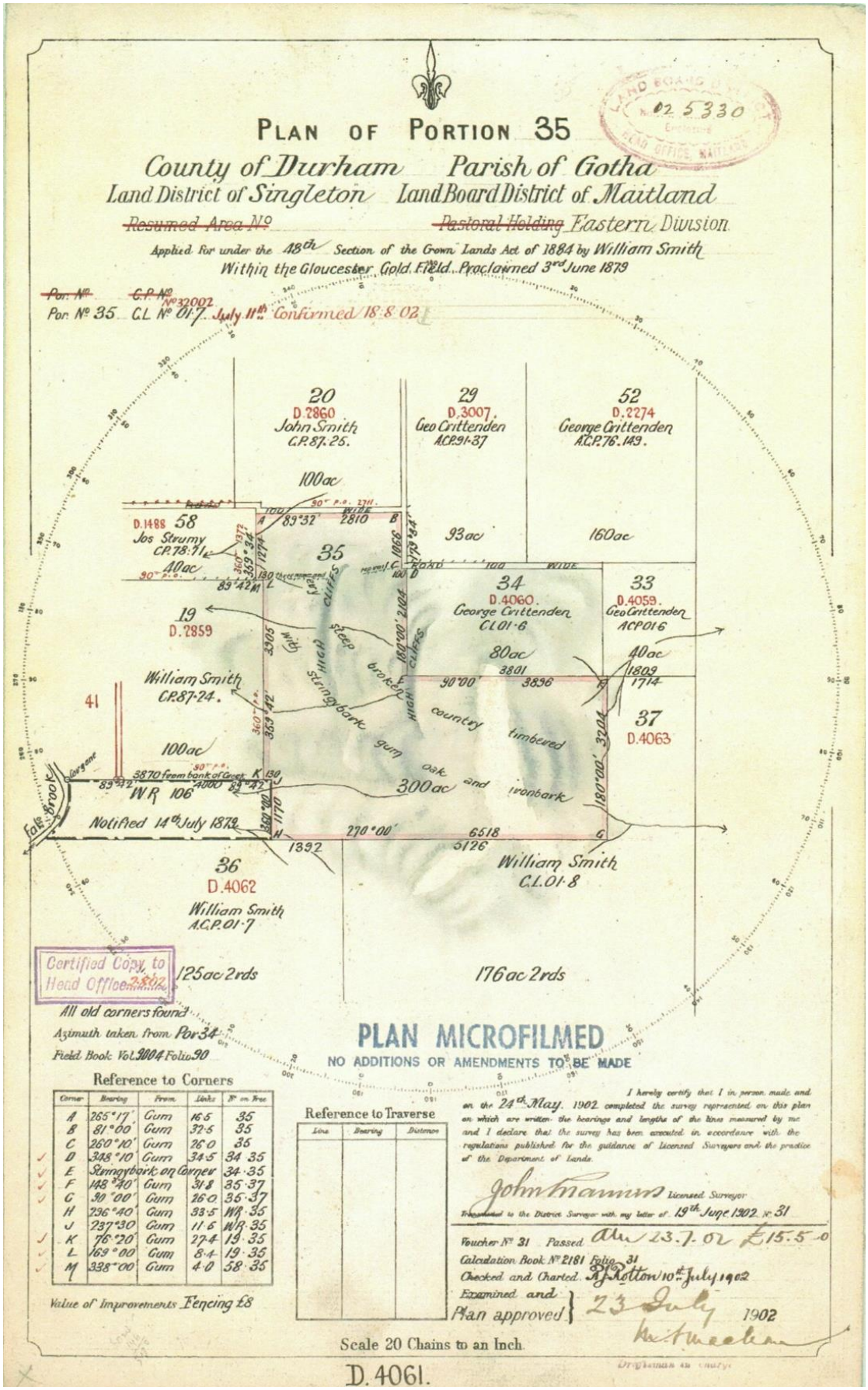


Figure 5.18 A scanned copy of a confirmation plan of the Conditional lease of Portion 35 in the Parish of Gotha, County of Durham by William Smith, dated 1902. Note the other surrounding portions of land held either as conditional purchase or lease by William Smith. The total acreage under his control at this time was approximately 700 acres. (Source: hard copy plan obtained direct from Armidale Office of NSW Department of Lands, Faulkner Street Armidale NSW 2350, April 2013).

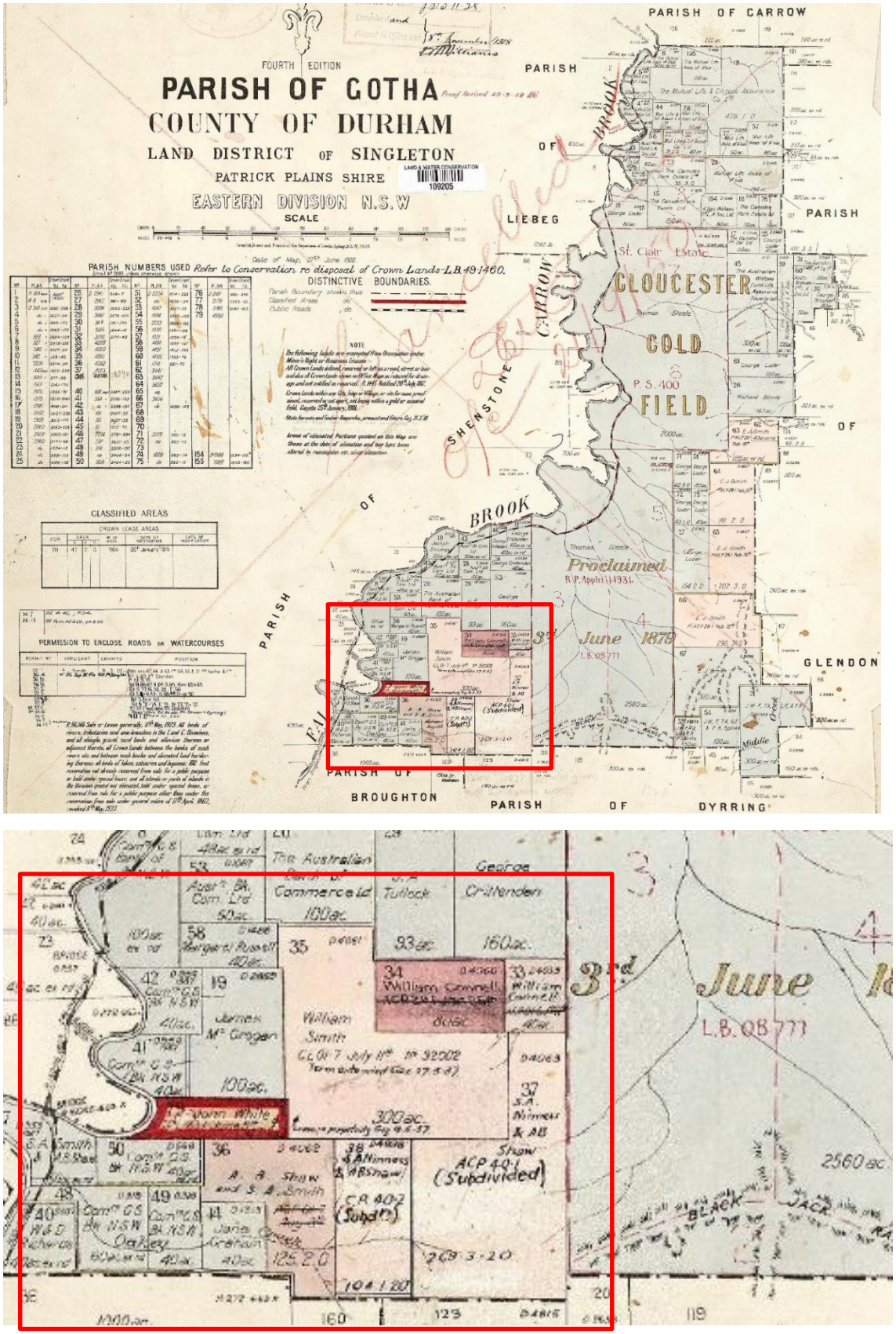


Figure 5.19 Top, Map of the Parish of Gotha, County of Durham, 4th Edition, 1928. Note that at this time the Conditional Lease of Lot 35 is still held in the name of William Smith some 20 years subsequent to his death. Likewise other of the portions previously held by him (i.e. Lots 7, 36, 37 and 38) are held solely or in part by S.A. Ninness and/or S.A Smith. In effect the blocks remain in the control of William's immediate family since S.A. Smith is his widow (or his daughter); and from 1912 some four years after his wife Sarah remarried and her newly acquired surname was Ninness (Source: http://lpi.nsw.gov.au [historical map viewer interface, 2013]).

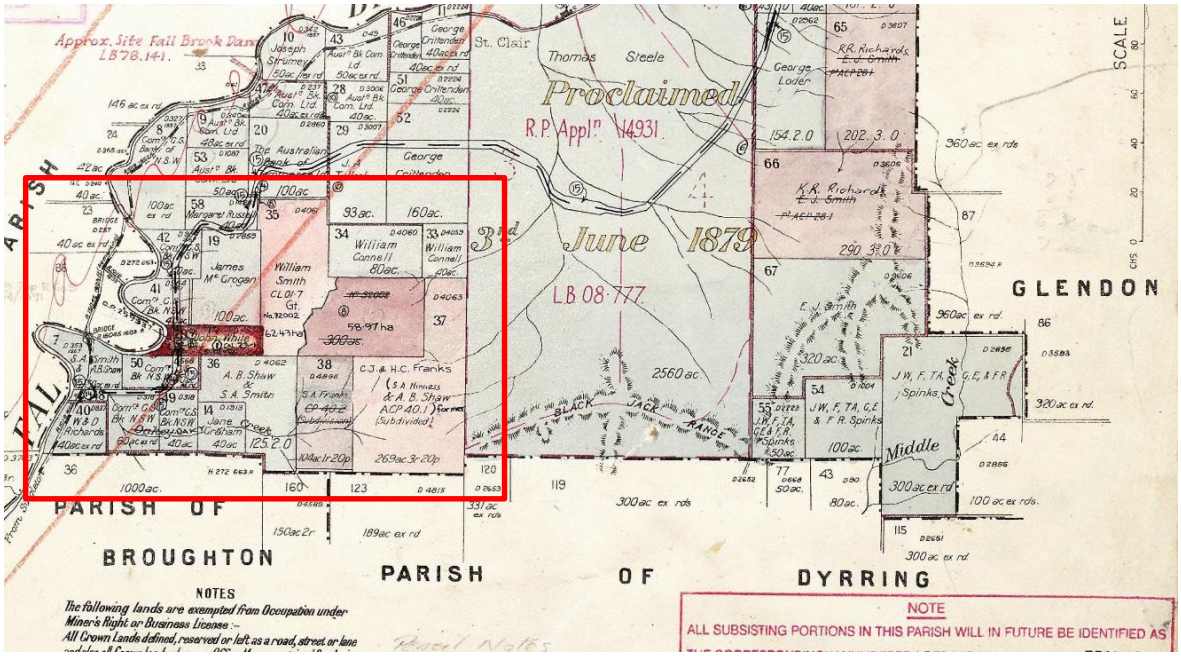


Figure 5.20 An excerpt from the Map of the Parish of Gotha, County of Durham 5th Edition 1950. Despite further name changes the land portions claimed by conditional purchase or leasehold by William Smith prior to 1902 remain in the possession of his immediate family at this time. Lot 38 is held in the name of S.A. Franks this being the married name of William's younger daughter Sarah. Lot 37 is held jointly by C.J and H.C. Franks which is presumed to be Claude James Franks and Henry Charles Franks, Sarah's son and husband respectively (Source: http://lpi.nsw.gov.au [historical map viewer interface, 2013]).

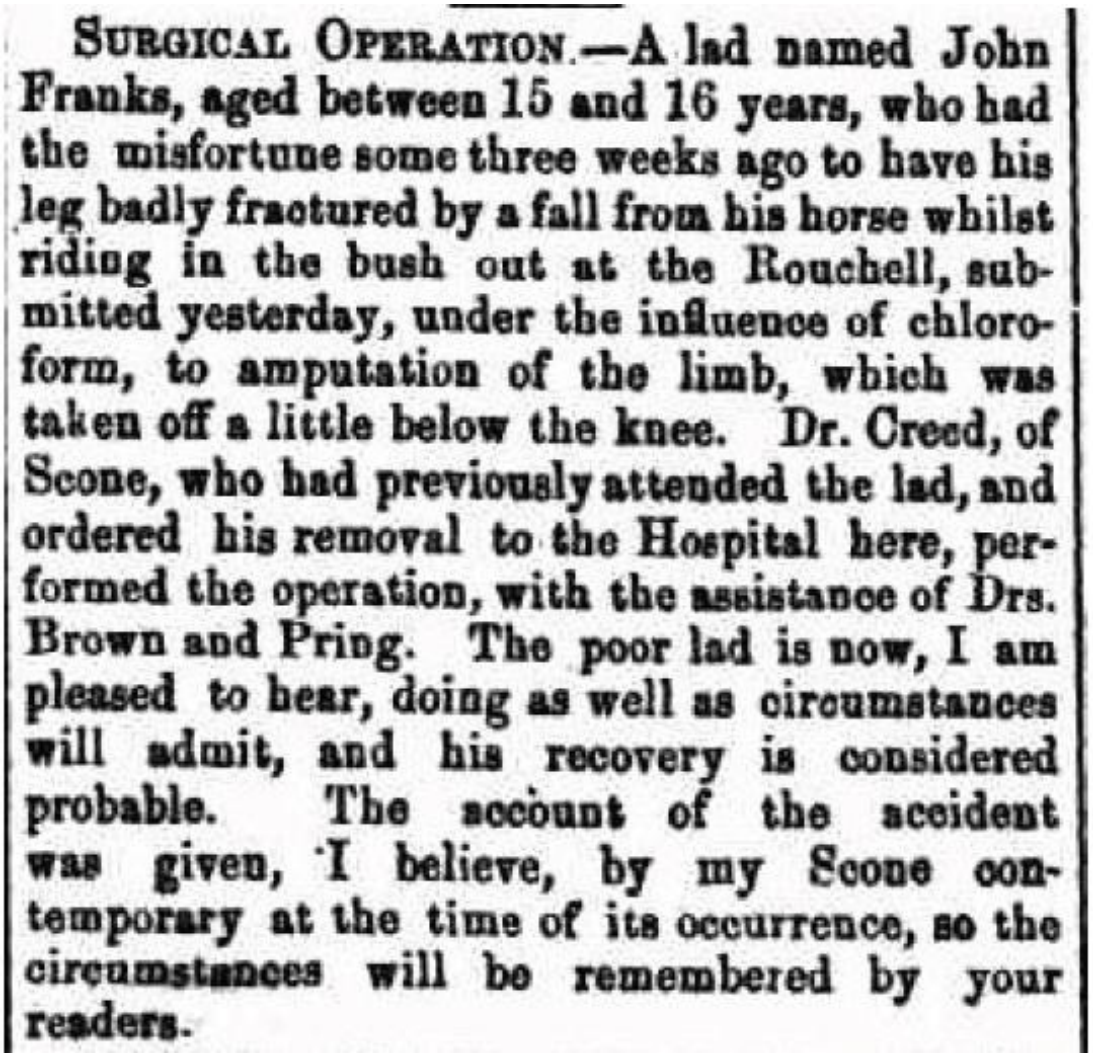
5.2.1h John Caleb Franks, 1869-1925.

It is unknown when John Caleb Franks left his home in the Windsor district and moved to the Upper Hunter but at least one contemporary newspaper report indicates that he came to the Hunter whilst still a boy. In January 1869 the *Maitland Mercury* reported on the amputation of one of his legs by a Dr Creed of Scone as a result of an injury he sustained when riding in the bush 'out at the Rouchell' some three weeks earlier (Figure 5.21). Whilst this report suggested that then teenage John's recovery was only 'probable', his 1925 obituary in the *Singleton Argus* indicates that he in fact lived a relatively long and full life; and that much of his 74 years was spent about the localities of 'Ravensworth' and 'Antiene'(Figure 5.22). In the years between 1869 and 1925 aspects of John Caleb Franks' life and his association with the Ravensworth area were sporadically documented within the pages of the *Singleton Argus*. Using this material and other documents such as historical Parish Maps of the district it has proved possible to substantiate his and his immediate family's close and personal historical association with the lands currently within and adjoining the Mt Owen Mine Complex. Some of the key evidence, and the nature of the historical associations it establishes between the Franks family and the area about Mt Owen, are more fully outlined below. The information is not shown in strict chronological order but rather it is organised in terms of its ability to substantiate key associations.

It is acknowledged that John Caleb Franks was not of Aboriginal descent. He was in fact a 'native born' first generation Australian, the legitimate son of two emancipated convicts. Yet his life and its context provides further nuance to the historical importance of the land and landscape in which he lived all of his adult life. At its most base description his personal narrative within the Hunter is of a steady rise from a one-legged, crippled teenage son of a convict, to respected 'grazier'. His narrative resonates with the post-convict era historic themes of developing local, regional and national economies and

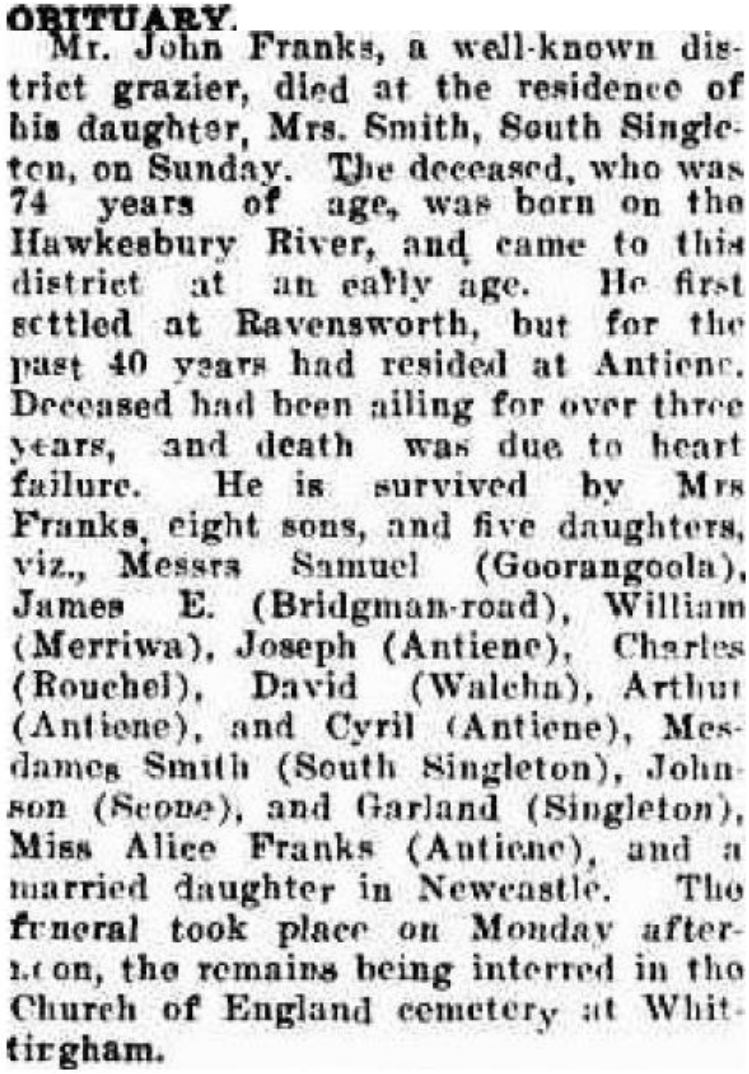
reflects the effects of the Robertson Land Act of 1861 which enabled smaller 'non-aristocrats' to purchase portions of the original 1820s land grants within the valley.

Most importantly, through the marriage of two of his sons (Charles and William) to the only two daughters of William 'Billy' Smith (Sarah and Mary) John Caleb Franks' narrative has interweaved with the narrative of the PCWP. Consequently current members of the PCWP make legitimate claim to be the Aboriginal descendants of John Caleb Franks. Their claims places additional emphasis on the complex interplay of inter-racial marriage in the changing demographic history of the Hunter Valley (*cf* Blyton & Ramsland, 2012) particularly as it is, in part, through such marriage that the PCWP have been able to maintain their physical connection to that landscape that was (and is) central to their existence from the time before first sovereignty. In so doing they have been able to maintain their Wonnarua cultural identity, retain and renew their cultural knowledge and practice; and negotiate individual dual identities as modern Australians.



SURGICAL OPERATION.—A lad named John Franks, aged between 15 and 16 years, who had the misfortune some three weeks ago to have his leg badly fractured by a fall from his horse whilst riding in the bush out at the Rouchell, submitted yesterday, under the influence of chloroform, to amputation of the limb, which was taken off a little below the knee. Dr. Creed, of Scone, who had previously attended the lad, and ordered his removal to the Hospital here, performed the operation, with the assistance of Drs. Brown and Pring. The poor lad is now, I am pleased to hear, doing as well as circumstances will admit, and his recovery is considered probable. The account of the accident was given, I believe, by my Scone contemporary at the time of its occurrence, so the circumstances will be remembered by your readers.

Figure 5.21. Extract from the *Maitland Mercury and Hunter Rive General Advertiser*, Saturday January 9, 1869 highlighting how, with the use of chloroform, surgeons amputated one of the legs of young John Franks below the knee (Source: National Library of Australia at http://nla.gov.au/nla.news-article18734184).



OBITUARY.

Mr. John Franks, a well-known district grazier, died at the residence of his daughter, Mrs. Smith, South Singleton, on Sunday. The deceased, who was 74 years of age, was born on the Hawkesbury River, and came to this district at an early age. He first settled at Ravensworth, but for the past 40 years had resided at Antiene. Deceased had been ailing for over three years, and death was due to heart failure. He is survived by Mrs Franks, eight sons, and five daughters, viz., Messrs Samuel (Goorangoola), James E. (Bridgman-road), William (Merriwa), Joseph (Antiene), Charles (Rouchel), David (Walcha), Arthur (Antiene), and Cyril (Antiene), Mesdames Smith (South Singleton), Johnson (Scone), and Garland (Singleton), Miss Alice Franks (Antiene), and a married daughter in Newcastle. The funeral took place on Monday afternoon, the remains being interred in the Church of England cemetery at Whittingham.

Figure 5.22. Obituary of John Caleb Franks extracted from the *Singleton Argus,* Thursday 17 December 1925, p2. Note that John was survived by his wife Mercy and his 13 children, all of which, with the exception of David, were reported to reside in the Hunter region. His sons William and Charles married Sarah and Mary Smith the only two daughters of William 'Billy' Smith (see Section 5.2.1g below) (Source: National Library of Australia at http://nla.gov.au/nla.news-article81053793).

5.2.1h (a) John Caleb Franks and land purchases within the vicinity of 'Ravensworth'

From the 1890s John Caleb Frank's acquired by lease and/or conditional purchase properties within close proximity to land first granted to James Bowman as part of his Ravensworth Estate. These properties included Lots 47, 157 and 158 in the Parish of Herschell (see Figures, 5.23 to 5.27) and Lot 131 in the Parish of Liddell (see Figures 5.28 & 5.29). Lot 47 in the Parish of Herschell is the property most distant from Mt Owen being situated approximately 9 km north-north west of the current Hebden road turnoff to the main Mt Owen office complex. Lot 47, Parish of Herschell straddles Cedar Creek, about 2.5km upstream from its junction with Bowman's Creek.

Lot 131 Parish of Liddell is that Lot in closest proximity to the original Ravensworth Estate being immediately to its west (Figure 5.28). This property was purchased by John Franks, at least sometime prior to the issue of the 3rd edition of the Liddell parish Map in 1912 - perhaps as early as 1896 (see Figure 5.24) - and it was held by his estate until 1949 (see Figures, 5.21 & 5.22) when it was listed for sale by Auction in the *Singleton Argus*. Of interest here is the fact that Tocomwall and the PCWP

consider that Lot 131 Parish of Liddell now forms part of the 'Hillcrest' property which is owned by Glencore and recently proposed as an offset area for their Ravensworth North Project (Xstrata Ravensworth North, 2012).



Crown Lands Office.

THURSDAY, 18TH DECEMBER.

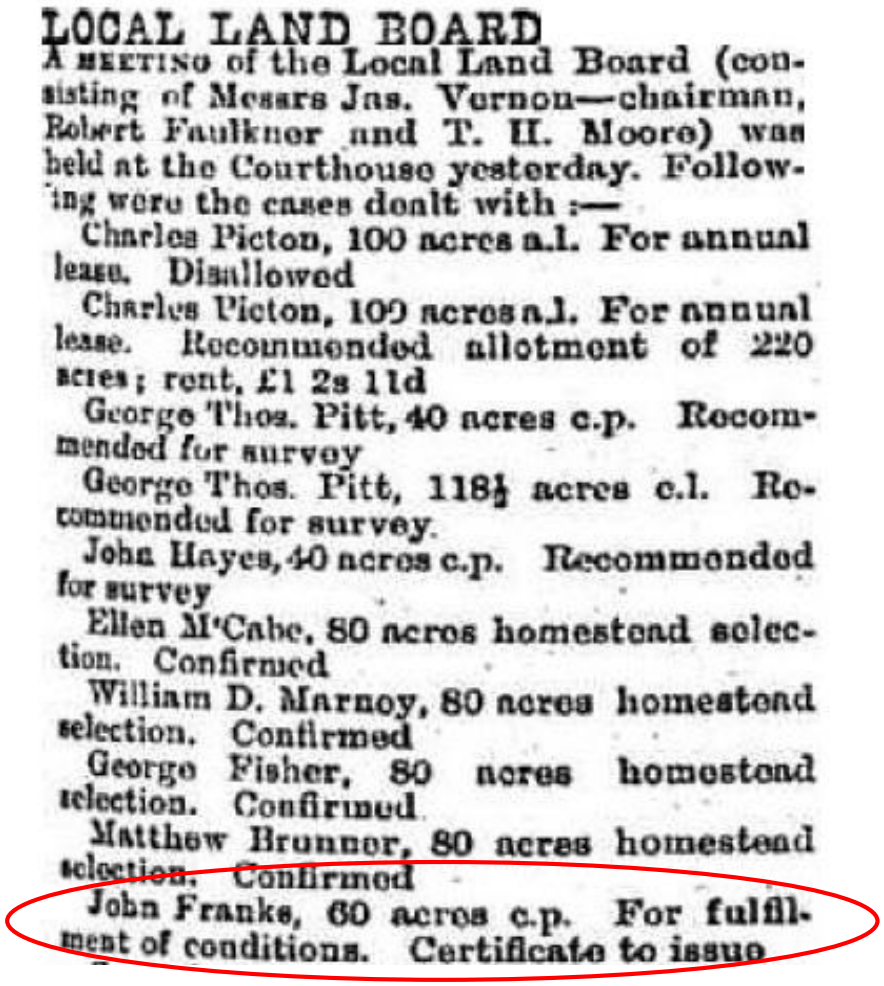
CONDITIONAL PURCHASE.

JOHN FRANKS, 60 acres, county Durham, parish Herschell, being measured portion No. 158.

CONDITIONAL LEASE.

John Franks, 118 acres, county Durham, parish Herschell, being measured portion No. 157, and adjoining his c.d. of that date, and being measured portion No. 158.

Figure 5.23. Singleton Argus, Saturday December 20, 1890 (Source: National Library of Australia at http://nla.gov.au/nla.news-article79803897).



LOCAL LAND BOARD

A MEETING of the Local Land Board (consisting of Messrs Jas. Vernon—chairman, Robert Faulkner and T. H. Moore) was held at the Courthouse yesterday. Following were the cases dealt with :—

Charles Picton, 100 acres a.l. For annual lease. Disallowed

Charles Picton, 109 acres a.l. For annual lease. Recommended allotment of 220 acres; rent, £1 2s 11d

George Thos. Pitt, 40 acres c.p. Recommended for survey

George Thos. Pitt, 118½ acres c.l. Recommended for survey.

John Hayes, 40 acres c.p. Recommended for survey

Ellen M'Cabe, 80 acres homestead selection. Confirmed

William D. Marnoy, 80 acres homestead selection. Confirmed

George Fisher, 80 acres homestead selection. Confirmed

Matthew Brunner, 80 acres homestead selection. Confirmed

John Franks, 60 acres c.p. For fulfilment of conditions. Certificate to issue

Figure 5.24. Extract from the *Singleton Argus*, Saturday 13 June 1896, indicating that John Franks had met all the conditions of his conditional purchase of 60 acres of land (presumed to be either Lot 158, Parish of Herschell; see Figures 5.25 and 5.27 or perhaps Lot 131, Parish of Liddell see Figures 5.28 and 5.29) and therefore his purchase was to be certified.

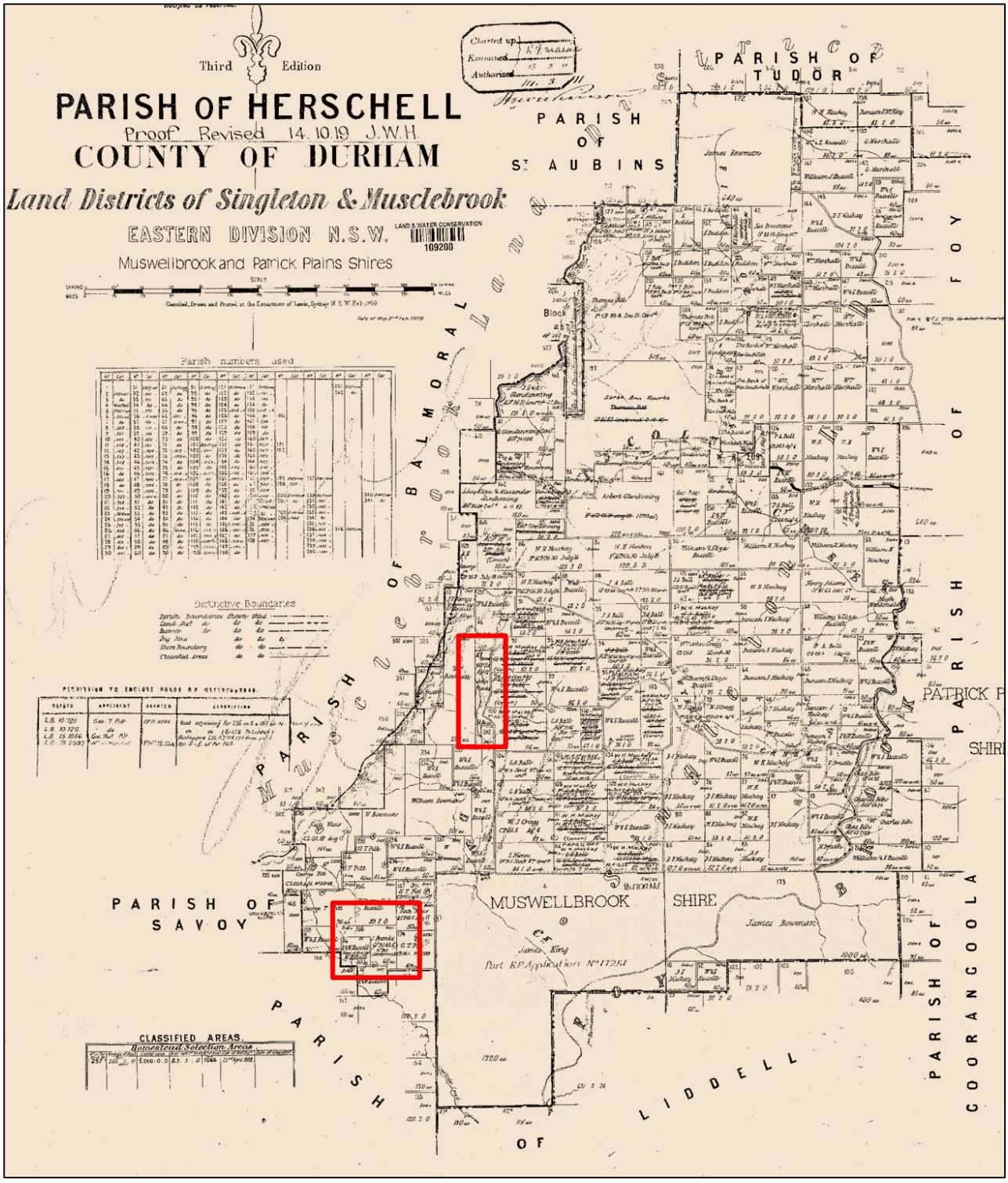


Figure 5.25 Annotated copy of the 3rd edition Map of the Parish of Herschell, County of Durham, issued by Department of Lands Sydney, in 1909. Two lots (Lots 47 & 158) subject to conditional purchase by John Caleb Franks occur within the areas bounded by the two red rectangles that overly this map (and see Figures 5.26 & 5.27) (Source: http://lpi.nsw.gov.au [historical map viewer interface, 2013]).

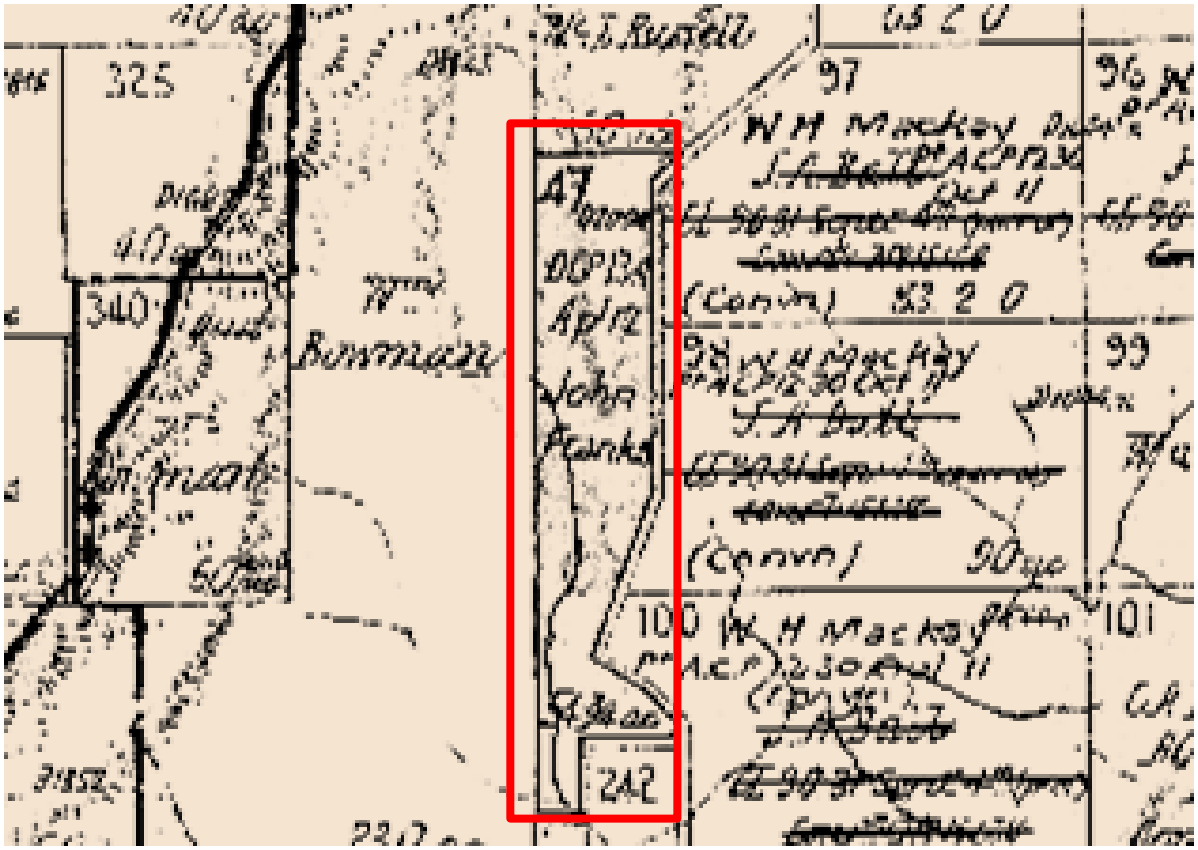


Figure 5.26 Enlarged extract of a portion of the1909 Map of the Parish of Herschell, Country of Durham (i.e. Figure 5.25). This extract indicates that John Franks is recorded as the individual to first seek conditional purchase of Lot 47 from the Crown (Source: http://lpi.nsw.gov.au [historical map viewer interface, 2013]).

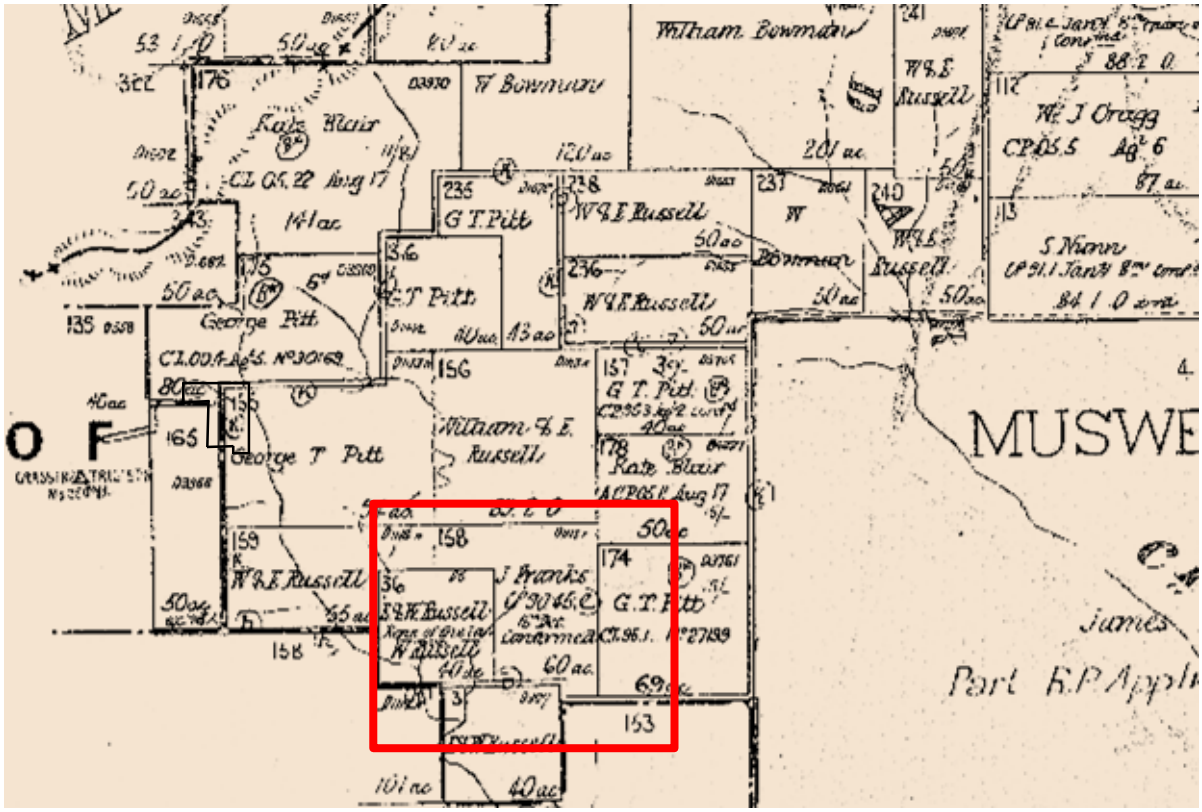


Figure 5.27 Enlarged extract of a further portion of the1909 Map of the Parish of Herschell (i.e. Figure 5.25). This extract records John Franks as being granted conditional Purchase of Lot 158 in this Parish (Source: http://lpi.nsw.gov.au [historical map viewer interface, 2013]).

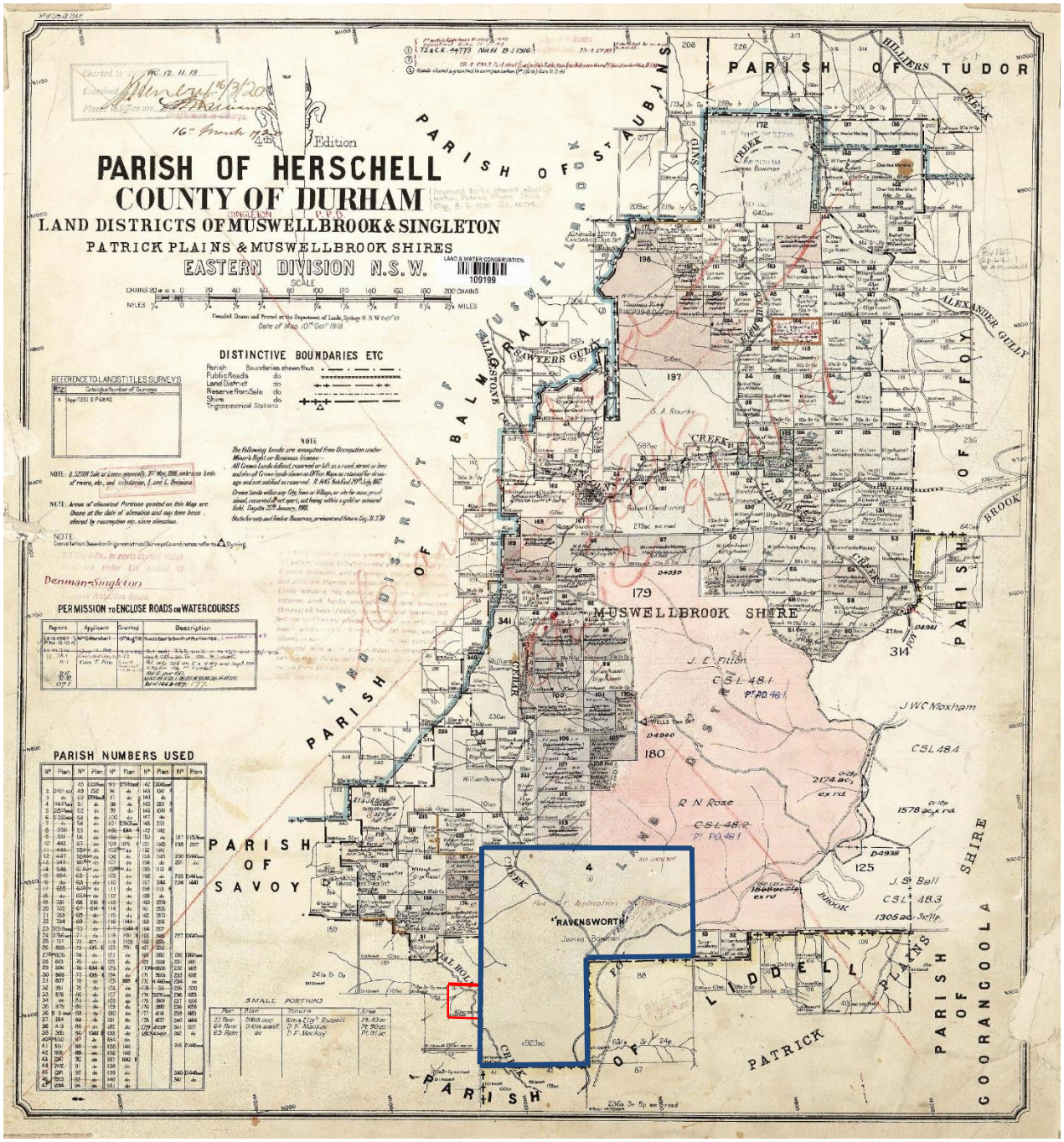


Figure 5.28 Annotated copy of an historical map of the Parish of Herschell, County of Durham (4th Edition, 1919). In this map the proximity of part of the early 'Ravensworth' holdings of James Bowman (i.e. bounded by blue lines) to acreage held by John Franks (i.e. Lot 131 Parish of Liddell, shown in red) is highlighted. As the Parish of Liddell is only cursorily shown in this map further clarification is provided in Figure 5.29 (source: http://lpi.nsw.gov.au [historical map viewer interface, 2013]).

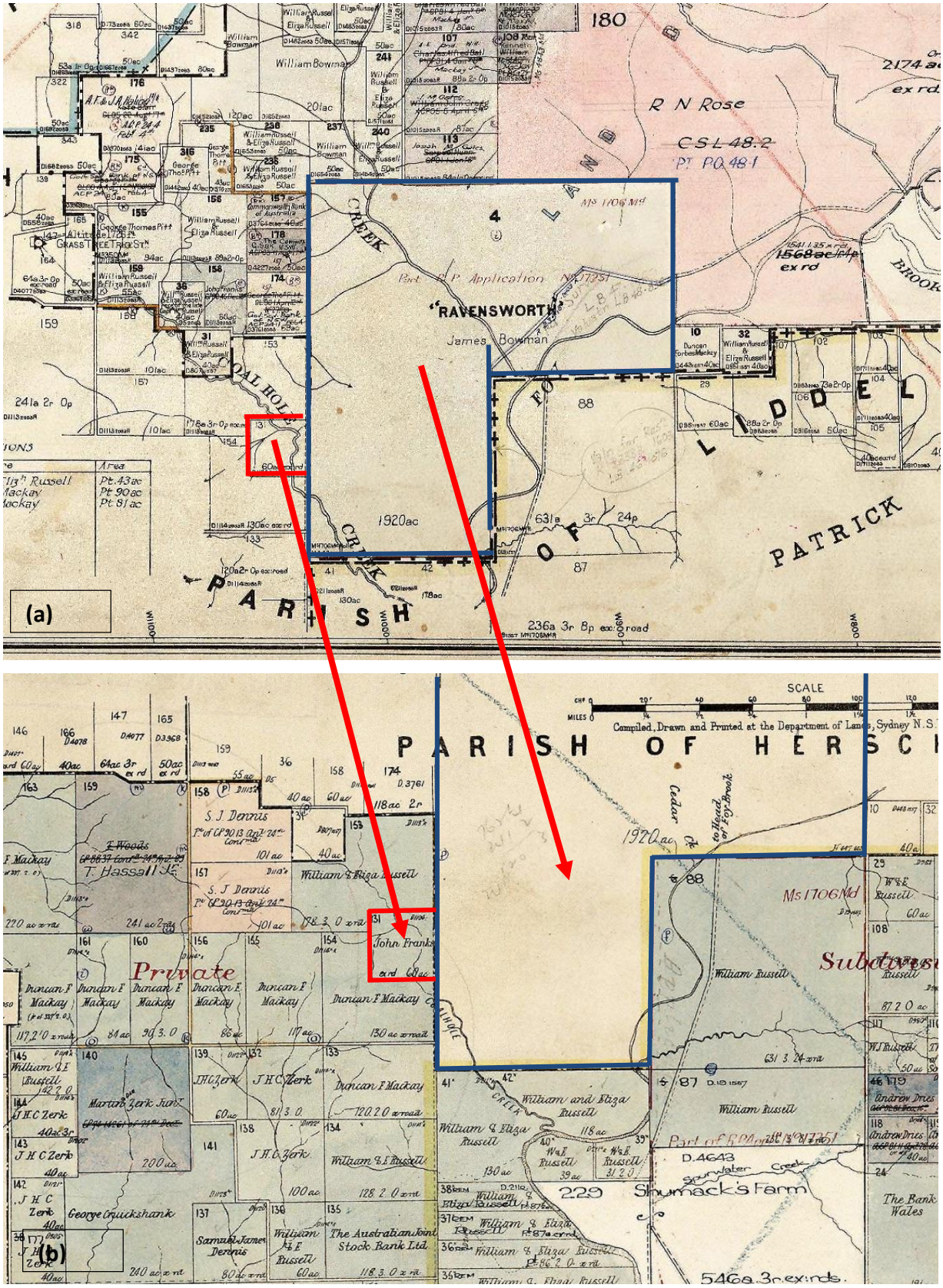


Figure 5.29 Composite of enlarged extracts of (a) historical map of the Parish of Herschell, Country of Durham, issued 1919 and (b) historical map of the Parish of Liddell, County of Durham, issued 1912. Lot 131 Parish of Liddell was clearly subject to conditional purchase by John Franks prior to 1912(source: http://lpi.nsw.gov.au [historical map viewer interface, 2013]).



GRAZING PROPERTY AT HEBDEN

TO LEASE BY AUCTION
TERM TWO YEARS.

TUESDAY, 24th JANUARY,
AT 2 P.M.

W. **BAILEY & SONS** have received instructions from the Executors of the Estate of John Franks, deceased, to sell by auction at the FARMERS' UNION, as above,

The LEASE of ALL THAT PROPERTY, containing 60 Acres, fenced and permanently watered, being Portion 131, Parish Liddell. Immediate possession.

TERMS AND CONDITIONS AT SALE.

Figure 5.30. Advertisement for lease of 'Grazing property' held in the estate of James Franks, *Singleton Argus* Monday 16 January 1939, p.3. Note that the lease is for Lot 131 in the Parish of Liddell which is that land portion shown to adjoin Ravensworth in Figures 5.28 & 5.29 (Source: National Library of Australia at http://nla.gov.au/nla.news-article81944016).



H. G. BAILEY & R. L. BAILEY,
Licensed Auctioneers.

Two Properties at Hebden Near Ravensworth

FOR SALE BY AUCTION

Saturday, 12th March

AT 11 A.M.

W. BAILEY & SONS, Auctioneers, have received instructions from the Trustees of the late John Franks, to sell by auction at their SALE ROOMS, CAMPBELL STREET, as above:

LOT 1. All that property containing 60 acres, Parish of Liddell, fenced and watered by Coal Hole Creek, now in the occupation of Mr H. K. Bower.

LOT 2. Property containing 60 acres, Parish Herschell, known as Rock Valley, fenced and watered by Dam and Springs, now in the occupation of Mr. J. Tanner.

The Trustees are anxious to wind up estate matters, consequently these properties have been placed on the market for sale.

TERMS AND CONDITIONS AT SALE

WM. J. CRAGG & WHITFIELD,
Solicitors for Estate

Figure 5.31. Advertisement for sale of two properties held in the estate of James Franks, *Singleton Argus* Friday 25 February 1949, p.8. Note that this sale occurs subsequent to the death of John Caleb Franks' wife Mercy, in 1948 (Source: National Library of Australia at http://nla.gov.au/nla.news-article82575574).

5.2.1h (b) John Caleb Franks, Mercy Franks and 'Billy Button', 1884.

John Caleb Franks married Mercy Manwaring, the older sister of Sarah Manwaring (i.e. Billy Smith's wife, see 5.2.1g above), in 1881. Her obituary appeared in the *Singleton Argus* on Monday 8 November 1948 (Figure 5.32). It confirms details of her birth in the Maitland district to parents, David and Sarah Manwarring and her age at death as being 87 years. It also indicates that upon her marriage to John Franks the couple settled in the Ravensworth district 'the late Mr Franks following shearing and wool classing before he took up grazing'.



MRS. MERCY FRANKS

Mrs. Mercy Franks, who passed away yesterday morning at the home of her daughter, Mrs. A. J. Smith, of George Street, had attained the great age of 87 years.

Deceased had been in ill-health for about a month, but some two years ago she had suffered a paralytic seizure.

Born at Bishop's Bridge, in the Maitland district, the late Mrs. Franks was the daughter of the late Mr. David and the late Mrs. Sarah Manwarring, whose parents came out to Australia very many years ago from England.

The mother of the late Mrs. Manwarring had attained the age of 108 years.

The late Mrs. Franks was married in the Singleton district to the late Mr. John Calop Franks, who predeceased his wife by some 22 years.

After marriage, the late Mr. and Mrs. Franks settled at Ravensworth, the late Mr. Franks following shearing and wool classing before he took up grazing.

Since the death of her husband, the late Mrs. Franks, who was well and favourably known through the district, has resided with various members of her family, for the last 10 years with Mrs. A. J. Smith.

Deceased reared a large family of 13 children, 11 of whom are still living.

Those who predeceased their mother were Messrs. Sam and Bill and those surviving are Messrs. Joe (St. Clair), Jim (Goorangoola), Charles (St. Clair), Arthur (Jerry's Plains), Dave (Wyong) and Cyril (Jerry's Plains) and Mesdames A. J. Smith (Singleton), C. A. Johanson (Singleton), P. Daniels (Newcastle), T. V. Garland (Reedy Creek) and J. J. McCormack (Sydney).

Also surviving are 51 great grandchildren and 65 grandchildren.

The funeral took place this morning, the remains being interred in the Church of England cemetery at Whittingham.

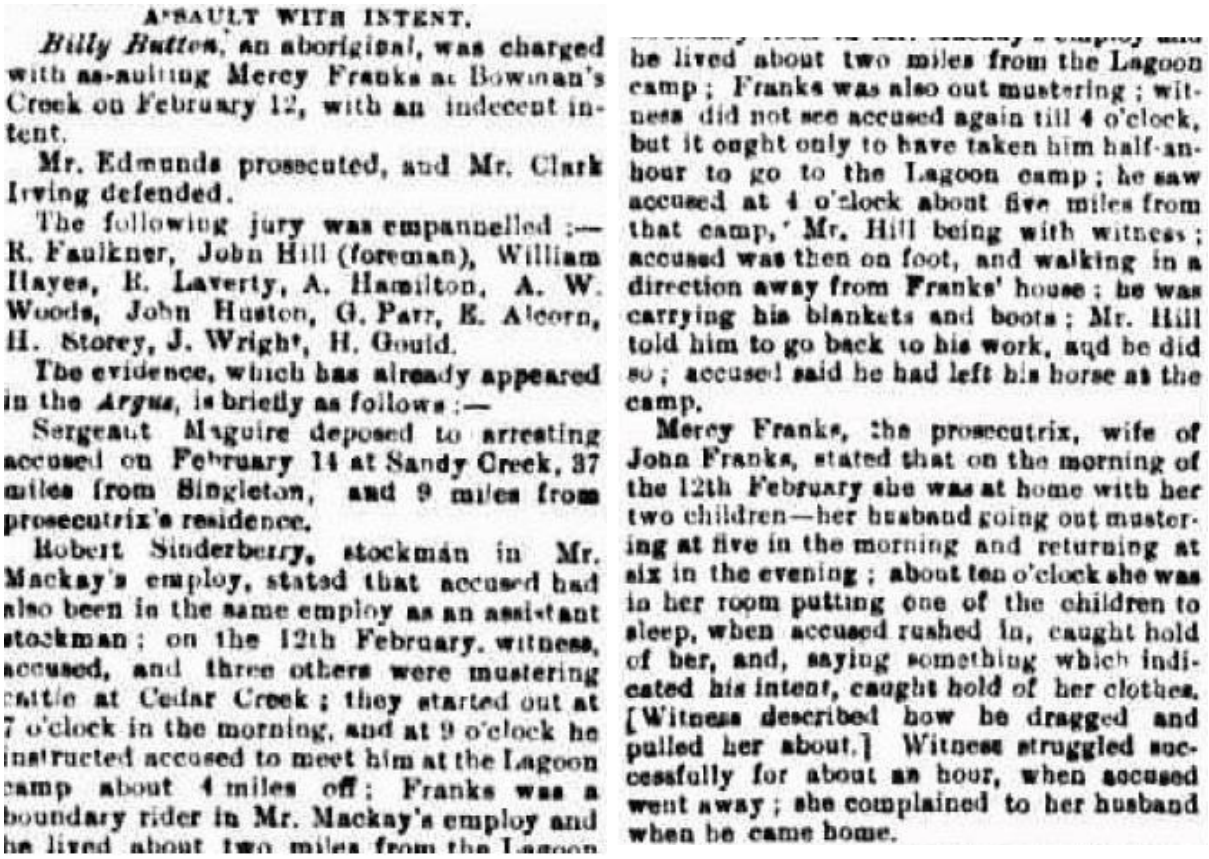
MTC

Figure 5.32. Excerpt from the *Singleton Argus* November 8 1948, p.2 reporting on the death at 87 of Mrs Mercy Franks. (http://n;a.gov.au/nla.news-article84612929.

During February and March 1884 the *Singleton Argus* ran two news articles relating to the arrest and trial of an aboriginal man named "Billy Button' for the attempted rape of Mercy Franks at Bowman's Creek[20]. At the time that the events took place Mercy's husband John is described as being a boundary rider in the employ of Mr Mackay and at the time of the attack on his wife he was mustering stock at Cedar Creek. It is in the period 1882-1887 that Duncan Forbes Mackay was in possession of the Ravensworth Estate (Hunter, 1997). In 1883 the *Maitland Mercury* in fact reported that forty men were employed on the Ravensworth estate (cited in Hunter, 1997:p.12). In the oral tradition of the

[20] i.e. *Singleton Argus*, Wednesday 20 February 1884, p2;and *Singleton Argus* Saturday 22 March 1884, p.2

Frank's family it is understood that John franks was once a boundary rider on Ravensworth, and this seems to equate with the descriptions provided about the Franks family in the case pursued against 'Billy Button'. Interestingly with little description of any argument in defence of the accused 'Billy Button was found guilty of the offence and the presiding judge sentenced him to ten years penal servitude.



ASSAULT WITH INTENT.

Billy Button, an aboriginal, was charged with assaulting Mercy Franks at Bowman's Creek on February 12, with an indecent intent.

Mr. Edmunds prosecuted, and Mr. Clark Irving defended.

The following jury was empannelled :— R. Faulkner, John Hill (foreman), William Hayes, E. Laverty, A. Hamilton, A. W. Woods, John Huston, G. Parr, E. Alcorn, H. Storey, J. Wright, H. Gould.

The evidence, which has already appeared in the *Argus*, is briefly as follows :—

Sergeant Maguire deposed to arresting accused on February 14 at Sandy Creek, 37 miles from Singleton, and 9 miles from prosecutrix's residence.

Robert Sinderberry, stockman in Mr. Mackay's employ, stated that accused had also been in the same employ as an assistant stockman; on the 12th February, witness, accused, and three others were mustering cattle at Cedar Creek; they started out at 7 o'clock in the morning, and at 9 o'clock he instructed accused to meet him at the Lagoon camp about 4 miles off; Franks was a boundary rider in Mr. Mackay's employ and he lived about two miles from the Lagoon camp; Franks was also out mustering; witness did not see accused again till 4 o'clock, but it ought only to have taken him half-an-hour to go to the Lagoon camp; he saw accused at 4 o'clock about five miles from that camp, Mr. Hill being with witness; accused was then on foot, and walking in a direction away from Franks' house; he was carrying his blankets and boots; Mr. Hill told him to go back to his work, and he did so; accused said he had left his horse at the camp.

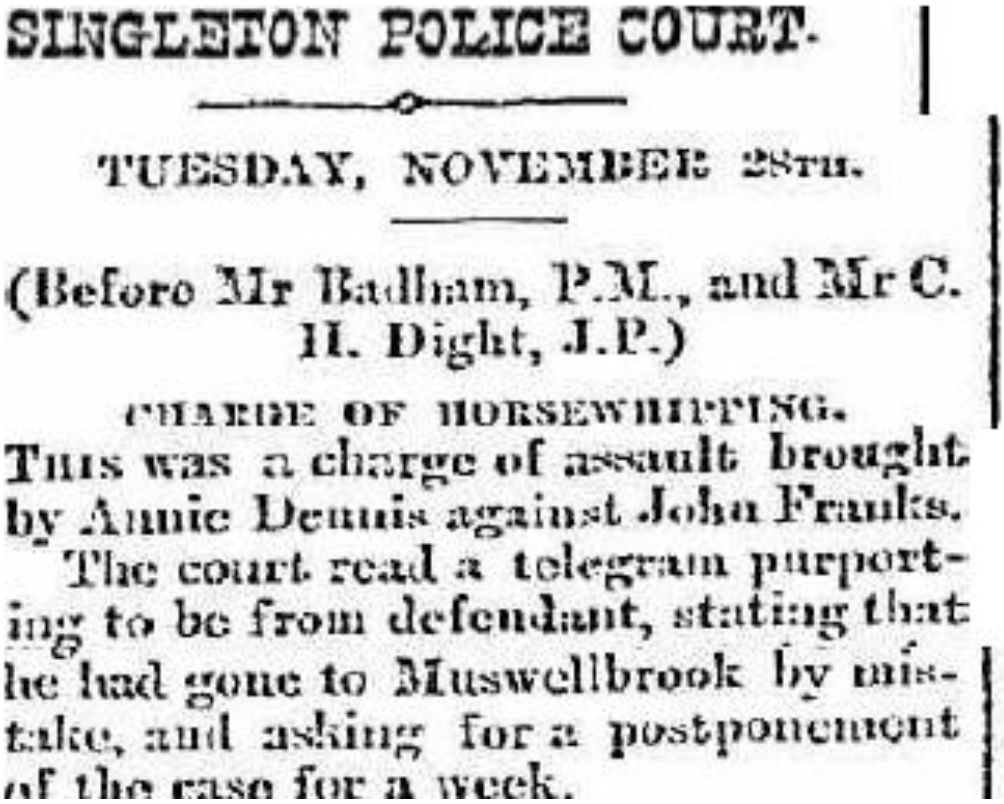
Mercy Franks, the prosecutrix, wife of John Franks, stated that on the morning of the 12th February she was at home with her two children—her husband going out mustering at five in the morning and returning at six in the evening; about ten o'clock she was in her room putting one of the children to sleep, when accused rushed in, caught hold of her, and, saying something which indicated his intent, caught hold of her clothes. [Witness described how he dragged and pulled her about.] Witness struggled successfully for about an hour, when accused went away; she complained to her husband when he came home.

Figure 5.33. Excerpt from the *Singleton Argus*, March 1884, p.2 relating to the trial of the aboriginal Billy Button for the alleged rape of Mercy Franks (Source National Library of Australia: http://nla.gov.au/nla/mews-article82595988).

5.2.1h (c) John Caleb Franks and assault of Annie Dennis, 1893.

On Wednesday 29 November 1893 the *Singleton Argus* reported on a charge of horsewhipping brought by Annie Dennis against John Franks in the Singleton Police Court on the previous day (Figure 5.34). In the Bench trial of the matter in the Singleton Police Court on the 12 December 1893 the evidence presented by Annie Dennis of the personal injury suffered by her - supported as it was by the sworn evidence of medico Dr Alister Stuart Bowman, who had examined her after the assault - was compelling[21]. Nor was the horse-whipping denied by Mr Franks, or by his wife and children who witnessed the assault, although provocation was cited as a motive for it. Consequently John Franks was found guilty of 'an assault of a most brutal character, which not even the evidence as to provocation could justify'. Nevertheless, the maximum punishment of six month's imprisonment for the offence was not given, rather John Franks was sentenced by the Singleton Bench to four months imprisonment in Maitland Gaol with hard labour. It is interesting to contemplate the seeming disparity

[21] The *Singleton Argus*, Wednesday 13 December 1893, p.2 (source: National Library of Australia at http://nla.gov.au/nla/news-article78702566) provides a comprehensive account of the evidence presented at the trial.



SINGLETON POLICE COURT.

TUESDAY, NOVEMBER 28TH.

(Before Mr Badham, P.M., and Mr C. H. Dight, J.P.)

CHARGE OF HORSEWHIPPING.

THIS was a charge of assault brought by Annie Dennis against John Franks.

The court read a telegram purporting to be from defendant, stating that he had gone to Muswellbrook by mistake, and asking for a postponement of the case for a week.

Figure 5.34. Excerpt from *Singleton Argus*, Wednesday 29 November 1893, p 2. (Source: National Library of Australia at http://nla.gov.au/nla.news-article78702339).

between the sentence metered out to Mr Franks for this assault versus the 10 years of penal servitude given as punishment to the Aboriginal 'Billy Button' for the attempted assault of Mr Franks' wife some 9 years earlier (i.e. see Section 5.2.1h (b) above). Yet, the evidence provided in the *Singleton Argus* about this case is most informative as to the personal character and reputation within the wider district of John Franks. It includes descriptions that indicate that he:

> (i) "… was a stockman and able to use a stockwhip…"
>
> (ii) "…was an active man in the ordinary sense of the term, notwithstanding his having an artificial leg: he could not run a race and would be at a disadvantage when on his feet…", and
>
> (iii) "... though a man of hot temper, was not in the habit of striking women…"
>
> (Excerpts taken from news article headed 'Singleton Police Court, Tuesday December 12' [under sub-heading 'Charge of Assault'] *Singleton Argus*, Wednesday 13 December 1893, p.2).

Likewise three witnesses called on behalf of John Franks provide strong references as to his character; and demonstrate his long-term affiliation with the district:

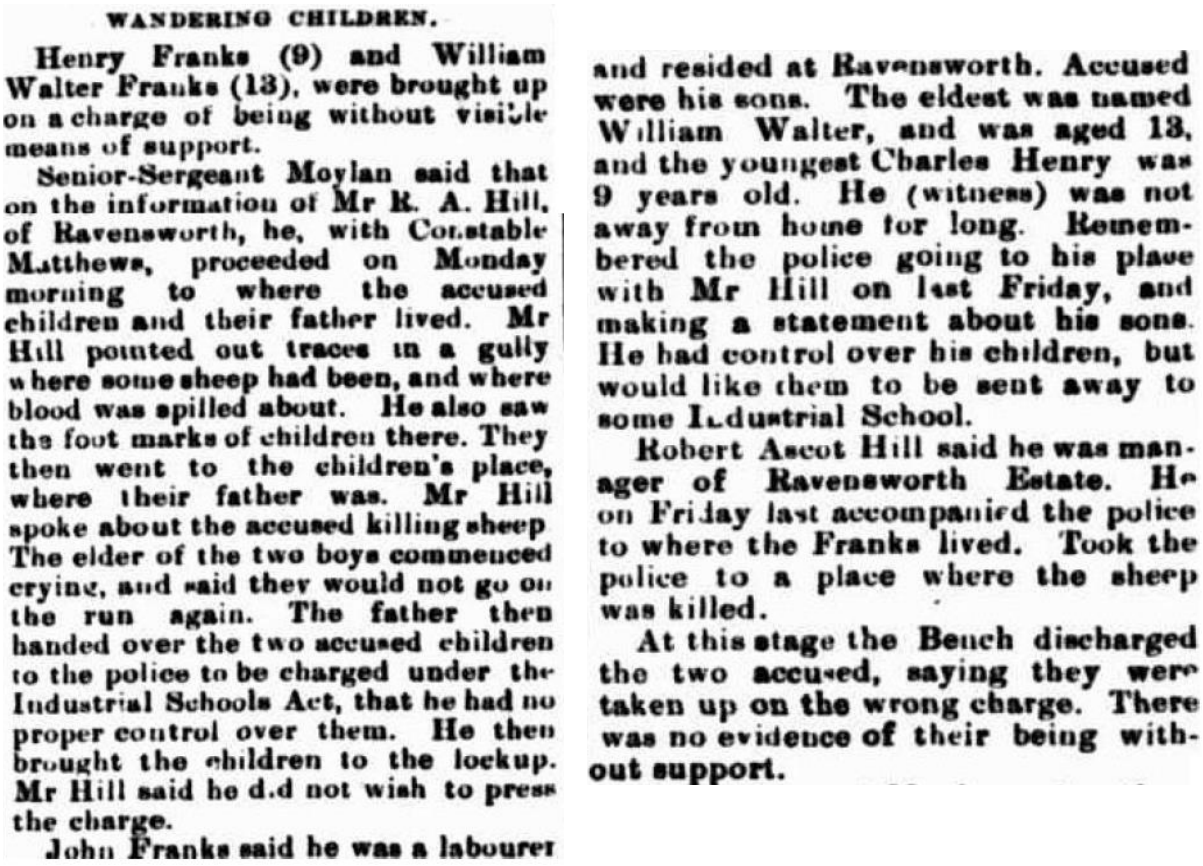
> 'Joseph Whitton, a grazier and storekeeper at Liddell, deposed that he had known defendant as a hard-working man of good character since he was a boy. He had a wife and seven children, and was of a short temper. Job Grainger, an innkeeper at Singleton deposed to having known Franks for 25 years and never knew anything wrong with him. Henry Storey, a storekeeper, of Singleton, deposed that he had known Franks for 14 years as a decent fellow'.
>
> (Excerpt taken from news article head Singleton Police Court, Tuesday December 12 [under sub-heading 'Charge of Assault'] *Singleton Argus*, Wednesday 13 December 1893, p.2).

5.2.1h (d) John Caleb Franks and his 'Wandering Children', 1897.

In 1897 the *Singleton Argus* reported on a charge of being without visible support brought against Charles Henry Franks and his older brother William Walter Franks (Figures 5.35 & 5.36). [22] The charge and the machinations of the court proceedings involved are of particular importance as they describe a unique intersection between antecedents of the PCWP and the Ravensworth Estate. In effect although determined to have been wrongly charged with being without visible means of support and hence speedily discharged by the Singleton Bench; the two boys were immediately re-arrested and charged with having killed one sheep the property of the Mackay brothers of Ravensworth Estate. There is an air of 'neighbourly' benevolence demonstrated in the reported actions and statements of Mr Robert Ascot Hill, the Manager of Ravensworth Estate with regard to the incident. In particular the *Singleton Argus* reported that:

> "Mr Hill said he did not want to press the charge. The accused belong to a very poor family, and it was only hunger that made them kill the sheep."
>
> (*Singleton Argus*, Wednesday 14 July 1897, p.2)

It is likely that the small size of the Franks family holdings coupled with the economic depression that 'hit' Australia in the early 1890s were contributing factors to the apparent poverty experienced by the Franks family at this time.



WANDERING CHILDREN.

Henry Franks (9) and William Walter Franks (13), were brought up on a charge of being without visible means of support.

Senior-Sergeant Moylan said that on the information of Mr R. A. Hill, of Ravensworth, he, with Constable Matthews, proceeded on Monday morning to where the accused children and their father lived. Mr Hill pointed out traces in a gully where some sheep had been, and where blood was spilled about. He also saw the foot marks of children there. They then went to the children's place, where their father was. Mr Hill spoke about the accused killing sheep The elder of the two boys commenced crying, and said they would not go on the run again. The father then handed over the two accused children to the police to be charged under the Industrial Schools Act, that he had no proper control over them. He then brought the children to the lockup. Mr Hill said he did not wish to press the charge.

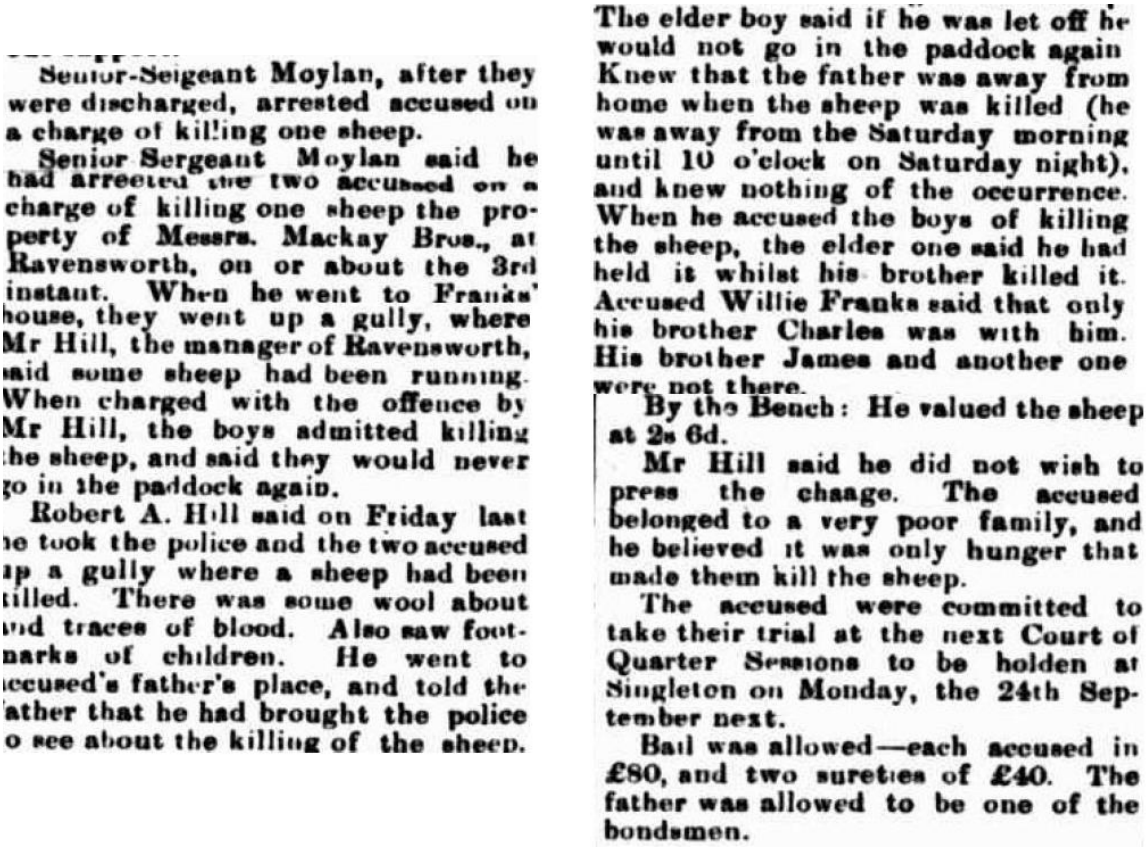
John Franks said he was a labourer and resided at Ravensworth. Accused were his sons. The eldest was named William Walter, and was aged 13, and the youngest Charles Henry was 9 years old. He (witness) was not away from home for long. Remembered the police going to his place with Mr Hill on last Friday, and making a statement about his sons. He had control over his children, but would like them to be sent away to some Industrial School.

Robert Ascot Hill said he was manager of Ravensworth Estate. He on Friday last accompanied the police to where the Franks lived. Took the police to a place where the sheep was killed.

At this stage the Bench discharged the two accused, saying they were taken up on the wrong charge. There was no evidence of their being without support.

Figure 5.35. Excerpt from Singleton Argus Wednesday 14 July 1897 headed 'Wandering Children' paragraphs 1-5. These paragraphs relate to the charge of being without visible means of support (Source Http://nla.gov.au/nla.news-article83253611).

[22] It is these two sons of John Caleb Franks that marry the only two daughters of William 'Billy' to forge the direct genealogical connection between the PCWP and the Franks family.



Senior-Sergeant Moylan, after they were discharged, arrested accused on a charge of killing one sheep.

Senior Sergeant Moylan said he had arrested the two accused on a charge of killing one sheep the property of Messrs. Mackay Bros., at Ravensworth, on or about the 3rd instant. When he went to Franks' house, they went up a gully, where Mr Hill, the manager of Ravensworth, said some sheep had been running. When charged with the offence by Mr Hill, the boys admitted killing the sheep, and said they would never go in the paddock again.

Robert A. Hill said on Friday last he took the police and the two accused up a gully where a sheep had been killed. There was some wool about and traces of blood. Also saw footmarks of children. He went to accused's father's place, and told the father that he had brought the police to see about the killing of the sheep. The elder boy said if he was let off he would not go in the paddock again Knew that the father was away from home when the sheep was killed (he was away from the Saturday morning until 10 o'clock on Saturday night), and knew nothing of the occurrence. When he accused the boys of killing the sheep, the elder one said he had held it whilst his brother killed it. Accused Willie Franks said that only his brother Charles was with him. His brother James and another one were not there.

By the Bench: He valued the sheep at 2s 6d.

Mr Hill said he did not wish to press the charge. The accused belonged to a very poor family, and he believed it was only hunger that made them kill the sheep.

The accused were committed to take their trial at the next Court of Quarter Sessions to be holden at Singleton on Monday, the 24th September next.

Bail was allowed—each accused in £80, and two sureties of £40. The father was allowed to be one of the bondsmen.

Figure 5.36. Excerpt from Singleton Argus Wednesday 14 July 1897 headed 'Wandering Children' paragraphs 6-13. These paragraphs are specific to the charge of sheep killing (Source Http://nla.gov.au/nla.news-article83253611)

5.2.2 Shared landscapes and Wonnarua traditions

The range of historical associations identified in Section 5.2 provide a clear indication that Mt Owen and its surrounds are part of a cultural landscape of immense historic heritage value to the PCWP. This is primarily due to the multiple and complex associations of Matilda Smith (nee Hughes) and her descendants with the people and places of the Ravensworth, Bowman's Creek, Glennies Creek, Mt Olive, Goorangoola and Carrowbrook areas from at least the 1850s to the present. The historical associations of the lives of the Smith clan with the Gaggin family of Sydneham are especially pertinent as is the later intersection of the descendants of John Caleb Franks with the Smith-Hughes family.

The life of Matilda Smith, when considered in the context of her fully traditional born maternal antecedent, Mary 'Aborigine' and those of her descendants (including Mary Lester and her children Augustus and Henrietta Lester; and William Billy Smith and his daughters Sarah and Mary) provides a significant and important record of the process of the cultural transitioning of the PCWP from an exclusively traditional Wonnarua way of life to contemporary modes of living within the Singleton LGA and beyond. An important component of this transitioning is the negotiation of dual Aboriginal and modern Australian identities. In this regard government archives, family memorabilia, photographs and stories about the World War I experiences of Alister and Augustus Lester attest both to the **National Significance** of the historical negotiation of Aboriginal and Australian national cultural identities; and its personal consequence for the Lester family.

This duality of lived experience appears true for many of the PCWP both past and present. Today, as the information in this report firmly indicates, the Heads of Family of the PCWP have a strong Aboriginal identity with specific knowledge and connection to the physical and spiritual landscape of Wonnarua country; and respect for the traditional lores and customs of their Plains Clans society. Equally they are modern Australians within an ever globalised world with use and access of mobile phone, internet, and digital TV technologies; and fundamental use and respect of the law and practices of Australia today. Yet, it is an historical narrative that consistently emphasises a *continuity* of association of members of the PCWP with land and landscape in the Glennies Creek-Bowman's creek area. It is not simply a story of dispossession and alienation from tribal lands. Nor is it one of regeneration of Aboriginal identity within the socio-centre of the Aboriginal reserve or mission, as is elsewhere typified for the Hunter Valley (Blyton & Ramsland, 2012). It is a narrative of persistence, adaptation and cohabitation with various settler families. It is a story of a negotiated spaces and shared landscape in the 'Country' to which the PCWP recognise that they now and forever have belonged.

5.3 Social values

In its broadest terms the Burra Charter describes social value as embracing the "qualities for which a place has become a focus of spiritual, political, national or other cultural sentiment to a majority or minority group" (Marquis-Kyle & Walker, 2004). What follows is a documentary record of some of the social and spiritual values that the PCWP ascribe to the lands and creek systems of which the Project area forms an integral part. It is not an exhaustive telling of the spiritual and social values that the PCWP retains in this landscape but reflects those values the PCWP has agreed are to be conveyed in order to best express the cultural importance of the Project Area to the proponent, especially in the timeframe allotted to enable these values to be appropriately inserted into the full Aboriginal Cultural Heritage Assessment Report that is being prepared for the project EIS.

5.3.1. Spiritual values

As elsewhere in Aboriginal Australia the spiritual beliefs of the PCWP describe the creation of Wonnarua land and link this landscape with their ancestors. The activities of creative beings and ancestors of long ago transformed the world and laid down the pattern of life and the laws of the PCWP. Today the spiritual presence of the beings and the tangible evidence of their activities during the creation era are embodied in physical features of the landscape. Stories of the events and the associated sites are the cultural property of the PCWP and this knowledge has been passed down through the generations.

As will be outlined below with examples exclusive to the PCWP the Project is part of a physical and mythological landscape of enduring importance. However, what must also be stated is that the PCWP are only too well aware of the isolation, fragmentation and loss of connectivity with, and between, elements of this spiritual landscape. This deterioration in the spiritual landscape of the Wonnarua is not an entirely new phenomenon. It in fact commenced with the uptake of the first grants of land by European settlers in the Central Hunter in the early 1820s. However, it is the degree, scale and permanence of current and future mine induced landscape modification that has had and/or is likely to have the most profound effect on the spiritual landscape of the PCWP. In addition, the cognitive ownership of the related mythologies whilst strongly vested with the PCWP has been long subject to

challenge as early ethnological recordings of physical elements of this landscape and its associated stories have been provided to the wider public for more than 100 years (e.g. Mathews, 1897, *Singleton Argus*,1893). It is therefore not simply the generic recounting of these creation myths that provides proof of their authenticity or of their enduring spiritual importance. The PCWP establish the authenticity of their spiritual beliefs by their immediate association with the story telling of fond Aunts, Uncles and Grandparents; and in their detailed recollections of these personalised stories. The following are some of the stories told:

5.3.1a Biami[23] and the creation of Wonnarua Country

In a recent statement to the Native Title Tribunal Mr Scott Franks outlined the following story, as told to him by his Uncle Clyde (Franks, 2012, para. 17). It is a creation story that clearly affirms for Scott the interconnectedness of the biophysical environment of Wonnarua Country and the spiritual realm from which it was created, and through which it continues to be protected and sustained.

> "Before our people were allowed to enter the lands known today as the Hunter valley our creator Biami looked down from the skies. He then stepped down onto Big Yango with his son, Little Biami. As both then stepped onto Little Yango, Big Biami looked across the area and started to move the lands to make the valleys. As both then moved across the area Biami opened up the lands and made the hills and streams and gave life to the area, as both moved from Yango up into the Hunter valley, Biami and his son placed the animals in the lands and the birds in the skies.
>
> Biami then looked at the waters and brought the fish. He first placed the mud gudgeon to settle the muddy water that was created from the new water as it flowed through the new streams. After the mud was settled he then put the catfish in the water and ordered him to make his nest of rocks on the bottom of the streams to slow the water. Once the stream has settled Biami set the other fish loose in the creek. The perch to hide and watch under logs and holes in the bank and yabbies to build up the banks and to eat all the grasses that were left in the lower streams. He then placed the sprat that all swam together travelling up and down the streams making sure everything was working (I recall too that Uncle Clyde used to call sprats sugar fish because they were so sweet. He would smoke them and eat them whole and he always took a special "sugar bag" with him in the bush just in case he came across some in the creek during our travels).
>
> Once the water was in place Biami then started in the land so our people could live. He put the trees in the ground, and then blew his breath to make the wind. This wind pushed out and made the plains. Once the land settled our people were let go into the lands. Biami told all not to cross certain area's as others would come, the lands that was here was for our people and to look after it. As Biami move across the lands the trees started to grow. To watch over the trees Biami brought **Yarra** (Koala).Yarra was told to watch over our people in the campsites and the scrub as Biami would not be able to see them from the sky once the trees had grown. (Our mob was never allowed to harm any Yarra).
>
> He then placed the Kangaroo (kaNawang) on the land to help make the tracks and flatten out the lands. The Kangaroo was told that he could be hunted buy our people so he asked Biami for help to prosper so Biami gave him long legs to help him stand high, and be fast and ears that moved all around. He told the Kangaroo to always look for our people. As Biami watched our people he helped them with fire from the sky and showed them where to go for shelter when it was cold and where to camp when it was hot.
>
> He told them to camp near the water when hot and when it was cold to move to the caves he had made. He told our people that he would make the springs near the caves so we could get water. In the springs he ordered the Yabby to live. He then gave the turtle legs so he could walk on the lands and so he could grow in the ponds formed by the spring. He also told the Eels that they could move on the lands only at night and in the early morning so he also could grow in the springs and ponds.

[23] It is recognised that there are variant spellings of the name of the creator and protector of Wonnarua Country, the spelling adopted herein is as per Mr Franks' statement to the Native Title Tribunal.

> Now that our people had shelter and food Biami looked at the sky and made night and day, sunlight and rain. Our people were lost with the darkness of night and Biami saw this and so he placed the Moon and the stars in the sky and made the fire-fly. The fire-fly allowed our people to see that trees with fruit were nearby so they could eat and wait for the day to come. He also set the flying fox to watch over our people at night.
>
> Biami then grew the ranges and the mountain around the Valley and told our people not to cross them as other people would be in those areas and it was their home not ours. As he was building up the Liverpool Ranges some of our people crossed into that area including six (6) men from the one family. Biami saw this and the men were taken. One of the wives started wailing and cried to Biami asking why he would take her man and Biami told her that all were warned. The wife told Biami that she would sit and wait till her man returned. As she sat on a high rock waiting and crying Biami looked down and turned her into stone forever as a warning to all our people. As she was turning to rock one of her tear drops fell from her crying face and set a light a cave and Biami to this day has kept that fire burning. (This is Burning Mountain). This area is known to be the border of our lands in the North. Biami told our people what he had done to the woman and ordered them to use that fire, carry fire sticks and to make fire at all our campsites. He warned all not to cross the ranges or risk what would happen.
>
> Biami then turned his attention onto the lands in our country and to help our people move around the lands he gave them ceremonial tracks and taught them how to walk through the land and tell the stories of our people. He said ceremonial tracks will be used to teach what is needed to live in your lands.
>
> Many of these ceremonial tracks are still in place today. One ceremonial track runs from the apex of the Barrington Tops right back to Yango. This track moves down out of Barrington Tops, following Glennies Creek, it passes through Carrowbrook, down to Falbrook and then it continues all the way to Jerrys Plains, Warkworth, Bulga and to Yango. When walking along this track our people would tell this story of how the land was made and of what was expected of you to live in our lands to ensure that the story was told to all in the lands."
>
> (Franks, 2012, para. 17).

For Scott, the Project area encompasses the ancestral lands created by Biami for the Wonnarua to enjoy. Likewise all traditional ecological resources to be found today within the Project Area are as those provided by Biami in ancestral times to ensure that he and his ancestors could survive off the land. In a story that relates to the area to the north of Mt Owen Scott provides some further example of the important connections between ecological resources, Biami; and family.

> Half way up Mt Royal Road, at Carrowbrook, there is a place called Cedar Creek. This is the stream that feeds the lower plains all the way down the valley. I was told by Uncle Clyde and Ashley that this creek came from the ground (a spring). This ground water was put there in the beginning times by Biami. I was told that when he was pushing out the lands and moving the hills back, Biami reached into the side of the mountain with one of his tears and pushed it deep into the ground and that is the place that the water comes from. In this stream you can find gold this was placed their when Biami pushed his hand into the land the Gold ochre came off his skin and was left behind leaving the gold flakes behind this is why Gold ochre is important to our people. It is the colour of our creator. That same stream is always clean and weed free. Biami put the clear shrimp in that place to always keep it clean. I recall me and Uncle Clyde and Ashley would go up to this creek and get the shrimp by pooling the water and then Ashley would scoop up the shrimp with a hand a net made from the leaves of a grass tree. He would spend around an hour scooping up the water. As the ponds we would make in the stream were always made where the sandy bottoms were, me and uncle Clyde would get a few meters upstream from the pond and walk in the water and the shrimp would move down stream to where Ashley was waiting to scoop them up from the ponds we had made.
>
> 'Carra' [blackbird] was an important area for our family since traveling this way we could cross all the way to the other valley and into Scone and the top of our peoples country, going this way we could collect all sorts of native foods and items. I always have fond memories now of when I was young and my Uncles and Aunties would find out I was going to 'Carra' - with or without uncle Clyde - hunting for orchids. I would always get a shopping list from my Aunties. Aunty Flo would always want wild gooseberry's, whether in season or not, or the fruit from prickly pears so she could make her pickles. Dad would always ask me to keep an eye out for Rainbow trout that the steams up there was full of. Dad showed me when I was young how to 'tickle a trout'

> straight out of the water. You would slowly slide your hand under the trout as he lazed in the stream sunning himself in the shallows. As your hand slowly went under him you would tickle his belly and slowly put him to sleep, then gently lift him out of the water. I know this sounds farfetched but I have done this and it works. As an adult I joined the Army, and my unit was sent to the Barrington for a 3 day survival training with one 24 hour ration pack. I recall coming back to the depot with my ration pack still intact. I had caught rainbow trout, freshwater prawns and yams and berries for the three days. The 3 days for me was not stressful as I was home in the lands I roamed as a boy.
>
> Scott Franks, June, 2013

The Project area is part of a cultural landscape of immense and enduring spiritual value. Within this landscape ancestral ceremonial tracks are pathways and guides to the lores and customs required to ensure the health, prosperity and sustainability of the Wonnarua people.

Maria Stocks (Stocks 2012, para. 15-17) outlines the importance of storytelling in the development of her understanding of the interconnection between the physical and mythological elements of Wonnarua Country.

> "Stories relayed to me by my grandparents of the times they had spent in Wonnarua Country - and of the things they were told by their parents - were often shared during picnics held at a lovely spot along Glennies Creek up on Old Carrowbrook Road… During these picnics we would listen to stories about the creation of Wonnarua country and about those special places and/or beings such as Biami, Tidilick the Frog and Burning Mountain that were of and from the beginning of time. I was told that a cave at Milbrodale was painted with an image of Biami. He was painted there to welcome people to the territory of the Plains Clan and, with his arms outstretched facing east northeast, he was there as a guardian and protector of our people and our clan country. I was also told of the ceremonial tracks that linked sites such as Biami Cave the corroboree sites at Bulga and the old home spaces of my people up near Mt Olive and Glennies Creek. I was also told that there were many of the sites that women (females) should never go near. Burning Mountain which is up near Wingen, at the northern end of the territory of the Plains Clan of the Wonnarua, was one such place that my mum would never go near or pass by for fear that she would anger Biami. She would avoid driving up that way to Tamworth so that she was never in sight of this mountain.
>
> (Stocks 2012, para. 15-17)

5.3.1b The "Hairy Men" and other Leery People

In addition to creation beings the mythological realm of the PCWP is populated by other spirits, many of which are not benign protectors but rather scary and malevolent beings. Scott Franks (2012; para. 8) recounts the following story of the malevolent Hairy Man:

> "Not long after this Dad and Uncle Clyde sat me and my brothers down and told us of the Half Moon Brush. This area was across the creek and up to the north about 1 km from where we lived, you could see it from our home. Dad and Uncle Clyde told us of the Hairy Man that lived there. As boys my dad and his brother were out in that area Dingo hunting when they shot some Wonga Pigeons. They left them behind on the roo track to collect them on their return. On their way back as they come out of the Half Moon Brush a "Hairy Man" had found the Wonga Pigeons and was eating them. Dad and his brother heard the Hairy Man yell out and this scared them and they ran home. Dad's mum had told them that the Hairy Man lived in that brush and that he could stop time. This is how he could both scare and run away from people. She told my Dad and Uncles not to ever go back to the Half-Moon Brush as it was the Hairy Man's place. She said that "if he gets you you'll be trapped in time and vanish". Dad always told us boys that we were not allowed to go to that Brush as he and his brothers had seen the Hairy Man and they were lucky to have got away".

Below, Maria Stocks (2012, para.9) similarly describes the story of the Hairy Men as told to her by her Grandmother:

> "When David and I were young Gran told us stories about the "Hairy Men" that lived in the mountains and how these spirit creatures could make time stand still so as to get away from and/or avoid people. Gran told us that these Hairy Men came down at night looking for food...she said they stunk really bad…and that they looked in the windows when they heard a baby cry".

Interestingly in conversation with Charlie Franks (*pers. comm*. May, 2012) he speculated that as much as these beings were described by his parents as being real, in the light of his adult eye they were also effective stories through with which his Dad had "scared the shit out of him" and stopped him and his brothers running about after dark. In this adult expression of the role of story and the spiritual realm in the lives of PCWP members, Charlie indicates that the spirit beings described and invoked by his parents had a very practical role in the discipline and socialisation of him and his brothers. This social role, which through the telling and retelling of stories had continued into the present, was clearly traditional in its origin and reflects the ongoing interconnectedness of the spiritual realm and the secular realm for the PCWP.

Scott Franks (2012, para. 8, 9 & 12) also describes other of the malevolent spirits he was told about by his parents and uncles. These beings may warn of imminent trespass or encounter with a ceremonial place for which you must have permission to enter or they may simply be protectors of the spirits of dead ancestors. Either way it is clear that the stories provided to him by his Dad and uncles were designed to equip him with the skills and knowledge to negotiate safely through this spiritual realm:

> "One night me and my brothers were walking in the scrub on our way to go eel bashing when we heard a loud noise like footsteps going "crunch, crunch" through the scrub in front of us. As we stopped to listen and tried to work out what is was we heard a loud crash in the nearby waterhole. We then saw a bright light coming up from the water. At this stage I took off running home with my brother's behind me. When we got home Dad was waiting for us and he told us off as if he knew where we had been and what we had been up to. We told Dad what had happened. He told us that we had gone too close to the "Blacks Camp" and that one of the spirits had come to warn us not to go any closer. My brother told me that before they could run the light in the water had come to the surface and it was glowing with a man inside it. The next day Dad got us all together and told us to stay away from there at night as at night time the protector of the valley was there watching over the body's that were left to rest".
>
> Up the road from where we lived there is a hill with a cliff on RazorBack Mountain that we called "Baybuck". This was a bad place. It was told to me by Uncle Clyde and Ashley Hedges that in the early days the solders that drunk all the Rum [the Rum Corps?]took some of the Black Fella's and threw them off the cliff and shot all the Aboriginal women too. One of the woman's head was cut off and thrown in to a gully up from our home. At night Dad and my Uncle told me that she could be heard shaking a chain and not to go up there after dark.
>
> "… I was taught that the fire that we made needed to be very smokey as smoke would clear the path for us to go ahead. Uncle Clyde and Ashley told me that this was a protected area and we needed to do this to let the "Leery People" know that we were from that area and to let us pass through. Leery People, as my Uncle explained it, were small spirit people that would torment you and that smelt really bad. The Leery People would guard certain areas and stop other Mobs going that way as we were getting close to the back of the property known as Sunnyside on Bridgeman Road. This property was adjacent to Sydenham and the ceremonial site where my great grandfather had been born".

5.3.1c Totems and Taboos

The use of natural species as totems or 'skin names' to define classificatory kinship relationships is recognised as being common within traditional Aboriginal societies across Eastern Australia (Radcliffe-Brown, 1929). At its most elemental, this use of classificatory skin names provided a means of social regulation whereby each individual within a language and/or clan group understood their relationships, roles and responsibilities to all other individuals within their group (Radcliffe-Brown 1929). Equally though the use of natural species, predominately animals, as totems and skin names brought both secular and ritual responsibilities to bear on individuals with regard to the animals to whom they were of the same 'skin'. In particular responsibilities to protect animals of the same 'skin' often resulted in hunting and eating restrictions on certain species (Rose *et al.*, 2003). The PCWP recognise a number of animal species to which traditional (and ongoing) totemic responsibilities apply. Of these, the primary totemic species recognised by all members of the PCWP is the wedge tailed eagle. This bird of prey is recognised as an important living embodiment of the 'eyes of Biami' and as such commands (and receives) the utmost respect and protection from the PCWP. Other species recognised to be totemic animals similarly protected by the PCWP were the Curlew, the Koala and the Black Snake. Of these, Scott Franks recalled how his father showed particular affection for the Koala:

> "Dad has a real love of Koalas. He always protected them and taught us kids not to harm or touch them. When I was a kid he rescued a baby Koala. The mother was a road kill. He brought it home and with the help of mum who cared for it - and she was always caring for some sort of wildlife - it survived. We called it 'Blinky Bill' and it lived with us for about ten years, 'til the National Parks people found out and came and took it off us. Not long after that Dad went to go see it and found out it had died. He reckoned it was 'cause the poor thing had fretted from being removed from us
>
> (Scott Franks, *pers.comm,* October 2012).

In contrast other animals were strictly taboo species because they were associated with 'bad' or malevolent entities. Of these the Wonga Pigeon was considered taboo and dangerous to be eaten because of its being a food of the Leery People. It was therefore best avoided. Eels are also described as a taboo species not to be eaten as they did not have scales. However rather than avoid them the practice of 'eel bashing' was used to managed their numbers and ensure that they did not out compete other scaly fish species within the creeks and rivers of Wonnarua Country.

5.3.1d 'Clever Men'

In current colloquial terms an initiated Aboriginal male with a superior ritual knowledge and an ability to enter into and commune with the spirit world is referred to as a 'Clever Man' (Berndt & Berndt, 1998). I have identified two individuals that in the oral traditions of the PCWP are considered to have been 'Clever Men'. The first of these is William 'Billy' Smith, the great grandfather of Scott Franks. 'Billy' was born in 1858 on the property Sydenham, where his father James Smith worked as a labourer. Sydenham is situated along Glennies Creek Road less than 5km northeast of the village of Camberwell, and about 5km southeast of the Mt Owen North Pit. As Scott Franks has previously explained to the Native Title Tribunal:

> "My Dad also told me that my great grandfather 'Billy' had been born on a ceremonial site at Sydenham. By being born on such a site this signified that my great grandfather was special and would (and did) later become a lore man and Wonnarua 'Chief'"
>
> (Franks, 2012, para 1).

In a recent discussion with Maria Stocks regarding her grandfather James Leslie Smith, she revealed to me that her grandfather was a clever man. I sought some further information from Maria about this and she provided me with a written communication to the effect that:

> "My grandfather was initiated but also he was a 'Clever Man' (not allowed to use the correct word). He performed healing/marriage/naming/punishment/medicine ceremonies. He was a spiritual man. We weren't to speak of the things he done. He once sent his spirit out to our home. I woke up and there was a table in the room next to my room. I got up and walked past the room and he was sitting on this table laughing. He said to go get your mother. I did and mum went in and she wasn't happy. She told him to go home and the next day mum, yelled at Pop saying "You could have killed Maria with fright". He said "she was laughing – don't be silly". They didn't speak for some time."
>
> (Maria Stocks hand written note May 2013).

5.3.1e Ceremonial places and pathways

The repeated use of pathways as a means of traverse of the Australian landscape is a common reported feature of traditional Aboriginal society (e.g. Belshaw, 1978; Campbell, 1978; Steele, 1984; Godwin, 1990, 1997; Morris, 1994; Sahukar et al, 2003; Donovan & Wall, 2004, Harris, 2004; McBryde, 2004; Beck, 2006). So too the ethnographic record is replete with first-hand accounts of the aid provided by Aboriginal guides to explorers, surveyors and early settlers during their excursions into the 'colonial frontier' (*e.g*. Wallis, 1821; Brown, *c*. 1825; Cunningham, 1827; Breton 1834; and see Lee, 1925). Breton (1834: 186) for example, notes the following:

> "The natives on the Hunter resemble their neighbours in every respect. In common with all those tribes with which we are acquainted, they make excellent guides, when well treated; but when hard pressed, which is sometimes the fact, when accompanying persons on horseback, who forget that a horse at a good walk goes faster than is convenient for a man on foot, they turn sulky, and avail themselves of the first opportunity to give their employers the slip"

Today the PCWP recognise pathways as having both secular and/or sacred roles. In a secular vein they mark traditional routes through Wonnarua country traversed by their ancestors either in the daily search for and procurement of food and shelter, or in the seasonal cycles of return to known resource rich camping areas. Within the sacred realm the PCWP identify that pathways map the movement of creation beings across Wonnarua Country and link sites where physical manifestation of these beings occur. In addition they are the physical routes taken through 'Country' during important ceremonies such as initiation and often these pathways intersect sites where creation beings are manifest. Hence as previously referenced in Section 5.6.1a Maria Stocks (2012: para.16) noted that she

> "was also told of the ceremonial tracks that linked sites such as Biami Cave the corroboree sites at Bulga and the old home spaces of my people up near Mt Olive and Glennies Creek".

In the following extract Scott Franks (2012 para. 9,10,11,13,16, 17i and 19) indicates his knowledge of important ceremonial tracks and places. This extract is accompanied by a map showing the locational relationship between elements of these ceremonial tracks and the Project (Figure 19). In the extract Scott describes the way in which he was physically brought to knowledge of these places in his childhood, whilst being in the bush in the company of his Uncle Clyde and Cousin Ashley. In this description we see that for Scott the physical, socio-cultural and spiritual domains of this landscape are not separate but rather are fused, as an interconnected network of nodes and pathways with multiple cultural values and meanings. These nodes and pathways have a clear physical dimension in the creek systems that exist today but also as demonstrated in Scott's recount, these pathways have

been “burnt into his head” as he listened, learnt and walked in the bush with fond Elders. This is both a clear affirmation of Scott’s cognitive ownership of this landscape and a demonstration of the way in which, for him at least, traditional and contemporary, sacred and secular meanings coalesce in the ‘walking’ and ‘talking’ in and about Country.

> “On the days that Uncle Clyde, Ashley Hedges and me would go out to the bush we would travel most of the times along the creeks from Mt Olive through to Bulga and the Putty. We would not take any food or water as Uncle Clyde and Ashley would teach me what food and resources were around for me to use. For most of this time I walked barefoot and only commenced wearing shoes when I had to wear them to attend High School. It was just one more reason not to enjoy School. My Dad used to joke about how tough the soles of my feet were saying that he reckoned he could light a match on my feet as they were so hard.
>
> I was told that the creek formed the only route which I should use to travel through the country of my people. It was the track which my family would use to travel to ceremonies and to move across country to get food. As we walked along my Uncle and Cousin would talk and I would listen and learn. About a kilometre downstream from the Mission we would normally stop at the same place along the creek. This was a place where the channel of the creek became wider and deeper. At this place there were some big old she-oaks along the creek bank that had rings cut into them forming bands around the trunk. Uncle Clyde told me that when he was a boy he and his brothers had climbed the trees, cut the rings around them then jumped into the creek. This had been a normal game for Uncle Clyde and his brothers...
>
> Once we left this area we would continue downstream and come to an area called ‘Yankees Drop’. In this area we would stop and uncle Clyde and Ashley would make a small fire. Ashley would collect some bark from the paperbark tree and grind it up. Uncle Clyde would then mix the ground paperbark with the insides from the “Black boy” (grass trees) that grew at this place he would then use a long short stick and some cord with a small block of wood that he kept in his dilly bag. The block had a carved gate in it with a small indent. Uncle Clyde would put the grass tree and the paperbark in it, push the stick in then use another stick with the cord and pull it back and forth. This would spin the stick and heat up the material. Then he would drop that in. Then he would get me to blow on it softly and as I did this he and Uncle Ashley would ask the flame to come. (When this happened I did feel pretty special)…
>
> At about this point in our travels me, Uncle Clyde and Ashley would leave the creek and walk up the hill towards this ceremonial site. It was made of stones that were arranged in a circle that had two openings one facing north and the other facing south. A path lined on either side with rocks extended out from each of the openings acting like corridors which we used to enter into the circle. My Uncles reminded me that you couldn’t go into the “guts” of the circle but had to keep to the edge of the circle. I would also be reminded that this was because you could only go into the centre of the circle to speak and you could only speak if you had authority to do so. My uncles and I would walk silently though it but would never go around the outside of it as it was also not allowed. Uncle Clyde and Ashley would always tell me about the boys coming here to become men. Ashley would tell me about how they would be in this area for over a week being shown how to catch fish and hunt. I was also told that somewhere nearby was a women’s site also arranged with stones…
>
> After being in the area for about three days I was told that these boys would then move off upstream towards the stone ceremonial site at Sydenham to continue their lessons. The boys would then make their way to Bowman’s creek and continue downstream towards the Hunter River where they would then follow along the sandy creek banks of the Hunter eventually to arrive at a big bora ground near the present village of Warkworth where large ceremonies would take place.
>
> Many of these ceremonial tracks are still in place today. One ceremonial track runs from the apex of the Barrington Tops right back to Yango. This track moves down out of Barrington Tops, following Glennies Creek, it passes through Carrowbrook, down to Falbrook and then it continues all the way to Jerrys Plains, Warkworth, Bulga and to Yango. When walking along this track our people would tell this story of how the land was made and of what was expected of you to live in our lands to ensure that the story was told to all in the lands…
>
> An extension of this ceremonial track allowed people to move across from the Falbrook-Ravensworth Area down both Glennies and Bowmans creeks into the Warkworth area and then back up the Wollombi Brook, through Jerry's Plains past Plaschett and across to Apple Tree Flats. This route was burnt into my

> head as a child by my Uncles, Aunties and Father as the only way our people (my family) could travel to get to the bora. I was also taught that my family would return to Falbrook after the ceremonies had finished by way of Nine Mile Creek, Loders Creek then across to the Hunter River and back to Mt Olive and St Clair."
>
> (Franks, 2012 para. 9,10,11,13,16, 17i and 19)

This recount also alerts us to Scott's awareness of the need for reinforcement of the values of each known pathway and place via ongoing physical engagement with them (the "walking") and by ongoing oral transmission (the "talking") of their stories to other members of the PCWP. As he succinctly states "*When walking along this track our people would tell this story of how the land was made and of what was expected of you to live in our lands to ensure that the story was told in all the lands*" (Franks, 2012, para 17i). In these terms the maintenance of the knowledge of these places and pathways and their spiritual importance is an ongoing obligation of the PCWP. Further for this obligation to be fully met individuals ultimately must "be" and "do" in this landscape. Critically for this to occur the pathways and places of importance must remain accessible and have a degree of physical connectivity that allows physical traverse across the landscape and/or appropriate reference points for the oral transmission of the linkage points between and about them. It is also clear from Scott's description that Glennies Creek, Bowmans Creek and the land that lies between them are not geographically separate features but inseparable parts of a highly ritualised and engendered landscape that was intimately known by the PCWP, with its stories being told and retold across the generations.

5.3.1e (i) The Bulga Bora Ground

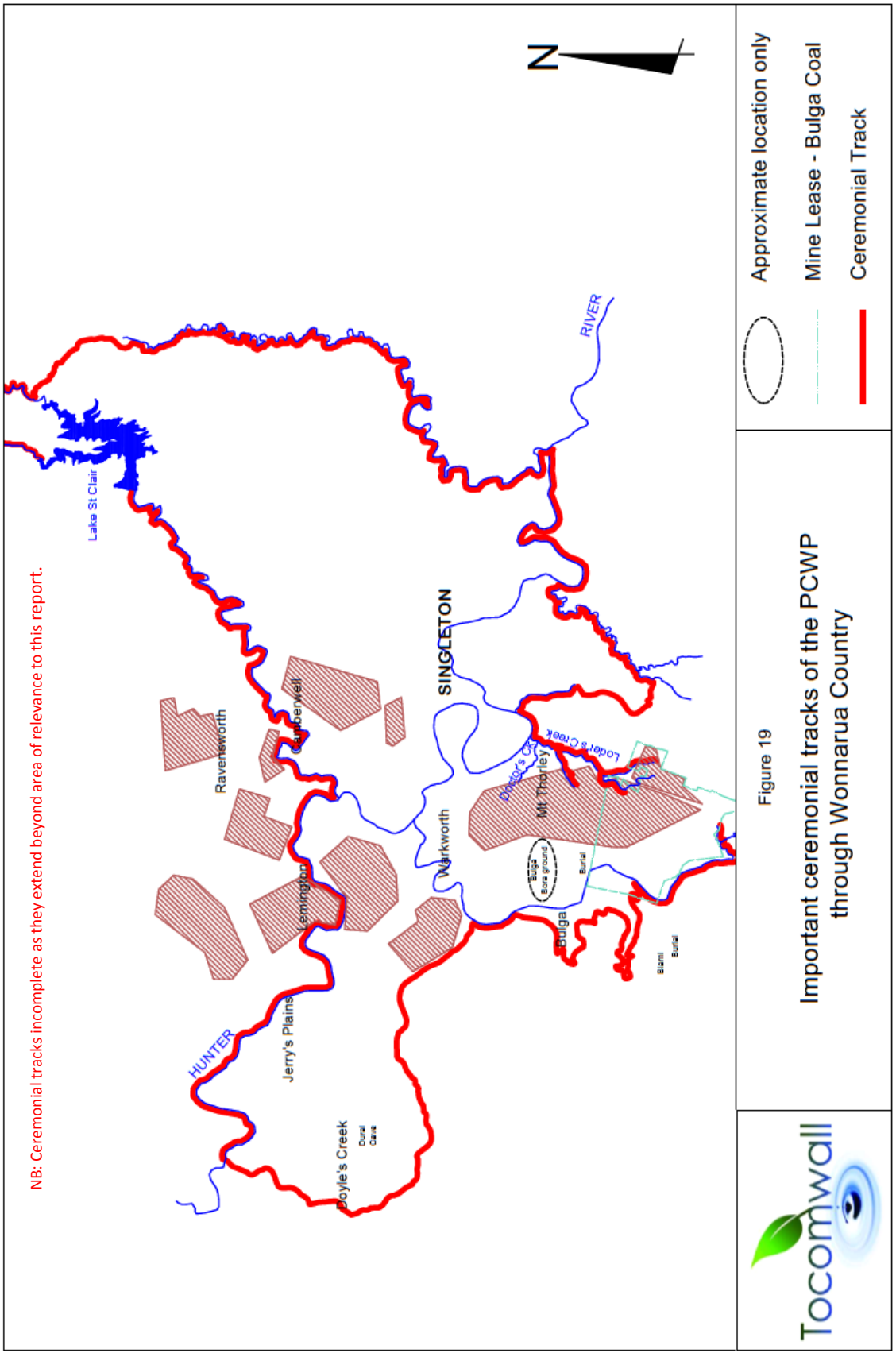
> *In 1852 the people of Bulga witnessed the last recorded Bora held in the Hunter Valley. The Bora was an aboriginal ceremony which amongst other rites included the initiation of young males into manhood…According to the local white settlers as many as six hundred warriors attended the Bora…The Bora Ground which was located in the Wallaby Scrub close to the road to Warkworth, was encircled with an earth mound and symbolically carved trees- sadly nothing remains of that ceremonial ground today* (Mitchell, 2004:41-42; see Figure 20).

Aboriginal heritage practitioners, local historians and Aboriginal community members make common reference to the presence of a former Aboriginal ceremonial ground within the vicinity of the central Hunter Valley village of Bulga (*e.g*. Eather, 1921; Bulga School Centenary Committee, 1968; Brayshaw, 2003; Mitchell, 2004). It is generally agreed that no physical evidence of this former ceremonial ground currently exists though it is understood to have been located somewhere in the vicinity of the 'Wallaby scrub' and Warkworth area (Mitchell, 2004). In a recent submission to the Land and Environment Court Scott Franks stated:

> "The area is known to have been an important gathering area for the Wonnarua and neighbouring Aboriginal groups. It was an area where initiation and marriage ceremonies occurred and where tribal disputes, trade and social gatherings were conducted. The unique ecological diversity of the area now known as the "Warkworth sands" meant that in season there was an abundance of plant and animal resources including fish within the nearby Wollombi Brook that could be used to support large gatherings of people. As a boy I was taught the importance of this area by my Uncle Clyde and his Cousin Ashley Hedges as he included it in his description of the physical route and spiritual journey/song line that my family would take from Falbrook near Ravensworth to Warkworth to attend gatherings and initiation ceremonies, especially at the "Bulga Bora Ground".
>
> (Franks, 2012b:1)

It is important to recognise that in the cultural and spiritual realm of the PCWP the Bulga Bora ground, though several kilometres away from the Glennies Creek and Bowman's Creek catchment areas, is

intimately linked to these catchments. In essence it is part of the same storied landscape from which the PCWP begin and in which they belong and persist.



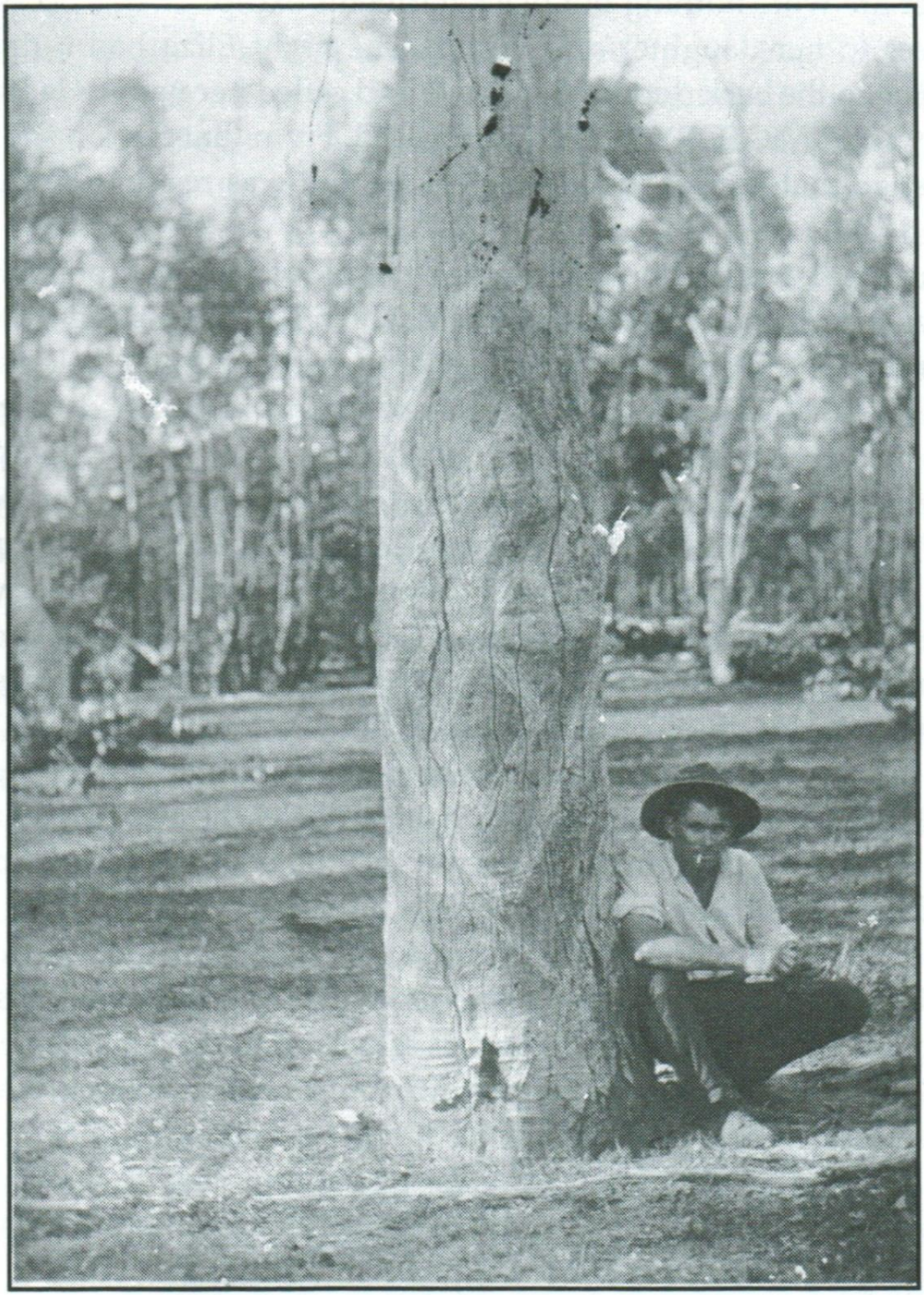


Figure 20: Image of carved tree associated with the 'Bulga Bora ground'. Image courtesy of Mr Stewart Mitchell.

5.3.1e (ii) Bettys Creek Stone Arrangement

On the 15 of May 2013 I visited this stone arrangement with members of the PCWP including Maria Stocks, Danny Franks and Malcolm Franks, as part of an Aboriginal cultural values inspection for the Mount Owen Continued Operations Project EIS. The stone arrangement is a registered Aboriginal archaeological site AHIMS # 37-3-637. It consists of large stones arranged in an arc on the south side of an ephemeral stream/gully. It is at least two stone widths high, and the opening of the arc faces to the creek.

During the inspection of this site Maria Stocks called me away from the other (all male) members of the inspection party to inform me that it was a significant cultural site, a women's site associated with birthing. During the period we were in the adjoining bush alone together, and again later in a private conversation Maria described more fully the functioning of the stone arrangement; and outlined how through her lived experiences she has become able to instantly recognise such places:

> "Mum took us out to St Clair Mission, where she showed me a special woman's place; a birthing place near the creek. It was emotional. I know of three birthing places one of which is at Betty's Creek, there is also one on Bowman's Creek and one on Glennies Creek. These are the three that were closest to where I grew up! These birthing places were always near water so that the mothers could wash. They were usually horse-shoe shaped with the open end facing the creek…Mum explained what would take place, it was quite a big ceremony…The babies would be wrapped in skins, kangaroo/quoll/possum whatever was available for the baby. Sometimes 'soap bush' or the oil from gum leaves was used to wipe off the baby; like an antiseptic. …Babies that were still borne and ones that passed away were wrapped tightly and placed in tree trunks, tightly wrapped and packed in so no animals couldn't get them. There was also a birthing woman's site where Glennies Creek met the Hunter River but I never went there."
>
> (Maria Stocks, May 2013).

5.3.1e (iii) Female Initiation sites

Although not widely acknowledged or understood, in most traditional Aboriginal society, girls underwent some kind of initiation. These rites however were never as spectacular, formalised, prolonged and/or as involving of the whole community as those associated with male initiation (Berndt & Berndt, 1998). The focus of female initiation were on rites to mark the onset of puberty, often highlighted by a physical operation. The rites usually involved separation from the round of everyday life, a social withdrawal signified by a spatial withdrawal;, a movement away from the main camp and the subsequent return to that life as an active participant but no longer of the same status as before (Berndt & Berndt, 1998). In a discussion with Maria Stocks in May 2013 subsequent to her visit to the Betty's Creek stone arrangement she advised me of the following:

> "Mum spoke of the woman's initiation site which was at the top of Carrowbrook. A woman was initiated around 16 years of age. They weren't scarred like the men, they usually just had small scars on their hips. It was a sign of being of age to have babies or get married. The young girls fasted for three days. It happened usually after first menstruation.
>
> Mum was initiated, but she hid her scars and didn't tell or show us when we growing up. We weren't allowed to see naked bodies. I found out about mum's initiation when she was telling someone else, who I can't remember. I already had 3 or 4 kids by the time I found out. My Grandma told me more about that sort of stuff then my mum. My grandma had been taken when she was young but she was initiated. I was first told about women being initiated at her house when I was a kid…

> I got my periods at her house. I didn't know the hell what they were. I was 11. Grandma took me inside and offered me some sanitary napkins – and told me that this was going to happen to me for many years to come. Then she went on to say…before she got taken away from her mumma (as she called her)…it must have been hard back in those days…she went on to tell me what happened to her and if I had been born at the same time as her, what I would have had to endure…
>
> I can describe mum's scars. I have seen them but only since she got old and frail and needed help with things. Her scars weren't like if you got a cut or things; more raised like a burn scar. As I was told sharp edged rocks were heated, wrapped in tree leaf and placed on the hips… On both mum's hips there was one scar, than another one and a third smaller scar, all parallel. The scars on mum's hips weren't very wide, they were quite thin actually.
>
> (Maria Stocks, May 2013).

5.3. 2 Contemporary social and cultural values

> *…people's sense of place, and their engagement with the world around them, are invariably dependent on their own social, cultural and historical situations.*
>
> (Ashmore & Knapp, 1999: 20-21).

Without question the intimate association of current members of the PCWP with the cultural landscape that is encompassed within Mt Owen relates to their personal understandings of their history; and derives from their own unique experiences within this landscape. Some of these contemporary social and cultural values, and the locales from which they derive are briefly described below.

5.3. 2a Home range and domestic spaces

The contemporary social and cultural values held by the PCWP in the landscape about Mt Owen derive from this landscape being within the 'field of view' of the day-to-day activities of current members of the PCWP and/or their extended families. Some of these values and the key places in which they occur are briefly described below.

5.3.2a (i) Gatekeeper's Cottage, Glennies Creek Station and associated places

The Gatekeeper's Cottage was situated immediately to the north east of the rail crossing on Glennies Creek Road (Figures 5.39, 5.40 and 5.41) approximately 3 km southeast of Mt Owen. This cottage is remembered fondly by Maria Stocks and David Foot as it was their childhood home. It was from this locale that each gained familiarity with the 'home range' of their ancestors and developed their own sense of belonging in this landscape.

In separate field trips[24] David and Maria guided Tocomwall staff out along Glennies Creek Road and told stories of the people and places of importance to them. Both of them separately indicated that they spent their childhood 'being in the land' with a freedom of movement and access to private property 'so long as they shut the gate' that saw them traverse (either on foot, horse or trail bike) much of the country in and about the Camberwell-Falbrook district. Maria described riding her horse (Figure 5.42) all about the place including: (a) up the hills passed Shadlows lane; (b) down along Dairy lane at Camberwell, through the gate into the Noble property and across to the waterholes along the western side of Glennies Creek; (c) out along the road past the Oak Park Public School to the Bowman's old place; and (d) along the old track and up into Ravensworth State Forest with her Dad and brother. She also talked about family interconnections and reiterated the story that "Aunty Flo and Aunty Gladys would often stop to put cattle in the yards and have a chat with mum and dad on their way to

[24] For logistical reasons only.

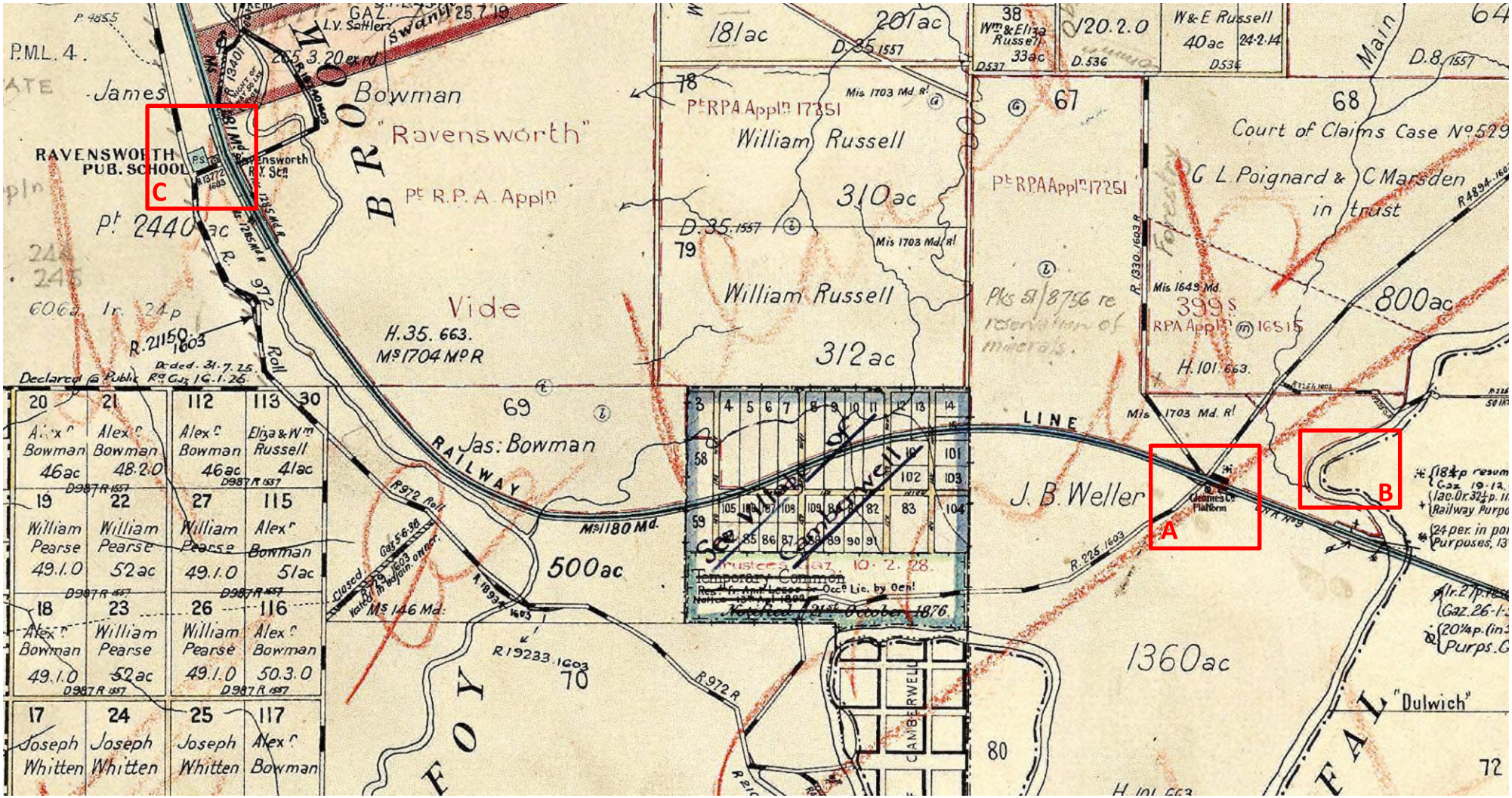


Figure 5.39. Enlarged excerpt from the 1923 Edition of the Map of the Parish of Vane indicating places of social and cultural value to contemporary members of the PCWP. A= Glennies Creek Station Platform and locale of the Gatekeepers Cottage that was the childhood home of David Foot and Maria Stocks; B= The location of one waterhole where Maria Stocks and David Foot went swimming with family and friends; C= The location of Ravensworth Public School, the non-Aboriginal father of David and Maria Foot attended this school as a boy (Source: http://lpi.nsw.gov.au [historical map viewer interface, 2013]).



Figure 5.40. Glennies Creek Road Rail Crossing, March 2013 (Image, Maria Cotter).



Figure 5.41. David Foot noting down his recollections of the location and form of the Glennies Creek Station Gatekeepers Cottage that was his childhood home (Image, Maria Cotter, March 2013).

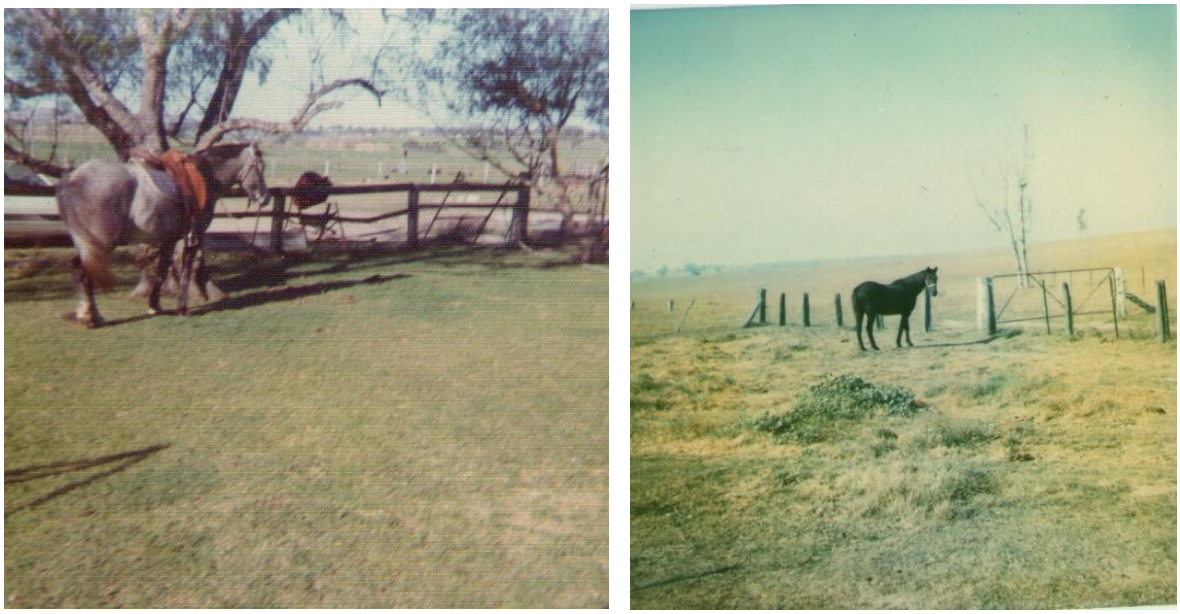


Figure 5.42 Two images provided by Maria Stocks of the horses she rode throughout the Falbrook, Ravensworth, Glennies Creek and Camberwell districts in her childhood. The horse paddock(s) indicated were across the railway line to the south of the Gatekeepers Cottage at Glennies Creek Station (Source: Private collection of Maria Stocks).

and from the markets at Muswellbrook" (Maria Stocks, *pers. com*, 2012).

David also explained that the cottage was right next to the Glennies Creek Station Platform and that the trains would make things rattle as they went passed, although it never bothered them. David and Maria's Dad was a fettler on the railways and the cottage was a railway house. Maria further explained that there were no gates on the crossing in those days but when the steam trains pulled up alongside the platform for water their mum and dad would help fill it up "and mum usually had a cup of tea and cake ready for the workers as well, that was just mum"(Maria Stocks *pers com*, 2013).

David and Maria also spoke of and/or pointed out a number of nearby landmarks and places of intimate association with their childhood including: (a) the big gum tree at the intersection of Forest Road and Glennies Creek Road under which they waited to catch the school bus into town (Singleton) (Figure 5.43); (b) another waterhole on Glennies Creek where they would have family picnics and go swimming with their cousins (Figure 5.44); (c) the nearby church where Maria Stocks and her neighbours the Spinks' would play games such as 'getting married' (Figure 5.45). Maria described this place as being 'a cubby house for us that just happened to be a church'. It was used once a month for Church Services hence they would have to make sure they tidied the place up after their games. Otherwise it was generally available for them to play in; and (d) the grave of Bernard Fox a sheep overseer on Ravensworth who was murdered in October 1847 by a ticket-of-leave holder, Charles Cooper (See: *Maitland Mercury & Hunter River General Advertiser*, Saturday 30 October 1847) (Figure 5.46). This grave is situated in a raised vegetated buffer above Glennies Creek Road that borders the Ashton Open Cut Coal Mine about 2km west-southwest of the Gatekeeper's Cottage. Though nothing further has been substantiated Maria Stocks stated that she thought there had been Aboriginals buried in unmarked graves in close proximity to this grave site.



Figure 5.43. A Large Gum tree at the intersection of Forest Road and Glennies Creek Road. Maria Stocks and David Foot both described this tree as being the location of their school bus-stop' (Image, Maria Cotter, 2013).



Figure 5.44 Maria Stocks her brother David and their cousin swimming in a waterhole in Glennies Creek as children (in the 1970s). This water hole was situated about half a kilometre from where they lived in the Gatekeepers Cottage, and it was accessed from down the back of their place (Images courtesy of Maria Stocks).



Figure 5.45. This now disused church on Glennies Creek road was a place of adventure and play for Maria Stocks and her next door neighbours the Spinks' when they were children (Image, Maria Cotter, April 2013).



Figure 5.46. The gravesite of Ravensworth Estate sheep overseer Bernard Fox situated adjacent to Glennies Creek Road near Camberwell (Image, Maria Cotter, March 2013).

5.3.2a (ii) Mt Olive

As described in Section 5.2.1g William 'Billy' Smith acquired land near Mt Olive in the 1890s and this was retained and/or occupied by several of his descendants until the 1990s when his grandson Claude Franks relinquished the property due to poor health. More recently the eldest son of Claude Franks, Charlie has re-acquired land at Mt Olive which many members of his extended family visit to fish, shoot and enjoy access to Glennies Creek. Figure 5.47 is drawn from the recollection of Scott Franks and outlines his knowledge of the occupation of the area about Mt Olive by members of the PCWP, particularly throughout the period of his father's ownership of Mt Olive. These are the fondly remembered familiar domestic spaces of his extended family (Figures 5.48 & 5.49).

It is clear that the continued use and occupation of this land at Mt Olive for such a considerable period has enabled the PCWP to transmit traditional cultural knowledge on their 'Country' from prior to first sovereignty through to the present. Moreover, as Scott Franks has recently explained, the occupation of land at Mt Olive gave him and his extended family ready access to the wider landscape during his childhood:

> "My Dad and his brother would help all the property owners up and down the creek [Glennies Creek] and the Bridgman area. This was just a normal thing that would happen. As a result of that I can say as a boy I could go anywhere at any time and have never been challenged about going on any properties to hunt and fish. I would, if taking a rifle, let the property owner know so I could find out where people were on the place to make sure no one got shot, and in most cases the property owner would tell me if he had any problems with dogs or foxes. I recall that Mr Jackson gave me $20 and a box of .22 bullets for tracing down a dog that was getting stuck into his sheep.
>
> Dad had a TEA 20 Tractor and a Ransom… I recall the Ransom was used on several farms around the district to plough in-between the corn furrows. I went with Dad one day to old Mrs Shearers place to help as a heap of her sheep got struck by lighting and we helped her pick them all up and burn them so dogs would not come around and kill the rest of her sheep. I recall she had a write up in *the Singleton Argus*…
>
> All through that area I would trap 'Double Bars' [finches] and I would sell them to the manager at the Singleton Co-Op for $2.50 a pair."
>
> (Scott Franks, August 2013)

One consequence of this wide association of members of the PCWP with people and places in and about the Glennies Creek Catchment area is the strong personal associations made. Scott franks has explained one unique such personal association which draws out yet another historical association with the broader landscape that is of special Aboriginal interest:

> "Jim Wilkinson was my Godfather, he lived at the top of Carrowbrook at the head of Glennies Ceek beneath Mt Royal. His proper name was James St Clair Wilkinson. Jim was born in the back of a sulky on the road at St Clair hence the middle name. His uncle was John Wilkinson, John was the man that shot Joe Governor., Jim would often tell us that his Uncle John and his family looked after the 'Governor Boys', Jo and Jimmy. I was told that Jo married a white woman over near Karuah and all was fine until he came home one day and found his wife had been raped and killed. The Governor boys then went on a killing spree. The 'Governor Boys' made a run for the Hunter and hid with the blacks in the Hunter and for some time the boys just vanished. Rumours would start up and down the creek all the time, Dad would tell us and the farmers would get scared but because one of the 'Governor Boys' had a 10 thousand pound bounty, some of the farmer's would try to get them. Some nights the farmers would shoot their own livestock thinking it was the 'Boys', Dad told us that there was plenty of meat to go around up and down the creek. But Jim told us that his Uncle John hid him and when the reward went up he shot him. Jim did give me a dilly bag years ago, about twelve months before he died. In the bag was a skull and a stone axe. Jim told me that the bag was taken from Joe Governor and the skull was from the man that raped his wife. I told Jim he could keep the skull and I Kept the Axe. Jim did tell me that he threw the skull over a precipice at the back of his property, he also told me that once he got rid of it his house 'stopped walking at night.'"
>
> (Scott Franks, August 2013)

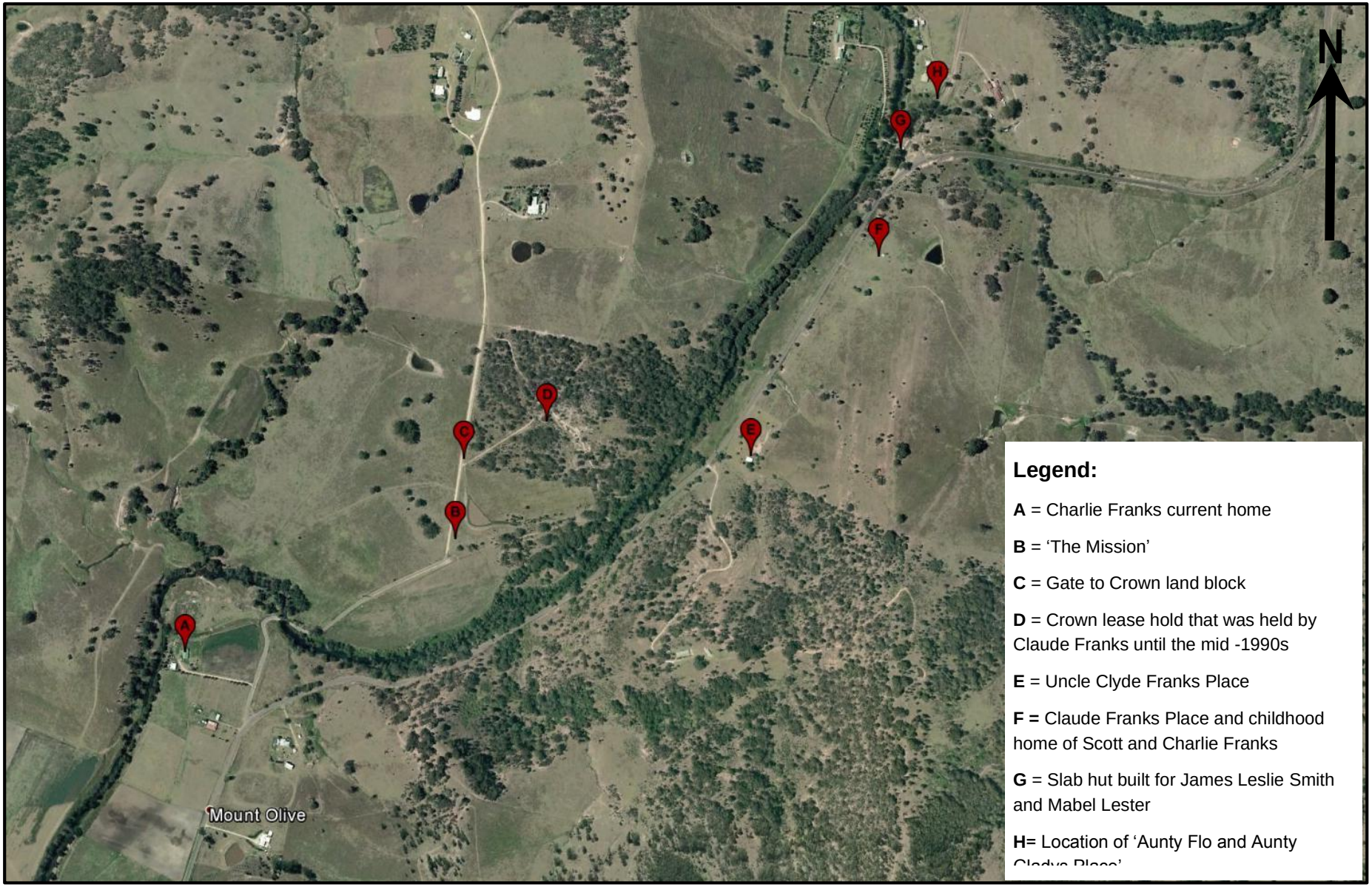


Figure 5.47: That portion of Glennies Creek within the Parish of Gotha, County of Durham intimately known by William Billy Smith and his Franks family descendants.



Figure 5.48: Slab hut built by Charles Henry Franks and his wife Sarah on their property at Mt Olive for James Leslie Smith and his partner Mabel Lester. This was situated at location G in Figure 5.47 above.



Figure 5.49. Sarah Franks (nee Smith) and Charles Henry Franks at Mt Olive. Image date unknown but estimated to be in the 1940s (Original image held in Franks family private collection, used with permission).

5.3.2a (iii) Mt Pleasant School

Mt Pleasant Public School (Figure 5.50) is situated in close proximity to the Bridgman Anglican cemetery on Goorangoola Road and hence also lies about 6.5km east of the North Pit at Mt Owen. It was officially opened in May 1880. Many current and deceased members of the PCWP commenced their schooling at this public school. For example, a 1907 Registration List of school age and younger children at Mt Pleasant School is provided at Table 5.3. It includes the names of several members of the Smith and Lester families who were either attending or scheduled to attend the school at this time. Le Maistre (1996) makes a point to indicate that the addresses of these families was not generally associated with the nearby St Clair Mission. In this regard it is pertinent to note that in November 1909 a former teacher at the Mt Olive School wrote in support of a Mr J. Smith becoming a tenant in the original Mt Pleasant School house which was for rent (Le Maistre, 1996:86). The text of this letter went as follows:

> "Sir,
>
> I have the honor to state that Mr Smith who has tendered to become a tenant of the Dept. Pub. Instruct. At Mt Pleasant, although a half caste, is a quiet, industrious, clean & respected man & his family are similarly esteemed. Should be succeed in becoming a tenant I have every reason to believe that he will fulfil his agreement in a straight forward manner, Mr Smith has one child attending school.
>
> I have the honor
> To be, Sir
> Yr obedient servant
>
> A Hughes
> T/cher
>
> (A Hughes, Teacher cited in Le Maistre, 1996: 86)

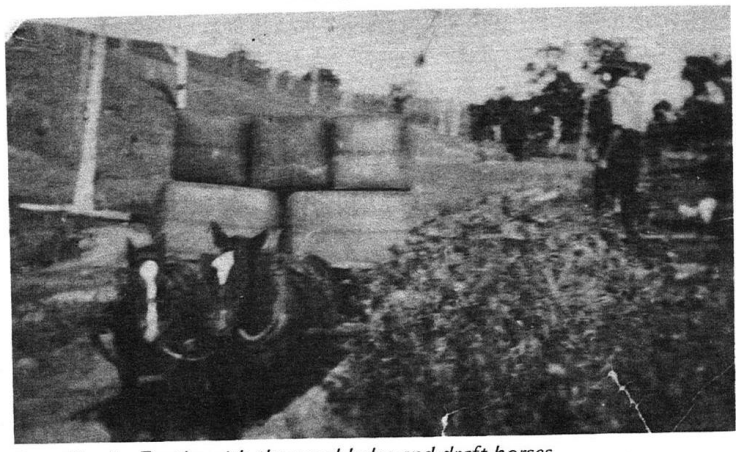
Le Maistre (1996: 86) goes on to confirm that Mr Smith was successful in his application and on 19 November 1909 signed an agreement to pay a rental of ten shillings per month for the School house. From Table 5.3 we can assume that it is Mr John Smith who has applied for the tenancy of the School house as he is the only J Smith with only one school aged child. John, like the also listed James Smith, were sons of Mary Lester (nee Smith).

In addition to these early associations Mt Pleasant Public School has been attended by current members of the PCWP including all six children of Claude and Alma Franks during the period from the late 1960s to mid-1980s. Indeed, in a book titled "*Two Valleys: the big post that turns people to either of the two valleys"* compiled and published by Mt Pleasant Public School in 1988, as a contribution to celebrate the Bicentenary of Australia, several historical photographs (*c*. 1940s) of the Franks family and their farming activities near Mt Olive were included (Figure 5.51). Likewise in a discussion of the farming enterprise 'Scrumlo' this Mt Pleasant bicentennial compilation outlined how Charles Franks had worked as a manager on this property for an unspecified period of time sometime between 1924 and 1928 (Mt Pleasant Public School, 1988, p.48). It is clear that the Franks family were recognised as being a clear part of this local community, and for some time.



Figure 5.50. Mt Pleasant Public School Goorangoola Road Bridgman (image Maria Cotter, March 2013)

Farming Montage



1. *Charlie Franks with the wool bales and draft horses.*



2. *Getting in the crop at Franks.*

Figure 5.51. Two of the six images comprising the 'Farming Montage' produced on pages 50-51 of the bicentennial compilation by Mt Pleasant Public School titled: *Two Valleys: the big post that turns people to either of the two valleys"*. Both of the images relate to horse-drawn farming activities on the Franks farm at Mt Olive.

Table 5.3. Mt Pleasant School Age Children 1907 (after: Le Maistre, 1996, p.85)

Parent /Guardian	Children	Age in 1907	Parent/Guardian	Children	Age in 1907
W.H. Andrews	Harold Victor	2 years	**D. Hamilton**	Janet	9 years
	Athol Henry	4 months		Andrew	5 years
P.J Andrews	Maxwell	4 years		Malcom	5 years
	Stuart	5 years	**D. Richards**	Doris	3 years
E.T. Lester[1].	Augustus	13 years		Alma	2 years
John Smith[2]**.**	Joseph	11 years		Simon	9 years
E.A Andrews	Daphne Edna	1 year		Harry	6 years
T.E. O'Bryan	Eric John	6 years	**J.A. O'Bryan**	Milton, Oswald	4 years
	Stella Muriel	3 years		Glentwaren, Leslie	9 years
James Smith[3]**.**	Henry	12 years		Melville, Mathew	5 years
	Mary	10 years	**Martha Goadsby**	Malcolm Allen	5 years
	Herbert	8 years			
	Caroline	6 years			
	Leslie[4].	4 years			
	Rene	1 years			

[1]. Edward Lester married Mary Smith eldest daughter of Matilda Hughes and James Smith. In an article that appeared on page 8 of the *Singleton Argus* on Saturday 24 April 1915 (source:http:nla.gov.au/nla.news-article80168015), Edward is referred to as a 'half-caste aboriginal labourer.'
[2]. Son of Matilda Hughes and James Smith
[3]. Son of Matilda Hughes and James Smith
[4]. James Leslie Smith, grandfather of Maria Stocks and David Foot

5.3.2a (iv) Glennies Creek

Glennies Creek (Figure 5.52) is an important and inseparable feature of the contemporary values expressed by the PCWP in that part of their cultural landscape to which Mt Owen is integral. Glennies Creek lies to the east of the Mt Owen Project Impact Area (i.e. about 3km south east at its closest point) but its cultural value to the PCWP is critically influenced by the deleterious effects of mines such as Mt Owen on all neigbouring creeks including Bowman's and Betty's Creek. Moreover it remains a substantial visual landmark that has been a constant in the everyday 'field-of view' of the PCWP.

As recently described (Cotter, 2013) Glennies Creek is multivalent with respect to its character, meaning and value to contemporary members of the PCWP. This multi-valence derives from:

- Its dreamtime origins and the abundances provided within and around it by Biami;
- Its duel functioning as a secular pathway and a ceremonial dreaming track;
- The Aboriginal archaeological resources that lie in its close proximity and which provide for the PCWP tangible links to the footpaths and lifeways of their ancestors;

- Its proximity to places of colonial and post-colonial activity (e.g. Ravensworth, Bridgman and Camberwell) that have been afforded documentation in the historical record and thus allowed for the affirmation of the PCWPs uniquely Wonnarua Cultural Identity;

- Its historical and contemporary values as a place of resource exploitation, cultural teaching and/or recreation;

- Its association with a longevity of cultural activism by the immediate, past and ancestral members of the PCWP including their long-term expressions of custodial responsibilities for it and the physical environment through which it flows; and

- The relative continuity of its bed and channel morphology, its flow regime, and its grassy floodplain.

Each of the values described for Glennies Creek are especially heightened for the PCWP by the fact that other nearby creeks such as Bowman's Creek and Betty's creek, which lie within Mt Owen, have been substantially altered by mining activity. Although dammed at its source, the PCWP consider Glennies Creek to be the last relatively intact creek and dreaming track within the mining precinct that exists between Singleton and Muswellbrook.



Figure 5.52. Glennies Creek, May 2013. Image taken from 'Glennies Creek Bridge' looking up-stream (Image Maria Cotter, May 2013)

5.3.2b Livelihood and economic values

It cannot go unrecognised that part of the modern lived experience of the PCWP is to have values and/or associations with the Project that result from participation in various paid employment within the area. In a conversation held with Charlie Franks last year the nature of this association and the

consequences of it for him and his immediate family were outlined. He did so by providing some essential background as to the character of his upbringing:

> "My grandfather Charles Franks (I'm named after him) bought the property 'Mt Olive' from the money he earned shooting dingoes and getting money from the government bounty on the dingoes, and from selling their pelts. He also sold rabbit skins. He was six-foot-six and had a team of bullocks that he used to cart farm produce. He passed away in 1960 at the age of seventy two. His wife Sarah Ann died in December 1962 and she was sixty eight.
>
> My dad inherited that property and I spent an awful lot of time when I was growing up working on it with my dad. I was the eldest and so I started work with Dad early, at about the age of 13. I didn't get much formal schooling but learnt a lot from my Dad on the farm. Dad was a real hard worker and he showed me how to fence and how to shoot. We would shoot and skin 'roos' and foxes and trap and skin rabbits. Dad taught me how to skin an animal without using a knife. If we weren't shooting animals we would be fishing.
>
> Dad would eat lots of bush tucker; he was forever eating anything out of the bush. About trying things in the bush he always said that you should 'put it in your mouth. If it stings or tastes foul spit it straight out'. When I was out with dad we would get 'roos, possums, grass parrots, galahs and cockatoos. He would show me how to get them, skin or pluck them and prepare them for eating; and then I'd have to do it myself. This getting me to do it things was always how Dad taught me stuff. When we had some, we would wrap food in foil for cooking or sometimes we would use the clay from the river bank especially for cooking birds and fishes. I didn't always like the things we cooked… I'm a modern 'coon'.
>
> Dad taught me how to look after the land, look after landslips, and how to encourage the land so that animals would come back. Up on the creek near our place, it's all overgrown now, but there were fish traps carved out of the rock. Dad showed me how they worked and how to put the rocks in them to catch fish. We used to get mullet, perch and fresh water sprat. I know sprat's are still in the creek 'cause I've caught one. Dad also showed me how to make fish traps. He said he used to make them out of the reeds but he showed me how to make them out of the strappy branches of the willow trees. The traps can't be too big or too small. When I was a kid I knew all the good fishing holes along the creek.
>
> Charlie Franks, July 2012.

Malcolm Franks (Charlie's Brother) also has had prior paid employment within the Project area. The following is an excerpt from a statement Malcolm provided to the Project Team in September 2012 about his attachment to the Bulga-Broke area:

> Much of my recreational time was spent travelling around the area encompassing Mt Olive to Broke, with my family and friends. These times were spent hunting, fishing and camping and being show both the 'traditional' and 'modern' ways of existing with the native flora and fauna. I also spent time working on the land with my father, Claude Franks, and his extended family, doing odd jobs for the neighbouring properties throughout the valley. Some of these were fencing, creating fire breaks and trails. I enjoyed the time I spent working with my father and uncles and aunties and listening to the stories passed down to them when they were younger. This gave me a greater understanding of my heritage for example Grandfather Franks paid for our property by shooting Dingoes and wild dogs all over the valley.
>
> Malcolm Franks, September 2012

A job that Claude Franks undertook in the early days was baiting and trapping rabbits, especially during plague periods. He did this up until the mid-1950s when subsequent to the introduction of myxomatosis (the *myxoma* virus) there was as dramatic reduction in the rabbit population. Like other rural pest eradication jobs this was another job that was undertaken by the Franks family throughout

the valley; and which provided them with continuity of access to their ancestral lands. Scott Franks recalls the following with regard to his dad Claude baiting rabbits:

> Dad and my uncles were allowed to obtain Strychnine in the early day to control the rabbit plague. Dad told us that he used to mix it with scotch thistle roots and leave it near a rabbit warren and then keep a keen eye on it. He did this because, as he explained it, once the rabbits ate the thistles he would watch them to see where they would go because as soon as they drunk any water they would drop dead. He would then gather them all up and burn them. The reason he burnt the rabbits was to prevent any other animal eating them as it would poison them too. He was always mindful of what it could kill. As he would say if the rabbit died a wedge tail would see the dead rabbit, eat it, and then die. A fox or dingo would then eat the eagle and die too and the cycle of death would continue. I recall dad showing us photos of the rabbit plague in the early days our house at My Olive had a fence around it and the fence could not be seen for all the rabbit skins hung on it to dry out. Dad and my uncle were always called on to poison the rabbits as back then only certain individuals were allocated the poison as it was very expensive.
>
> Scott Franks, October, 2012

Other contemporary livelihood values held by the PCWP in the Project area and its surrounds include those that directly derive from paid participation in Aboriginal archaeological investigation and salvage works within the Project area and surrounds. With the introduction in January 2005 of "*Draft Guidelines for Aboriginal Cultural heritage Assessment and Community Consultation"* (DEC, 2004) members of the PCWP have been able to become parties to Aboriginal cultural heritage assessments by formally registering their interest in the area under investigation. Since this time PCWP members have done so through various Aboriginal organisations including Yarrawalk and/or Yarrawalk Enterprises (Franks Family), Ungooroo Aboriginal Corporation (Ward/Taggart Family); and Wonnarua Custodians (Foot Family); and including the Wonnarua Aboriginal land Council. In various stakeholder capacities the PCWP membership have previously been contracted to participate in paid field work, salvage excavation and site remediation work within the Project area[25]. The membership of the PCWP acknowledges that the generally short term but relatively lucrative payment schedules that have been associated with these contracts have proved a reasonable source of casual income to the PCWP.

The PCWP does not, however, consider that the income generated by this archaeological assessment work has been cost neutral. The primary reason for this lack of cost neutrality stems from the fact that it is work associated with EIA and it is therefore part of a process that is designed to facilitate development (albeit within legislated limits of acceptable environmental harm or risk) and generally results in the loss of *in situ* Aboriginal heritage from within the development impact zone (albeit a loss that is lawful and mitigated by the terms of an approved AHIP). Moreover, in the blunt assessment of the PCWP, participation in Aboriginal archaeological assessments has been more broadly embraced by the general Aboriginal community as a "fee-for-service" with the main driver for participation being the potential to earn $600/day wandering about in the bush. This is considered to be especially egregious to the PCWP when those who are taking part in this type of field work have no traditional or historic connection to Wonnarua Country. In contrast, the PCWP maintain that their involvement is an obligation encumbered on them as traditional custodians of Wonnarua Country and the short-term money provided is not recompense for the loss of their heritage. Further as these types of Aboriginal archaeological assessments yield only short-term money the PCWP consider that the work provides no secure, long-term and ongoing economic or social benefit to them or the wider Aboriginal community.

[25] The Late Barbara Foot and her son David were, for example, closely involved in the Aboriginal cultural heritage management works associated with the Yorks Creek Catchment Enhancement Project in the mid-to late 1990s.

A final livelihood value briefly acknowledged here is that for a time Maria Stocks worked on both Glendell and Mt Owen in her capacity as an employee of a contract cleaning business. She did this work for a couple of years until a back injury made it impossible to do so.

5.4 Aesthetic values

There is not one 'aesthetic' that can be assigned to the Project. The aesthetic quality of objects or places result from the engagement of the individual or group with them via one or more of the five senses (*i.e*. touch, taste, smell, sight, and hearing) they are highly subjective and frequently changeable. Hence the aesthetic values described below are only those recognised for the Project by the PCWP during the fieldwork and allied consultation component of the current study. Specifically they are those values recognised for the Project via the participant observation of the Tocomwall Project Team in the Aboriginal cultural values field survey and assessment; and those determined via formal and informal enquiry of other PCWP members regarding their knowledge of the Project. Note too that the aesthetic values described here for the PCWP are not exhaustive but rather are illustrative of the range of such values that are ascribed to the Project by the PCWP. Where applicable the aesthetic values described are examined with reference to specific elements of the Project where one or more other Aboriginal cultural values have also been identified. As a focus it is pertinent to reiterate the statement of Scott Franks included at page xiii of this report in which he states:

> 'When I was on site conducting the walk over it was like someone had just plugged me in to the power network, once my feet hit the ground all the memories came flooding back. It was challenging to say the least to stand there and contain what I was thinking, feeling and smelling. The simple smell of the 'bladey' grass as we walked through it, brought back memories of all the times me and my uncle walked the lands of our people and me being told the stories of what this land means to me, the sight of a grey 'roo' make me think of the hunting, the pets I had as a boy and sharing'.

5.4.1 Positive aesthetic values

Those aesthetic aspects of the Project identified to have positive qualities by the PCWP are described below. Wherever possible the qualities described are illustrated with examples obtained from Mt Owen. The scale at which the value can be/is ascribed to the Project and/or its component parts and/or the cultural items and places within it are also outlined. It is worth mentioning that there are particular elements of the mined landscape that speaks of the scale and ability of human ingenuity that are perhaps universal positive aesthetics of this industrial landscape. These universal aesthetics are reflected for example in the immense size of the voids formed by open-cut mining; in the large scale of excavation equipment and loading trucks; in the size and number of coal loads hauled on coal trains; and the scale of rock dumps and coal washery infrastructure that may be encountered across a mine site. These 'positive aesthetic values' are, however, ones that systematically compete with the cultural landscape values of the PCWP, and are therefore acknowledged but not considered here in further detail.

5.4.1a Individual artefacts

At the scale of individual artefacts the PCWP express the view that that those that have an identifiable form have a positive aesthetic. Many of the Aboriginal objects encountered in the Project Area clearly had aesthetic values that were visual in character and related to the colour, lustre and homogeneity (or otherwise) of the raw material from which they were made; as well as to the shape and size of the manufactured artefact; and including evidence of the repeated attention to detail given to the object

by its maker (*e.g*. level of retouch, number of flakes removed etc.) (Figure 5.53). It is notable in this regard that it appears some of the more distinctive tool types have previously been removed from Mt Owen as part of prior salvage works suggesting that the overall aesthetic value of both individual artefacts and artefact scatters has been compromised/fragmented (*e.g*. Umwelt, 2012). Many of the aesthetic values of individual artefacts are demonstrably tactile such that probable ground-edged artefacts were picked up by members of the PCWP, held in the hand to feel their weight and to grasp them as/and consider they might be held if they were to be used as a tool.

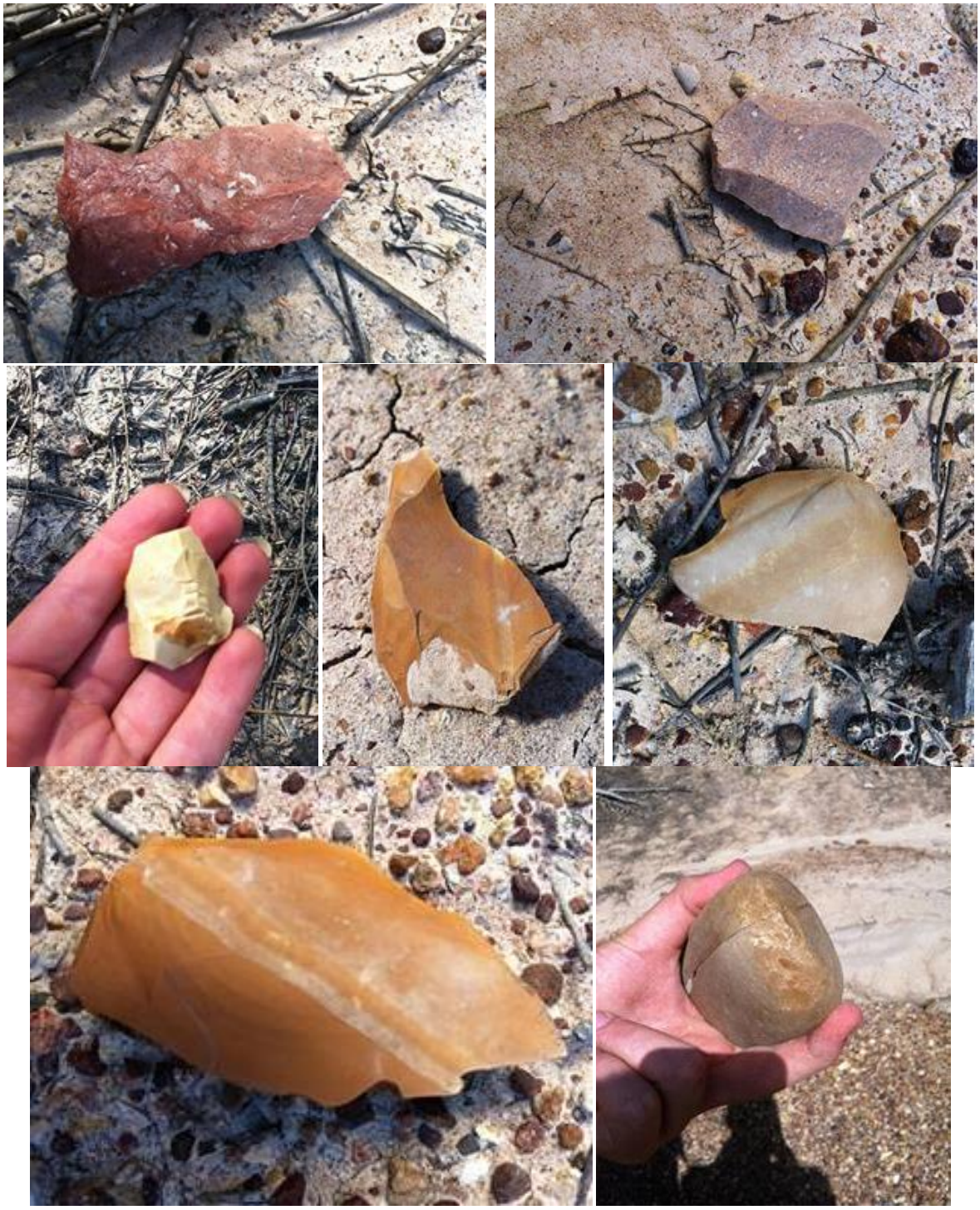


Figure 5.53 Artefacts observed by members of the PCWP during survey and/or test excavation of the Project area (Images, Jennifer Norfolk).

5.4.1b Artefact scatters

All artefact scatters have a positive aesthetic for the PCWP particularly as visual markers of the prior use of the landscape by their ancestors. In general the size, distribution and content of each artefact scatter variously contribute to the overall aesthetic value it retains.

5.4.1c Flora and Fauna

The positive aesthetic values of the fauna and flora within the Project area are not easily categorised They are values that are potentially as diverse as the number of species known for the Project area; and as variable as the seasonal and daily weather conditions that may affect the aesthetic of each species. Further, the aesthetic values of any item or place are highly personal and subjective (Brown, 2010) and like the photographs within this section highly dependent on the composition or framing of the subject and on the perspective from which it was taken. Hence what is presented here are only examples of the range and type of aesthetic values that some members of the PCWP ascribed to the fauna and flora of the Project. The aesthetic values noted are therefore only those identified as the fauna and flora were encountered in the field or/as later observed third-hand from the digital photographs taken during the field survey.

The colour and form of animals such as goannas was recognised as an aesthetic value that enabled these species to blend in and/or be camouflaged within their surroundings (Figure 5.54**)**. Several of the animals encountered across Mt Owen were picked up and/or intently watched by members of the PCWP. These tactile and visual responses were subject to the particular knowledge and experience of the PCWP with regard to the species. The textural qualities of tree bark were variously commented on, particularly as this quality was identified as being of importance to the utility of the plant species. This was reported, for example, in the case of She-oaks along Bowman's creek and various *Eucalypt* species encountered across the Project (detailed description of some of these utilitarian values has been previously documented for the PCWP [i.e. Tocomwall, 2012a].



Figure 5.54 A well camouflaged goanna encountered in the understorey of the roadside vegetation found along Forest Road, at the approach to the southern boundary of Mt Owen (Maria Cotter, March, 2013).

Special mention must be made too of the specific aesthetic importance of the Wedge tailed eagle in the affirmation of the cultural landscape values of the area for the PCWP. In expressing some of his observations of the cultural values of another Glencore operation Danny Franks has previously stated that:

> "I saw Wedgetail eagles circling the area within the optimisation project and even saw nests on the site. These birds of prey are extremely important spiritually, being expressed in dreamtime stories and I'm constantly reminded that they are 'the' Wonnarua totem and to have respect for this bird. It isn't hard to have respect for an animal you see adapting to an ever changing environment and scenery and still being a top predator. It feels as though we're not that different at times and by that I mean adapting to the ever changing scenery. It's important as I know ancient elders took their time to study and respect this bird and I can see why."
>
> Danny Franks, August 2012 (cited in Tocomwall, 2012a, p.87)

Wedge tailed eagles are recorded for the Mt Owen area (Hunter Valley Coal Corporation, 2003, p.98) For the PCWP this bird *is* the eyes of Biame. Hence each and every time the bird is observed in the sky the spiritual, ancestral and physical realms of the PCWP are merged as one.

5.4.2 Negative aesthetic values

Some aspects of the Project identified to have negative aesthetic qualities by the PCWP are briefly described below. Wherever possible the qualities described are illustrated with examples obtained from Mt Owen and its immediate surrounds. The scale at which the value can be/is ascribed to the Project and/or its component parts and/or the cultural items and places within it are also outlined. The qualification is made here that in general, and as is frequently described by the PCWP, mining is considered to be wholly intrusive and negative in its aesthetic consequences. For example in the recent statement to the Native Title Tribunal Maria Stocks recounted the following with respect to mining and its impacts on Wonnarua Country:

> …my family has always identified as Wonnarua. We have always valued, and respected our land, our heritage and our identity. For me and my family the land is not ours but a gift given to us to use because everything comes from the land. We have been brought up and taught to believe
> that we were fashioned out of the earth and to the earth we will return. When Anastasia and Jeremiah (my two youngest children) were about eight I took them for a drive to show them about Glennies Creek where I grew up, rode horses and motorbikes and went fishing. When I got there I just gasped and went "Aargh" because there was nothing there. It was all gone. There was big hole from mining. I sat there and tears rolled down my cheeks. I couldn't show my children anything. It was like a part of me had been deleted.
>
> (Stocks, 2012, para 7).

In this context the negative aesthetic values that are briefly described and illustrated below are confined to aspects of the mined landscape of the Project and its surrounds that have a particularly deleterious effect on components of the cultural landscape of the PCWP.

5.4.2a Man-made hills

The single most remarked upon negative aesthetic of the mined landscape within and about Mt Owen is the physical change in the land and landforms of the area. In particular, it is the development of 'man-made hills' especially where these are long, flat-topped and still bare-earthed (Figure 5.55 & Figure 5.56).



Figure 5.55 Above: close up of artificial hill/ bund associated with Ashton Coal Open Cut Mine approximately 2km South of Mt Owen. This image was taken in the company of David Foot in March 2013 from the vantage point of his childhood home "The Gatekeeper's cottage' adjacent to the current Glennies Creek Railway crossing. David was clear to point out that this hill had not existed in his childhood; and that it was unnatural. Below: A view of this same man-made hill taken further north along Glennies Creek Road adjacent to the property Sydenham. It is the striking difference between the flat farm land in the foreground that makes this 'hill' so unnatural and out of context with any of the PCWPs prior experience and/or recollection of this landscape (images Maria Cotter).



Figure 5.56 Image taken from Glennies Creek Road near the property Sydenham facing northwest towards Mt Owen. The bare and flat-topped hill in the background is part of the negative aesthetic of open-cut mining that the PCWP finds difficult to reconcile with their long understanding of this area as a flat to undulating grassy valley (Image Maria Cotter).

5.4.2b Betty's Creek Diversion

The negative aesthetic values of the Betty's Creek Diversion are complex. They are attributable both to the visual impacts of prior salvage and removal of artefacts from the location; the effects of erosion and/or Casuarina regrowth in parts; and the physical change in channel flow as a result of the diversion. But most importantly for the PCWP the mere knowledge that the creek has been diverted has created for the PCWP a sense that the 'creek is stuffed' which emerges from their understanding that the original form in which the creek was emplaced by Biame has been irrevocably changed. Its connection with the physical and spiritual landscape of the ancestors has been forever negatively impacted. It is in fact this extreme alteration of creeks such as Betty's Creek and Bowman's creek that has enhanced the cultural value and importance of the nearby Glennies Creek (see Section 5.3.2a (iv)).

5.4.2c Signed sites of 'non-disturbance'

Though not especially common, some sites that have been retained within the wider Mt Owen Complex - including the Betty's Creek stone arrangement - have been compromised by a passive approach to their up-keep in which the only ongoing management of the site appears to be that a sign has been placed adjoining them requesting that they not be disturbed (Figures 5.57). This signage is problematic in that it offers no boundaries to the site(s) and hence makes practical enforcement of the non-disturbance by Mt Owen staff and others difficult. Likewise, and in the particular case of the Betty's Creek stone arrangement, this passive 'out-of site-out of mind' approach appears to have resulted in deterioration of the site as a result of unchecked erosion. If any archaeological site(s) or place(s) of value identified during the current survey and assessment of Mt Owen are to be preserved *in situ* then attention to their ongoing management including any erosion within their vicinity is an obvious requirement.



Figure 5.57. Archaeological sites signed with notices requesting non-disturbance. For the site on the left, which occurs in the Project Impact area prior salvage and removal of artefacts in its vicinity has made this sign redundant. For the site on the right – The Betty's Creek stone arrangement (and also refer to Image on the Front Cover of this report) – although not in the impact zone of any current of planned future mining activities, it has been left to deteriorate via natural erosion without any preventative maintenance or upkeep (Images Maria Cotter).

5.5 Scientific Values

5.5.1 Archaeological values

Central to the deliberations of Aboriginal people today with regard to the cultural significance of an item or

> *place is consideration of the duty of care they owe to the material culture, as a manifestation of their ancestors, spiritual entities resident in particular areas or mythical hero figures, and to the area as a whole, recognising they are being watched by their ancestors, spiritual entities and hero figures. Indeed, as Aboriginal field researchers often note in the course of fieldwork, they are aware they often are being observed by the 'old people' when they are in the field* (CQCHM, 2011).

Archaeological values are typically considered to be scientific values and therefore achieved only by the archaeologist using scientific method to observe, record and explain the material cultural remains of a society as manifest in the 'archaeological record'. As the scientific method is derived from western modes of thought and practice there is a frequently assumed (and often manifest) tension between the traditional cultural values of the Aboriginal community whose material culture it is and the archaeologists(s) who are to investigate it. In response to this tension in the last ten years or so there has been an increasing focus on Aboriginal community participation and collaboration in archaeological research (e.g. Clarke, 2002; Smith & Beck, 2003; Greer, 2010; Ross *et a*l., 2010). Frequently these collaborations have emphasised the importance of changing the focus of the archaeological research from articulation of the 'universal' human truths that might be yielded up by the 'archaeological endeavour' to consider the questions that the local Aboriginal community want to see answered from the material cultural remains of their ancestors (Greer, 2010).

At a most fundamental level the Project area is of cultural importance to the PCWP because it contains items of material culture manufactured, used and left within the landscape by 'the ancestors' during the course of their everyday lives. These material culture or archaeological remains (inclusive of stone artefact scatters; and stone arrangements), are, therefore, of inherent cultural value to the PCWP. The inherent value of these items to the PCWP exists irrespective of the application of any general or specific scientific (archaeological) method to further explicate meaning from them. Moreover it is not the mere application of scientific method that gives further meaning or value to such cultural remains. Rather, for the PCWP it is the focused attention on the cultural relevance and suitability of the scientific method to be applied; and its ability to answer specific questions about the ancestral past that best values such Aboriginal material cultural remains. One critical aspect of the archaeological record infrequently addressed by archaeologists in the EIS Project context but of immediate importance to the PCWP is the influence and representation of gender in the material cultural remains of their ancestors. The PCWP recognise the area to be an engendered landscape. Hence both ritual practice and everyday resource use and exploitation are expected (and also presumed) to exhibit patterns in the material culture record that reflect men and/or women's business. The explication or otherwise of this patterning in the archaeological record of the Ravensworth-Glennies Creek area is a yet unrealised research potential; and hence, archaeological value of the area.

For this Project the PCWP have (a) participated in all aspects of the archaeological field work and test excavations, and (b) been provided with summary details of the archaeological assessment and its results (i.e. Section 4.4). It is possible to move beyond some of the inherent values of the archaeological resource to the PCWP, and consider some of the values held by the PCWP in the 'doing' of archaeological work. Note here that the PCWPs perspective regarding the economic values of doing archaeology have previously been addressed in Section 5.3.2b and are not further iterated.

The practical involvement in archaeological field work is of fundamental physical, social and psychological value to members of the PCWP. Rhonda Ward has previously expressed this in the following terms:

> "I like doing site work and I do like the bush. I get excited going out on the mine sites. We look for artefacts. Most of them are just on the surface and you just go: "Oh…there's one," and you put a flag where the artefacts are. You might walk another step and there is another one and you just flag them like that and the archaeologists come behind and record them. We just keep going and we leave them there and we might later down the track like to collect them, so we go and collect them.
>
> Most of the archaeologists we work alongside are very good. There is a few I'm a bit 'iffy' about but most of them are really great. Really good to get on with and they show you the maps where you've got to go and how much you have got to do. I feel most excited when I find 'cores'. 'Cores' is where they break the flakes off. It's just a core and they've got a stone and they just hit it off. They break the flakes or the black [sic] blades for their weapons. Just to find an artefact tickles me pink. It really does."
>
> (Rhonda Ward, 2003 cited in Adlem, 2008, pp102-103)

Some of this 'doing' value arises from the fact that with significant change in land tenure, especially in the past 20 to 30 years as a result of active mining within the coalfields that lie between Singleton and Muswellbrook (i.e. flanking either side of the New England Highway), access to land of cultural value to the PCWP has been increasingly restricted. Again this challenge of access to land of cultural value for the PCWP has been previously articulated by Rhonda Ward:

> "We went on an excursion with the TAFE out to Baiame [sic]. Baiame looks over the Valley and I know he is here to guard us and look after us. I hadn't seen him when I was little because he is actually on private property. I don't think that should be. He is ours and I think we should be able to go there any time we want to go and look at him. I don't think it should be on private property and I don't think they should be charging us to go there either".
>
> (Rhonda Ward, 2003 cited in Adlem, 2008, p.108)

Likewise Maria Stocks has expressed her dismay at finding that an open cut mine had 'deleted' the landscape of her childhood.

Importantly, for the significant cultural site of Baime the restrictions on access noted by Rhonda in 2003 does not currently apply. However many of the sites within the Mt Owen Mine complex (and its surrounds) of value - including the stone arrangement noted to occur in the upper portion of Betty's Creek - are without easy access; and may be so for the life of Mine operations. In this context it is only through the active doing of the archaeology that these cultural items and places have been able to be visited by contemporary members of the PCWP.

Previously Danny Franks has eloquently expressed two aspects of value to the PCWP in the doing of archaeology that are worthy of reiteration (Tocomwall, 2012). Firstly he noted that his very intersection with artefacts and archaeological sites makes it 'living archaeology" not an abstract Secondly Danny commented on the value of the natural elements retained within a mine site that he is able to experience when doing archaeology; as these provide connection to memories and people of value to him:

> "Regardless of the negatives, I have to endure and the constant questioning I have within myself and the disrespect and devastation environmentally I have to witness every single time I am out in the field. I do some times have moments where I enjoy being out in the field but these moments are only flash backs of my childhood and most of the time I'm with my friends fishing or hunting. These are bitter sweet memories because the only things that trigger those thoughts are the specific wildlife I see; ones I am familiar with and have used as bait, have caught, or have even learnt how to track".

It is also in the context of the prior development of conservation strategies and/or mechanisms

for Aboriginal community participation in the rehabilitation and protection of archaeological and ethno-ecological resource values within the wider Project Area that the 'doing of archaeology' has contributed to some members of the PCWP

5.5.2 Natural Resource values

Only a limited identification and evaluation of the natural resources of value to the PCWP within Mt Owen occurred during this study. This was primarily due to the fact that no systematic survey of the ethno-ecological resource values across Mount Owen was possible in the context of the Project brief. A prior report prepared for the PCWP demonstrated that this Native Title Claimant group has an extensive collective knowledge of plant and animal species of traditional, and/or historic and/or contemporary importance (Tocomwall, 2012). It is known that many of these species have been documented for Mt Owen (e.g. GSS Environmental, 2006) although most especially in areas of rehabilitation and/or conservation rather than the mostly disturbed grassland of the Project Impact Area. Some of the species of value to the PCWP and noted within the Project area include:

- *Myoporum debile* (*i.e*. Amulla or Hebe): occurs in the herb or groundcover layer and has a presence in most areas of extant vegetation. This species has an edible fruit (see Figure 5.58).
- Genus such as *Kunzea* are recognised as having specific traditional values to the PCWP; and are also species recognised to be geographically isolated in their occurrence across the Project area. Although there has been significant loss and fragmentation of the vegetation across the Project (as a result of mining, and prior farming activities) it is probable that in the traditional period environmental factors such as soil type and nutrient load, slope, aspect and drainage would have influenced the distribution of particular species across the Project landscape. Consequently it is likely that species such as *Kunzea* have always retained some element of geographical isolation such that exploitation of them by ancestors of the PCWP would have always required specific knowledge of their location and the seasonal or otherwise availability of the resources derived from them;
- The fauna of the project includes a number of totemic species including the wedge-tailed eagle and black snake; exploitable food resources (e.g. echidna, kangaroo, goanna); as well as animal species such as cicadas and grubs that have been used as bait for fish (see Figure 5.59);
- Though fish and freshwater prawns are mentioned as important food resources of the PCWP no specific knowledge of the actual occurrence of exploitable fish resources within the creeks contained within Mt 0wen was identified during this assessment. It is however expected that the ephemeral nature of some streams, the significant erosion along the banks of others; and the clear indication that waterways such as Betty's Creek have been diverted, probably means that fish resources are limited.
- A number of introduced plant species including *Opuntia* (Prickly Pear),) and Gomphocarpus (Balloon Cotton Bush) are plants of particular historical value to the PCWP. The fruit of the prickly pear was used to make jams; and the Balloon Cotton bush is a habitat plant for grubs that are used for fish bait.
- Introduced animal pest species including rabbit were also of historical importance to the PCWP both as a food and past income source.



Figure 5.58 Flora species encountered within or nearby the Project area of known resource value to the PCWP. Clockwise from top Left: Mistletoe (ameyema cambagei); Hebe (*Myoporum debile*); False Sarsparilla (*Hardenbergia spp*) and Ruby saltbush (*Enchylaena tormentosa)* (Images Maria Cotter).



Figure 5.59 Some Faunal species encountered within or nearby the Project area of known resource value to the PCWP. Clockwise from top left: Kangaroo in disturbed grassland, Cicada's identified on Casuarina sp. near Bowman's Creek, A freshwater organism/probable shrimp used for bait obtained in the sandy creek bed of the diverted Betty's Creek; and a goanna on Forest Road (and see Figure 5.54) (Images Maria Cotter).

6.0 The Cultural Values of the PCWP in the Project: A synthesis

> The cultural landscape is greater than the sum of its parts, and the inter-relationships between the parts can be significant. For this reason, the details matter — significant loss of integrity and meaning can occur through the attrition of many small elements (Context et al., 2002 cited in Brown, 2010).

From the outset the PCWP have been concerned to ensure that no single Aboriginal item or place within the Project be subject to an evaluation based on the systematic ranking of its Aboriginal cultural values relative to the other items or places within the Project area. This type of ranking is counter to the expression and belief of the PCWP that it is not one item, artefact, grinding groove, plant or animal species that is of value to them in the Project but rather it is the sum total of all such component parts of the landscape - and its surrounds - that provide cultural meaning to them. This has been clearly articulated by the late Aunty Barbara Foot. The following is an amended extract of notes made by Ms Sarah Paddington of OEH when in conversation with Aunty Barbara Foot and her son David in February 2011:

> "As a girl I would travel along Bowmans [Creek]. We'd go from the mission, to school to town … My Dad had a lot of cultural knowledge. He passed it on to me. He'd tell me places I could and couldn't go. He showed me important places. Places our ancestors still come through. I know how to read the sings of the land, the seasons. The signs are our lore, they show the way – like people used street signs to have order. Some of the signs, the trees, have been cleared but we know where they were from our ancestors, and we know what they tell us. People not from here don't have that knowledge.…
>
> The area is all important to us. We can't break it up for each mine – that is how they are getting away with destroying so much of our culture. They don't understand how it all links together, so it doesn't seem as important when you look at this little bit or that little bit. That's how they are breaking up our community too – the mine mention money and that starts fights. The mines want the fights as they get to keep what they want if the community is distracted."
>
> (Aunty Barb Foot, February 2011 cited in attachment to email forwarded by Ms Sarah Paddington of OEH to Mr Scott Franks & Mr Robert Lester, 17 April 2011)[26]

In line with Aunty Barb's assessment it remains the broad view of the PCWP that the steady attrition of elements of the Aboriginal cultural landscape within their Wonnarua Country - especially those items of Aboriginal material culture subject to archaeological assessment - has occurred as a direct result of the application of a process of systematic ranking of items or places.

The purpose of this section then is to provide a synthesis of the cultural values that the PCWP ascribes to the Project area; and to provide a summary of these values in the context of standard Burra Charter significance criteria. The statement of cultural significance that results from this summary and synthesis is by necessity at the 'whole of landscape' rather than the individual item or place. The consequent evaluation of the likely impacts of Project approval on the PCWP specific cultural values are also those considered at this 'landscape' scale. So too, the mitigation strategies outlined are not focused on individual items or places but rather on the potential to mitigate the current and cumulative impacts of mining on the sum total of cultural s values held by the PCWP within the Project. Tocomwall acknowledges that this 'whole of landscape' approach is not the evaluation mode adopted either in the Ozark Archaeological assessment or the broader ACHAR being developed by ACHM, both of which attribute some form of ranking of significance to component parts of the Aboriginal cultural landscape within the Project area. Whilst this may make some elements of the integration of this

[26] Full copy of email available on request.

report within the broader ACHAR challenging, Tocomwall believes that to include such rankings would be counter to the PCWPs world view; and consequently would not be an effective synthesis of their cultural knowledge in and of the Project area and its surrounds.

6.1. An overview statement of cultural value

The Heads of Family of the PCWP collectively support the following overview statement in relation to the cultural significance of the Project Area to them:

> We need to look at the landscape from a position of duty, responsibility, and focus on the achievement of inter-generational equity. We do not own the land, in terms of European concepts of ownership. Our ownership is in the context of the use of the land and its various animals and plants to sustain our bodies and we gave/give homage to them by creating ceremonial dances for them. The importance of this process should not be underestimated, for it is how our people worked with the environment, the landscape, our neighbours and how we all from different Aboriginal language groups, worked as one with Mother Nature. We were practising land management thousands of years before European invaded our country.
>
> Mt Owen is in an area with close proximity to places that have been used by our people since the time of creation. The Glennies Creek catchment is a place known to our people, which contained a pathway, known today as a song line. The path was placed there by our creator Biami, which in the beginning would have been sheltered from prying eyes and onlookers who were not supposed to know or see what was going on, unless invited. This pathway contains site for initiations and religious practises (Dream Time).
>
> These same lands that may have interaction with this mine are places that represent what our people are about. The landscape has present ceremonial places (stone arrangements) scarred trees, fishing holes, teaching and birthplaces and places to camp and prosper. In today's terms this is our home and our community. Even today you can talk to any member of our claim group and all will have some type of association with this area.
>
> Having Glencore work with our people to understand its importance is a great step forward but at this stage it is a very small one as almost all reports that have been undertaken in the Hunter Valley and elsewhere, in the past regarding Aboriginal Cultural Heritage Values are centred solely on the identification of stone objects within a given location. The normal stakeholder incentive for involvement in this process is for paid fieldwork participation and often their expertise is in stone materials and identification only.
>
> Consideration in the past, by those in the archaeological industry is that Aboriginal people had more to say about the landscape than just stones and bones. This has never been fully canvassed which has been a fundamental flaw in almost all previous reports. There has not been an inclusion of the values that Aboriginal people place on the fauna and flora within a given study area. This is a major issue, not only for Aboriginal people but for the wider community. The history of this country is for all to protect. As the human race we learn from or past and our history to better understand the future.
>
> The Hunter Valley has been heavily impacted on for decades from both coal mining and the agricultural industries. The Plains Clans of the Wonnarua People's (PCWP's) country only has approximately 7.5% of our lands left untouched. Our own traditional lores and

customs need to be able to protect this remaining pristine country for our people to live in harmony and for all future generations to learn from. We need to continue teaching our people and all future generations about who we are and where we are from.

Most surveys focus tend on the artefacts that are found on the day and invariably no real effort is taken to understand why they are there, what is happening or where the artefacts are located. Most are recorded as isolated finds when in fact it is a series of sites that make up a complex camping ground being a recognised Aboriginal site. We were taught from these lands as we grew up. It is a place where our families lived, hunted and learnt to interpret the lands. To a non-Aboriginal person in this area is your house, school, hospital, church, shopping centre, doctors, police station, your whole community or society. That is why most reports do not reflect this; it is very complex for a non-Aboriginal to understand and interpret the lands and put into words.

The land around the Project is extremely important to our people. Today, the lands, as in most other areas, are one of many pages in a book and allow us look back in time. It gives our people a better understanding of the stories we were told, when we were young, what they were about and about why. The land still has the foot prints of our people from the beginning of time and allows our people to have direct contact with our lands and our elders.

As we looked around Mt Owen, and participated in test excavations we found many artefacts. Each time we encountered these objects we felt the presence of our people and the excitement that we were now standing in one of our people's houses. It is a firsthand experience and shows where our people lived, hunted, fought to defend their lands, thrived and were happy and cried.

This part of the Hunter Valley makes us feel like we are coming home. The reality is though that this is a place that will not be here in the future. Just as what has happened to the other homes of our people it will be lost. To try and put in words exactly what this place is worth is beyond comprehension.

We believe that if Glencore is willing and able to commit to working with our people on these lands that the mine is to operate on, the land will continue to reveal more stories and information. But the work needs to continue as the timeframes sought by approval for the project in no way allows our lands to be fully explained and understood.

(Heads of Family of the PCWP, September 2013)

6.2. Summary statements of value relative to *Burra Charter* criteria.

6.2.1 Summary statement of historical value:

The Project is of considerable historic heritage value due to the multiple and complex associations of the Franks, Smith and Lester families with the broader Ravensworth, Carrowbrook, Mt Olive and Camberwell areas. For the PCWP these values commence with the historic documentation of the marriage of Matilda Hughes (nee Smith) at Camberwell in 1856. When considered in the context of her descendants, Matilda's lifespan (from 1832/3 to 1913) provides a significant and important record of the process of the cultural transitioning of the PCWP from an exclusively traditional Wonnarua way of life to contemporary modes of living within the Ravensworth–Mt Olive area. An important

component of this transitioning is the negotiation of dual Aboriginal and modern Australian identities; and the Smith-Lester family, particularly through the war history records of Augustus and Alistair Lester provides one example of this process of transition – and its consequences for the Lester family - that is of national importance. This duality of lived experience appears true for many of the PCWP both past and present. Today, as the information in this report firmly indicates, the Heads of Family of the PCWP have a strong Aboriginal identity with specific knowledge and connection to the physical and spiritual landscape of Wonnarua country; and respect for the traditional lores and customs of their Plains Clans society. Equally they are modern Australians within an ever globalised world with use and access of mobile phone, internet, and digital TV technologies; and fundamental use and respect of the law and practices of Australia today. Yet, it is an historical narrative that consistently emphasises a *continuity* of association of members of the PCWP with land and landscape in the Glennies Creek-Bowman's creek area. It is not simply a story of dispossession and alienation from tribal lands. Nor is it one of regeneration of Aboriginal identity within the socio-centre of the Aboriginal reserve or mission, as is elsewhere typified for the Hunter Valley (Blyton & Ramsland, 2012). It is a narrative of persistence, adaptation and cohabitation with various settler families. It is a story of a negotiated spaces and shared landscape in the 'Country' to which the PCWP recognise that they now and forever have belonged.

6.2.2 Summary statement of social value

Mt Owen and surrounds is of immense and enduring social significance to the PCWP. This significance primarily derives from the complex mix of that which is understood to be 'sacred' and derived from the realm of the creator and that which is 'secular' and arising out of their everyday experiences of both their ancestors and themselves within this landscape. Today, a unifying element in this sacred and secular world is Glennies Creek. This watercourse's value to the PCWP as a dreaming track, as a loci of family histories, as an ecological resource zone, and as a site of recreation and story-telling is immeasurable This value is especially heightened for the PCWP by the fact that other nearby creeks such as Bowman's Creek and Betty's creek which lie within Mt Owen have been substantially altered by mining activity. Although dammed at its source, the PCWP consider Glennies Creek to be the last relatively intact creek and dreaming track within the mining precinct that exists between Singleton and Muswellbrook. The Aboriginal cultural landscape is also of historic and contemporary social importance as a place where either via participation in various historic and contemporary rural activities and/or recent mine related activities (including archaeological survey as part of EIA) the PCWP have been able to achieve freehold lease and/or ownership and/or access to part of their cultural landscape that is for them unprecedented within in the Hunter Valley.

6.2.3 Summary statement of aesthetic value

The aesthetic values of the Project to the PCWP are mixed. Overwhelmingly, however the immense scale at which mining activity has and continues to alter the biophysical landscape of the Project, and negatively affect the visual and aural perception of the items and places of cultural value within it; means that the Project is considered to have little aesthetic value for the PCWP. The PCWP commonly state that mining destroys the landscape, there is nothing left and that the landscape that remains has no integrity. Or else it is stated that "When open cut mining is planned there are no aesthetic values for consideration the landscape is, or will be gone".

6.2.4 Summary statement of scientific value

For the PCWP the archaeological values of the Project area have been substantially compromised by past salvage works. There are elements of the wider area including the Bettys Creek stone arrangement for which ongoing protection and ethno-ecological values of the Project are both substantial and yet to be fully realised. For the PCWP the scientific value of the archaeological and ethno-ecological resources of the Project area have been diminished by a program of archaeological assessment that has been tied to the development process; and for which no due consideration of the Wonnarua perspective has been afforded. Numerous artefact scatters, substantial grinding groove sites and a significant number of plants and animals are known for the Project but to date none have been considered in their context as contributory elements of a unique, highly ritualised and bountiful cultural landscape to which the PCWP has direct ancestral, historic and contemporary links.

6.3 Statement of cultural heritage significance

The landscape of the Project area has a fundamental significance because of its historical, social, and scientific value to the PCWP. For the PCWP the Mt Owen Consolidated Project Area and surrounds is a complex, multi-layered cultural landscape where in combination (a) the biophysical attributes of the landscape including the drainage systems, fauna and flora, geology and soils; (b) the material traces of traditional Wonnarua people; (c) the historical associations and experiential reference points of its members , and in particular those of the Smith, Franks and Lester families (and all associated descendant families); and (d) the various spiritual, lived experiences and economic attachments of contemporary PCWP members contribute to a high level of cultural significance for which words are considered inadequate to describe.

Mt Owen is part of an immensely important cultural landscape to the PCWP. It is, however, a part of this landscape that has already been subject to catastrophic change and despoilment by the physical action and aesthetic impact of past, and current mining activities. Open cut coal mining has been a progressive and substantial intrusion on the cultural landscape values of the lands within Mt Owen for which members of the PCWP feel a profound and enduring sense of loss. This loss is compounded by their feelings of guilt and distress at not being able to protect the land for which they have custodial responsibility.

6.4 Possible Mitigation Measures: The PCWP Viewpoint

> You can't just borrow something, use it to the point of no sustainability then hand it back for future generations. It's not just land. By then it's lost its values both culturally and spiritually.
>
> Danny Franks, 2012.

The PCWP has previously outlined to Glencore that Aboriginal cultural heritage assessments are 'front-end' requirements to mine development, and although the resultant Aboriginal Cultural Heritage Management Plans (ACHMPs) are frequently constituted as "Life of Mine" documents, the opportunities for engagement in mine-related activities by Aboriginal groups such as the PWCP is usually limited (Tocomwall, 2012). Typically, Aboriginal engagement occurs only in the context of participation in these front-end assessment activities and the mitigation programmes of archaeological excavation and/or Aboriginal community salvage that subsequently result.

It is the experience of the PCWP that this process has too frequently caused the removal and/or destruction of *in situ* Aboriginal cultural heritage items and placed the PCWP in the uncomfortably complicit position of actively participating in aboriginal archaeological survey works in order to fulfil their custodial obligations with respect to Wonnarua Country only to have this result in the significant harm and loss of their Aboriginal cultural heritage.

The PCWP has therefore expressed a wish to partner with GLENCORE in longer term mine-related activities that bring economic and cultural benefit to the PWCP; and which enhance (rather than destroy) the natural and cultural capital of Wonnarua Country more generally (Tocomwall, 2012a, 2012b). The engagement of the PCWP in mine-related Aboriginal cultural heritage activities across the Mt Owen Project Area is one such opportunity to trial longer term mitigation of mining impacts to Aboriginal cultural heritage. Some of the activities that would help to mitigate the actual, cumulative and future impacts of the Project on the full range of PCWP specific cultural values identified are listed below. The PCWP considers that due consideration of these mitigation strategies is imperative. Where necessary, some explanation of the basis of each mitigation strategy proposed is also provided.

I. Further systematic assessment and/or recording of PCWP cultural resource values within the Project area prior to mine clearance works. This should be conducted with the view of establishing 3D digital models of the existing physical landscape and/or photographic records of the landform and vegetation communities within it as an archival record. This would be expected to be able to be used as a future resource for development of interactive teaching materials for young Wonnarua without past, current or likely future access to the mine site.

II. Realistic evaluation of the current and future landscape contexts of *in-situ* Aboriginal cultural resources within the Project area. This should include dynamic 3D landform modelling of all likely future mine-induced landform modifications in and around all archaeological sites of Aboriginal cultural value. Conservation of all known Aboriginal objects and their associated physical settings should be assed in the context of their ongoing position within the active mine site so as to reduce any potential to cause incidental and/or incremental compromise of the cultural value of retained sites (and see III below).

III. Active open cut mining is perceived by the PCWP to have a wholly negative and intrusive effect on their Aboriginal cultural landscape, including the Project area. These negative and intrusive effects include:

a. Compromised aesthetic and/or amenity values. PCWP members describe the area about Mt Owen as having been relatively flat to moderately undulating - valley like – until the advent of mining activities within their lifetimes. Hence the actively mined landforms of the Project area (with or without obvious erosional control and/or re-vegetation) are immediately recognised by them as being artificial, and out of context; and simply not capable of effectively supporting and/or sustaining any of their cultural reference points. This is likewise for all existing and future mining voids which are perceived by the PCWP to effectively 'delete' all cultural reference points from the existing landscape.

b. Fragmented and isolated Aboriginal archaeological sites; both from each other and also from their wider cultural landscape contexts; and finally
c. Reduced and/or limited access to known and valued Aboriginal archaeological or cultural sites as a result of the vagaries of mine site activities.

Consequently the PCWP considers it imperative that the conservation of Aboriginal archaeological and cultural sites within the Mt Owen Complex - including all minor and major infrastructure intensive areas - should be considered in the context of any current and likely future impacts.

It is paramount that places of cultural value that are to be retained *in situ* should be considered in light of the possibility of achieving their in-perpetuity conservation. If in perpetuity conservation cannot be supported for such sites then the merit and practicalities of any short-term retention of sites *in situ* within or immediately adjoining active mine works and related infrastructure area should be considered. Where sites are to be fully retained then the focus should be on the active rather than passive management of these sites within the Mine Lease Area. This is to ensure that their cultural values are maintained and/or improved rather than left to deteriorate. This active management process should be incorporated into any Aboriginal cultural Heritage Plan that is to be devised for the Project (and/or the entire Mt Owen Complex) and it should have a yearly reporting/auditing requirement within the Environmental Management Plan

IV. Commitment in all current and future mine plans to positive communication of Aboriginal cultural values across the Project area. In general Aboriginal archaeological sites that have been retained *in situ* have been fenced and/or signed "Do Not Enter" and/or "Strictly No Disturbance" (e.g. see front cover photograph) so as to enforce avoidance and thereby mitigate harm to Aboriginal objects. It is the view of the PCWP that to date this negative signage has:

a. failed to actively communicate any positive message regarding the value of this heritage to anyone; and provided no explanation as to why each particular area requires protection (including no explanation of the nature and extent of the material culture and any of its archaeological rarity, representativeness and/or research values, nor of its inherent cultural values to PCWP or indeed its possible gendered related cultural sensitivities);
b. Embedded an operational strategy of cultural heritage site avoidance that has elsewhere led to the development of "an out of sight, out of mind" approach to *in situ* archaeological site management and consequently resulted in the deterioration of these sites;
c. Provided no mine site visibility of the positive commitment of Glencore to the recognition and protection of Aboriginal cultural heritage.
d. Allowed for the fragmentation of the Aboriginal cultural landscape of the Project and the compartmentalisation and /or isolation of its component parts.

V. Following from mitigation measure **IV**, irrespective of the prior, current and ongoing status of any and all Aboriginal material culture within the mine site a priority commitment should be made to the development and implementation of a strategic interpretative signage programme across Mt Owen. This signage strategy should aim to actively recognise the full range of traditional, historic and contemporary Aboriginal cultural values in this landscape. The strategy should be iterative and able to accommodate both the active mine area for the life of the mine; as well as those areas to be sequentially subject to rehabilitation.

VI. Financial and logistic support for the development of education materials and extension programs using PCWP cultural knowledge including;

a. The production and development of a primary school reader series aimed at the NSW Schools K-6 Human Society and Its Environment (HSIE) syllabus that introduces primary school children within the Upper Hunter (and beyond) to the concepts, contents and values of Wonnarua cultural and ecological knowledge. A targeted focus would be on the use of these materials to enhance the relevance of literacy aids for Aboriginal schools within the Hunter region;

b. The development of novel Aboriginal cultural awareness training packages that allow for the focused use of materials and knowledge provided by the PCWP. A key component of this training would be their development, implementation and delivery by Tocomwall (as support for the PCWP). The employment of an Aboriginal cultural awareness officer as part of the HR management system across the mine is a warranted component of any ongoing support for this type of training.

c. The development of horticultural extension programs that enable Aboriginal people to be trained and actively participate in mine rehabilitation and revegetation works, (especially where this is integrated with mitigation measure **VII** below).

VII. Support for investigations of the potential horticultural use of plant species of known Aboriginal use and or value for cultural landscape rehabilitation as an integrated component of mine site rehabilitation across the Project area. This would include pre-emptive retrieval of seed at the time of and/or before vegetation clearance works occur. Likewise, it should comprise intensive research on the effective soil inoculation rates for germination of the mid and understorey components of this native vegetation, as it is plants in these storeys that use and knowledge of by the PCWP is most focused. This warrants development of horticultural/greenhouse spaces for managing seed collection and propagation and the development of trial sites within the mined landscape for this testing.

This activity would effectively build on the already significant body of scientific research achieved on this mine site in regard to native plant rehabilitation; and by incorporating PCWP specific knowledge -and co-locating it within those previously designated voluntary conservation areas where known Aboriginal objects have been retained - would further enhance these zones; and enable a positive and ongoing involvement of the PCWP within their cultural landscape.

VIII. The development of contractual arrangements for employment of PCWP members in on-ground works such as erection of signage, fencing, tree planting, management of

revegetation, feral animal and weed control, earthworks and landscaping, fire mitigation and hazard reduction management. The PCWP recognises that Tocomwall has the capacity to manage such contractual arrangements and has the support of the PCWP to do so within the Hunter Valley.

IX. Commitment to and support for the leverage of funding from the NSW Minerals Council (from the apparently largely inactive Upper Hunter Cultural Heritage Trust[27] to enable the consolidated return of Aboriginal cultural heritage objects collected across the mine site. The PCWP has already sort assistance for this in regard to the Glencore Bulga Optimisation project (see Tocomwall, 2012a); and sees that it is of vital importance that such a keeping place is found for all cultural materials removed from PCWP lands; and in the returning of their PCWP specific cultural heritage to 'Country'.

X. Following on from mitigation measure **IX,** commitment to and support for the use of some of the previously agreed funding (*i.e*. for the establishment of a Keeping Place or Wonnarura Cultural Teaching and Learning Centre) by Glencore to investigate and implement culturally appropriate and, in perpetuity arrangements, for the repatriation of Aboriginal objects to the Wonnarua People. The PCWP do not want objects returned to Wonnarua Country if they are not going to be properly curated and/or protected and/or conserved in a place that will not be subject to any development pressures into the future.

XI. Further to mitigation measures I**X** and **X;** these do not nullify the PCWPs wish to see a fully funded and operational Wonnarura Keeping Place and Teaching and Learning Centre established within the Singleton LGA. In fact the PCWP see this as being vital to any strategy developed to address the cumulative impact of mining on their heritage. Consequently the PCWP believe that firm commitments not just to the funding of such a building but to all necessary actioning to get such a structure built is now required. Strategic support from Glencore to access suitable funding from other of the mines in the Valley via the NSW minerals Council, would be seen as appropriate to help achieve recompense for the loss of the cultural landscape of the PCWP and would be one measure that would afford appropriate redress of cumulative impact and allow for some achievement of intergenerational equity.

XII. If located and repatriated to Wonnarua Country the stone artefact assemblages that have been collected and removed from the Project via various AHIPs should be systematically analyzed to achieve a synthesis of data across the Project. This analysis should be funded by Glencore as a research program of and for the PCWP with support from relevant University sector participants. The research should be collaborative and *designed to answer specific questions that the PCWP have with respect to their heritage.*

XIII. With the clear recognition that the cultural landscape values of Mt Owen to the PCWP is firmly linked to its occurrence within the Bowman and Glennies Creek Catchment areas the PCWP seek logistic support and funding to assist in the declaration of Glennies Creek as an Aboriginal place. For the PCWP Glennies Creek is considered the only major culturally important

[27] See NSW Mineral Councils, 2012 for information regarding this Trust Fund.

dreaming track, secular pathway and locale of ritual, ceremony, recreation and resource use that remains substantially intact within the broader Mining Precinct and hence is warrants this level of protection.

XIV. The PCWP have demonstrated a significant and ongoing connection to the area about Mt Owen, the core of which has been related to oral history, archival and genealogical research on their traditional, historical and ongoing connection to this country. The PCWP seeks funding and/or logistic support to continue this research with the view to understanding the past involvement of their ancestors with the area and linking it with the historic and contemporary stories of this place. Ultimately the PCWP desire to prepare technical and popular information in a variety of media about their story of survival, connection and ongoing custodianship of the cultural landscape within which MT Owen occurs.

Finally, it is important to recognise that:

(i) there is a continuing existence of Aboriginal archaeological sites in the surface and sub-surface of the Mt Owen Complex, and these are coupled with physical attributions across this landscape of European pastoralism and settlement in which the members of the PCWP have had a historical association and/or continue to participate in (e.g. as fencing contractors, boundary riders, dingo bounty hunters, rabbit trappers etc.). This then means that;

(ii) For the PCWP the physical landscape continues to reflect their cultural narrative and has within it loci of social memory and cultural and spiritual meaning to which they can and do continue to refer.

(iii) In contrast to this the PCWP recognise open cut mining to be catastrophic. It removes all loci of cultural and spiritual reference and it is, in this context, beyond their cultural thresholds to adapt.

(iv) In accepting the possibilities of mine approval, the PCWP acknowledge these catastrophic effects to their heritage, and concede them in light of the above mitigation measures proposed being implemented.

The PCWP maintains that the measures outlined if provided for in the short, mid and long term will enable them to be instrumental in managing the consequences of their decisions for all elements of their heritage within the Mt Owen Complex.

7.0 Discussion and Recommendations

An ongoing concern of the PCWP has been that to date decisions about Aboriginal cultural heritage on Wonnarua lands have been made by people who do not have - and will never have - the cultural knowledge of, values in, nor connections to Wonnarua Country as do the PCWP. This is absolutely so for that part of Wonnarua Country bounded by the current Project area which is in that part of the cultural landscape of the PCWP from which they derive their unique identity and cultural connections it is the epicentre of their beginning and belonging. The PCWP remain earnest that this form of decision making has to stop as it has not, to date, effectively preserved their cultural heritage, nor achieved genuine inter or intra-generational equity objectives. Consequently they recommend that due consideration of all mitigation measures outlined in Section 6.0 is imperative.

8.0 Concluding Remarks

Tocomwall and the PCWP have taken the responsibility to report the cultural values of the Project area very seriously and acknowledge the 'rare' privilege it has been to be able to speak about Wonnarua Country in this way. In so far as the opportunity has been afforded it to do so in the context of the preparation of the Project EIS, the support of Glencore Mt Owen in doing so is gratefully acknowledged. In stating this it must also be acknowledged that the range and complexity of values that the PCWP can and do ascribe to the Project area mean that they as of yet have neither been fully documented and/or fully analysed. Going forward Tocomwall and the PCWP want to emphasise that, in the contexts of the current mine development proposal and/or any future mining development and/ or life of mine site rehabilitation programs, further documentation and analysis of these values is warranted. Moreover a commitment to the development and maintenance of a long-term relationship with the PCWP by the proponent is seen as being imperative to the sound identification, documentation, repatriation, ecological retrieval and/or archival recording of PCWP cultural values into the future. The PCWP intend to continue to be active in a process of informed decision making about their heritage; and consider the Aboriginal cultural heritage assessment process enabled by Glencore Mt Owen to be a significant first step.

9.0 References

Adlem, K.J. 2008. "*Relating to Country": Listening, Reflecting and Relating to Contemporary Aboriginal stories from Won:arua Country in the Hunter Valley*. Unpublished, PhD Thesis (Fine Arts), University of Newcastle, NSW.

Appetiti, E. Yaniv, Z, & Bachrach, U. 2005. Remedies from the Bush: Traditional Medicine among the Australian Aborigines. pp. 175-190. *Handbook of Medicinal Plants*.

Australian Heritage Commission, 2000a. *Protecting Heritage Places: Information and Resource Kit.* Australian Heritage Commission, Canberra, ACT.

Australian Heritage Commission, 2000b. *Protecting Local Heritage Places: A guide for communities.* Australian Heritage Commission, Canberra, ACT.

Australia ICOMOS 1999 *The Burra Charter:* The Australia ICOMOS Charter for Places of Cultural Significance 1999: (with associated guidelines and Code on the Ethics of Co-existence). Australia ICOMOS Canberra..

Belshaw, J. 1978. Population distribution and the pattern of seasonal movement in northern New South Wales. In McBryde, I. (ed.), *Records of Times Past: ethnohistorical essays on the culture and ecology of the New England tribes*. Australian Institute of Aboriginal Studies, Canberra, pp.65-81.

Blyton, G. & Ramsland, J. 2012. Mixed-race unions and Indigenous demography in the Hunter Valley of New South Wales, 1788-1850. *Journal Royal Australian Historical Society,* 98(1): pp.125-148.

Blyton G. M., Heitmeyer D. G. & Maynard J. M. 2004. *Wannin thanbarran a history of Aboriginal and European contact in Muswellbrook and the Upper Hunter Valley*. Muswellbrook Shire Aboriginal Reconciliation Committee, Newcastle.

Boodle, R.G. 1874. Recollections of ministerial work in the Diocese of Newcastle, New South Wales. In, Halcombe, J.J. Rev. 1874. (ed.) *The emigrant and the heathen, or sketches of Missionary Life.* Society for Promoting Christian Knowledge, London.

Boyd, W.E., Cotter, M.M., Gardiner, J. & Taylor, G. 2005. "Rigidity and a changing order…disorder, degeneracy and daemonic repetition: Fluidity of cultural values and cultural heritage management, In Mathers, C., Darvill, T. and Little, B.J. (eds.), *Heritage of Value, Archaeology of Renown: Reshaping Archaeological Assessment and Significance*, pp. 89-113, University of Florida Press, Gainsville, Florida.

Brayshaw, H. 1966. Some Aspects of the Material culture of the Aborigines of the Hunter Valley at the time of first white settlement in the Area. Unpublished, B.A. Honours Thesis, University of New England, Armidale.

Brayshaw, H. 1986. Aborigines of the Hunter Valley: A Study of Colonial Records: *Bicentennial Publication No 4:* Scone, Scone and Upper Hunter Historical Society.

Brayshaw, H. **1988**. Reconnaissance survey for archaeological sites Authorisation 219, Bulga, Hunter Valley, NSW. Unpublished report, Brayshaw McDonald Pty Ltd to the Newcastle Wallsend Coal Company Pty Ltd through Mitchell McCotter & Associates Pty Ltd, May 1988.

Brayshaw, H. 1991. Bulga Mine EIS, Additional archaeological survey for Aboriginal sites. Unpublished report Brayshaw McDonald Pty Ltd, January 1991.

Brayshaw, H. 2003. Looking for the Bora Ground in the Wallaby Scrub near Bulga NSW. Unpublished report by Helen Brayshaw heritage Consultants, Drummoyne.

Breton, R.N. (1834). Excursions in New South Wales, Western Australia and Van Dieman's Land, During the Years 1830, 1831, 1832 and 1833, 2nd Revised Edition, Richard Bentley, London.

Brown, J. ***c*. 1825**. Anonymous diary by a servant of the Scott family, 8 August 1821 –March 1824 (written after 1825) with notes. [Transcribed and researched by Jan Thomas, State Library of NSW]. State Library of NSW MLMSS 7808(Safe 1/403). at <http://acms.sl.nsw.gov.au/_transcript/2011/D03307/a2852.htm#2a2852009>.

Brown, S. 2008. *Cultural Landscapes* Department of Environment, Climate Change and Water, Goulburn Street Sydney.

Bryce, S., 1992. *Women's Gathering and Hunting in the Pitjantjatjara Homelands*. IAD Press, Alice Springs.

Bryne, D., Brayshaw, H. & Ireland, T. 2003. *Social Significance: a discussion paper*. NSW National Parks & Wildlife Service. Hurstville, NSW.

Byrne, D. & Nugent, M. 2004. *Mapping Attachment: A spatial approach to Aboriginal post-contact heritage*. Department of Environment & Conservation, Bridge Street Hurstville, NSW.

Bowdler, S. **2001.** The Management of Indigenous Ceremonial ("Bora") sites as components of cultural landscapes. In Cotter, M.M., Boyd, W.E. & Gardiner, J.E. (eds), 2001. *Heritage Landscapes: Understanding Place and Communities*, Southern Cross University Press, Lismore NSW.

Campbell, V. **1978.** Ethnohistorical evidence on the diet and economy of the Aborigines of the Macleay River Valley. In McBryde, I. 1978, *Records of Times Past: Ethnohistorical essays on the culture and ecology of the New England tribes*. Australian Institute of Aboriginal Studies, Canberra, pp. 83-100.

Cribb, A.B. & Cribb, J.W. 1981. *Useful Wild Plants in Australia*. Collins, Sydney.

Clark, A. 2002. The ideal and the real: cultural and personal transformations of archaeological research on Groote Eylandt, northern Australia. *World Archaeology,* 34 (2), 249-264.

Cotter, M.M. 2009. *Landscapes of Deception: A multi-modal exploration of the Indigenous Cultural Heritage Values of Deception Bay, Southeast Queensland*. (Vols. 1& 2). Unpublished PhD Thesis, School of Environmental Science and Management, Southern Cross University, Lismore NSW.

Cotter, M.M. 2013. Expert Witness Report Land & Environment Court Proceedings No. 11154 of 2012, Hunter Environment Lobby Inc v Minister for Planning and Infrastructure and Ashton Coal Operations Pty Limited. Unpublished Report commissioned by Hunter Environmental Lobby Inc. 31 May 2013.

Cotter, M.M.& Boyd, W.E. 2001. The value of cultural heritage in 'marginal' landscapes: a southeast Queensland case study. In Cotter, M.M., W.E. Boyd & J.E. Gardiner (eds), *Heritage Landscapes: Understanding Place & Communities*. Lismore: Southern Cross University Press.

Cotter, M. Boyd, B. & Gardiner, J. 2001. *Heritage Landscapes: Understanding Place and Communities*. Southern Cross University Press, Lismore, NSW.

Cotter, M., Davidson, I., Duncan, B., Porter, S. & Wilson, J. 2005. The Gamilaraay Resource Use Project: documenting Indigenous natural resource use in northern New South Wales. In Recording Indigenous Knowledge on Electronic Databases Workshop, Desert Knowledge Cooperative Research Centre, Alice Springs, February, 2005.

Cotter, M., Davidson, I., Ross, H. Brown, D. Duncan, B & Waters, C. 2006. Win-win Aboriginal Community participation in cotton. In product, Production profit: progressing our Natural Advantage, Proceedings of the13th Australian Cotton conference, Gold Coast, August 2006. Australian Cotton Growers Research Association, pp 173-179.

Cotter, M. & Gardiner, J. (eds). 1999. *A patchwork of meanings: A Field Guide to the Heritage Landscapes of the Alstonville Plateau***.** School of Resource Science & Management, Southern Cross University, Lismore NSW.

Cotter, M. & Gamilaraay Resource Use Project Team, 2004. Documenting aboriginal ecological knowledge in northern New South Wales: time to expand the cultural heritage management paradigm? In Cotter, M., W. Beck, C. Clarke, I. Davidson, K. Grant, R. James, C. Mitchell, M. Ridges, J. Ross, A. Piper, D. Vale, P. Watson and R. Webb (eds.), *Networks and Narratives: Program and Abstracts, Australian Archaeological Association Annual Conference 12-15 December 2004*. Armidale: School of Human and Environmental Studies, University of New England, pp. 76.

Cunningham, P. 1827. *Two Years in New South Wales.* 2nd Edition.2 Vols. Henry Colburn, London.

Daw, B., Walley, T. & Keighery, G. 1997. *Bush Tucker Plants of the South-West*. Department of Conservation and Land Management, Kensington, W.A.

DEC, 2004. *Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation,* Department of Environment and Conservation, Sydney, NSW, December, 2004.

DECCW, 2007. Data Audit and Summary of Aboriginal Cultural Heritage. Draft Report to the Lachlan CMA Regional Aboriginal Reference Group. Department of Environment Climate Change & Water, North West Branch, Dubbo NSW.

DECCW 2010a. *Aboriginal cultural heritage consultation requirements for proponents 2010. Part 6 National parks & Wildlife Act, 1974.* April, 2010. Department of Environment, Climate Change and Water, Goulburn St, Sydney.

DECCW 2010b. *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW 2010*. September 2010. Department of Environment, Climate Change and Water, Goulburn St, Sydney.

DECCW 2010c. *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW 2010* September 2010. Department of Environment, Climate Change and Water, Goulburn St, Sydney.

DP&I, 2011. State Significant Development-Director General's Requirements Bulga Coal Open Cut Optimisation Project (SSD-4960). Letter from Director Mining & Industry, Department of Planning & Infrastructure to Bulga Coal Management Pty Ltd, December 14 2011 [Ref # 10/16106].

Dowling, P. 1991. An onsite archaeological consultation at the proposed Glennies Creek Coal Mine, Hunter Valley, NSW. Unpublished Report to Maitland Main Collieries Pty Ltd.

Dyall, L.K. 1981a. Saxonvale Coalmining Authorisation Report on Aboriginal Relics. Unpublished Report to BHP Co Ltd.

Dyall, L.K. 1981b. Aboriginal axe sharpening Grooves Located outside BHP's Saxonvale Coal Mine Property. Unpublished report to BHP Central Engineering, North Sydney.

Effenberger, S. 1994. Archaeological Assessment — Rixs Creek. Unpublished Envirosciences Pty Limited Report for Bloomfield Collieries Pty Limited.

Eipper, C. 1841. Observations made on a journey to the natives at Toorbal, Aug. 2 1841. *Colonial Observer,* 1 (2):10.

English, A. & Gay, L. 2005. *Living Land, Living Culture: Aboriginal Heritage & Salinity*. Department of Environment & Conservation, Hurstville, NSW.

Envirosciences, 1991. Environmental impacts statement: expansion of Wambo Coal Mine at Warkworth. Unpublished report prepared for Wambo Mining Corporation Pty Ltd.

ERM, 1999. Bulga Open Cut Mine: Archaeological assessment. Unpublished report prepared for Bulga Coal Management Ltd, February 1999.

ERM, 2004. Upper Hunter Aboriginal Heritage Baseline Study. Unpublished Report for the Upper Hunter Aboriginal Heritage Trust.

Etheridge, R. **1918**. The denroglyphs or carved trees of New South Wales. *Memoirs of the Geological Survey of New South Wales,* Ethnological Series No.3.

Fawcett, J.W. 1898a. Notes on the Customs and dialect of the Wonnah-ruah tribe**.** *Science*: of Man, 7:152:154

Fawcett, J.W. 1898b. Customs of the Wannah-ruah tribe and their dialect of vocabulary. *Science of Man*, 8:180:181.

Franks, S.2012a. Further Statement of Mr Scott McCain Franks 24 August 2012, in support of the Plains Clans of the Wonnarua People Native Title Application #2 (NNTT# NC12/4), Federal Court #NSD 1093/12, pp.12. Unpublished Statement to the National Native Title Tribunal, August 2012.

Gaikwad, J., Khanna, V., Vemulpad, S., Jamie, J., Kohen, J. and Ranganathan, S. 2008. CMKb: a web-based prototype for integrating Australian Aboriginal customary medicinal plant knowledge. *BMC Bioinformatics, 9. Supplement 12:S25.*

Godwin, L. **1990**. Inside information: Settlement and Alliance in the late Holocene of Northeastern New South Wales, Unpublished PhD Thesis, University of New England.

Godwin, L. 2011. The Application of Assessment of Cumulative Impacts in Cultural Heritage Management: A Critique. *Australian Archaeology,* 73: 88-91.

Godwin, L. & Weiner, J.F. 2006. Footprints of the Ancestors: the Convergence of Anthropological and Archaeological Perspectives in Contemporary Aboriginal Heritage Studies. In David, B., Barker, B & McNiven, I.J. (eds), *Social Archaeology of Australian Indigenous Societies*. Aboriginal Studies Press, Canberra.

Gollan, V. 1993. The Military Suppression of the Wanaruah Resistance in the Upper Hunter 1826. Mount Arthur and Surrounding Area. Unpublished Report to Wanaruah Lands Council.

Grant, C., 2012. Analogies and links between cultural and biological diversity. *Journal of Cultural Heritage Management and Sustainable Development,* **2**(2), pp. 153-163.

Gray, A. 2010. St Clair Mission. Accessed online April 2012 at www.australianmuseum.net.au/St-Clair-Mission/.

Green, J. 2003. *Anmatyerr Plant Stories: By the women from Laramba (Napperby) Community.* IAD Press, Alice Springs, NT.

Greer, S., Harrison, R. & McIntyre-Tamwoy, S., 2002. Community-based archaeology in Australia. *World Archaeology*, 34(2), 265-287.

Greer, S. 2010. Heritage and Empowerment: community based Indigenous cultural heritage in northern Australia. *International Journal of Heritage Studies*, 16:1-2, 45-58.

GSS Environmental, 2006. Project Plan for Stages 1-3 Yorks Creek Catchment Enhancement Project, Mt Owen Mine Hunter Valley, Final Report prepared by GSS Environmental Wamberal NSW for Xstrata Mt Owen Pty Ltd, August 2006.

GSS Environmental, 2007. Cultural landscape Remediation Plan, Yorks Creek Catchment Enhancement Project Mt Owen Mine, Hunter Valley. Final Report prepared by GSS Environmental Wamberal NSW for Xstrata Mt Owen Pty Ltd, January 2007.

Harris, B., James, D., Ohlsen, E., Griffiths, P. & Barker, C. 2000. *Pilaarrkiyalu of the Cobar Peneplain: Ngiyampaa Traditional Uses of Plants and Animals*. NSW national Parks & Wildlife Service, Sydney.

Harrison, R. 2004. *Shared landscapes: Archaeologies of Attachment and the Pastoral Industry in New South Wales.* University of New South Wales Press, Sydney, NSW.

Heffernan, K. & Klaver, J. 1997. Compartive assessment of existing and alternative archaeological conservation Zones, Bulga Mining Lease, Hunter Valley, NSW. Unpublished report to Bulga Coal Management Ltd.

Hiddins, L. 2003. *Bush Tucker Field Guide.* Explore Australia Publishing Pty Ltd, Prahran, Victoria.

Hirsch Hadorn, G., Hoffmann-Reim, H., Biber-Klem, S., Grossenbacher-Mansuy, W., Joye, D., Pohl, C., Weismann, U. & Zemp, E. 2008. (eds) *Handbook of Transdisciplinary Research,* Springer, pp.448.

HLA-Envirosciences Pty Limited, 2007. Aboriginal Heritage Assessment of Proposed Longwalls 10 and 11, United Collieries, Warkworth, NSW. Unpublished report prepared for United Collieries.

Hollaendar, K. Loibl, M.C. & Wilts, A. Chapter 25, Management. Chapter, Hadorn, G., Hoffmann-Reim, H., Biber-Klem, S., Grossenbacher-Mansuy, W., Joye, D., Pohl, C., Weismann, U. & Zemp, E. (eds), 2008. *Handbook of Transdisciplinary Research,* Springer, pp.385-397.

Hunter, C. 1997. 'Ravensworth a History' In EJE Architecture 'Ravensworth Homestead and Farm Complex – structural and material condition Report'. Unpublished report to Glendell Coal Joint Venture, August 1997.

Hunter Valley Coal Corporation, 2003. Environmental Impact Statement, Mt Owen Operations, Volume 3 Appendices 7 to 9. Unpublished EIS prepared by Hunter Valley Coal Corporation, Mt Owen.

Juluwarlu Aboriginal Corporation, 2003. *Wanggalili: Yindjibarndi & Nggarluma Plants. Juluwarlu, Aboriginal Corporation, Roebourne, WA.*

Karskens, G. 1985. "The grandest improvement in the country: An historical and archaeological study of the Great North Road, N.S.W., 1825-1836. Unpublished M.A. Thesis, University of Sydney.

Kijas, J. 2009. *There were always people here: a history of Yuraygir National Park.* Department of Environment, Climate Change and Water, Goulburn Street, Sydney.

Koettig, M. 1986. Test excavation at six locations along the proposed pipeline route between Glennies Creek Dam, Hunter Valley region, NSW. A report to the Public Works Department, NSW.

Koettig, M. 1987. Monitoring excavations at three locations along the Singleton to Glennies Creek pipeline route, Hunter Valley, NSW. A report to the Public Works Department, NSW.

Koettig, M. 1991. Survey and test excavations Bulga Lease Authorisation 219. Unpublished report to Saxonvale Coal Pty Ltd, August 1991.

Koettig, M. 1994. Bulga Lease Authorisation 219 Salvage Excavations, Vols. 1-5. Unpublished Report to Saxonvale Coa Pty Ltdl, July 1994.

Koettig, M. and Hughes, P. J. 1985. Archaeological Investigations at Plashett Dam, Mount Arthur North, and Mount Arthur South in the Hunter Valley. Vols 1 - 3. Unpublished report to the Electricity Commission of NSW and Mount Arthur South Coal Pty Ltd.

Kuskie, P. J. 2000. An Aboriginal Archaeological Assessment of the Proposed Mount Arthur North Coal Mine, Near Muswellbrook, Hunter Valley, New South Wales. Unpublished report to URS (Australia, Pty Ltd).

Kuskie, P. & Clarke, E. 2004. Salvage of Aboriginal heritage Sites in the Mount Arthur North Coal Mine Lease, Hunter Valley, New South Wales. Volumes, A-C. Unpublished report to BHP Billiton.

Lassak, E.V. & McCarthy, 2001. *Australian Medicinal Plants* Reed New Holland, Sydney Australia.

Latz, P. 1995. *Bushfires & Bushtucker: Aboriginal Plant Use in Central Australia*. IAD Press, Alice Springs.

Lee, I. 1925. *Early Explorers in Australia*. (From the Log-Books and Journals with maps and Illustrations). Methuen & Co Ltd, London.

Le Maistre, B. 1996. *The Wonorua Tribe, its Land and European Penetration of the Hunter.* Unpublished Report prepared for New South Wales Native Title Services.

Lester, R. 2012. Statement of Robert Lester 12 September 2012, in support of the Plains Clans of the Wonnarua People Native Title Application #2 (NNTT# NC12/4), Federal Court #NSD 1093/12, Unpublished statement to the Federal Native Title Tribunal, September 2012.

Lilley, I. & Williams, M. 2005. Archaeological and Indigenous Significance: A view from Australia. In Mathers, C., Darvill, T. and Little, B.J. (eds.), *Heritage of Value, Archaeology of Renown: Reshaping Archaeological Assessment and Significance*, pp. 227-247. University of Florida Press, Gainsville, Florida.

Lilley, L. 1987. Survey of Glennies Creek mine site. ANU Archaeological Consultants report to GCCM.

Lindsay, B.Y., Waliwararra. K., Miljat, F., Kuwarda, H., Pirak, R., Muyung, A., Pambany, E., Marruridji, J. Marrfurra, P. & Wightman, G. 2001. *Malamalak and Matngala Plants and Animals: Aboriginal flora and fauna knowledge from the Daly River area, northern Australia.* Northern Territory Botanical Bulletin No. 26. Parks & Wildlife Commission of the Northern Territory, Darwin.

Londey, P. 2013 *Indigenous Australian Servicemen.* Retrieved from <http://www.awm.gov.au/enclyopedia/aborigines/indigenous>

Low, T. 1991. *Wild Food Plants of Australia.* Harper Collins, Pymble, Sydney.

Marquis-Kyle, P. & Walker, M. 2004. *The illustrated Burra Charter: good practices for heritage places.* Australia ICOMOS, Inc. Canberra, ACT.

Maslin, B.R., Thomson, L.A.J., McDonald, M.W. & Hamilton-Brown, S. 1998. *Edible Wattle Seeds of Southern Australia: A review of species for use in Semi-arid Australia.* CSIRO Publishing, Collingwood, Victoria.

Mason, R. 2002. Assessing values in conservation planning: methodological issues and choices pp. 5-30, In de la Torre, M. (ed), *Assessing the Values of Cultural Heritage.* The Getty Conservation Institute, Los Angeles.

Mathews, R.H. 1893. Rock Paintings by the Aborigines in Caves on Bulgar Creek near Singleton. *Journal Royal Society of New South Wales*, 27: 353-358.

Mathews, R.H. 1918. Description of two Bora grounds of the Kamilaroi Tribe. *Journal* of Proceedings of the Royal Society of New South Wales, 51: 423: 430.

McBryde, I. 1978. *Records of Times Past: Ethnohistorical essays on the culture and ecology of the New England tribes*. Australian Institute of Aboriginal Studies, Canberra.

McCarthy, F. 1940. The Carved Trees of New South Wales. *Australian Museum Magazine*, 7(5): 161-166.

McCarthy, F. 1944a. Some unusual cylindro-conical stones from New South Wales and Java. *Records of the Australian Museum*, 21 (5): 257-260.

McCarthy, F. 1944b. The Windang, or edge-ground uniface pebble axe in Eastern Australia. *Records of the Australian Museum*, 21 (5): 261-263.

McCarthy, F. 1944c. Some unusual stone artefacts from Australia and New Guinea. *Records of the Australian Museum*, 21 (5): 264-266.

McCarthy, F. 1944d. Adzes and adze-like implements from eastern Australia. *Records of the Australian Museum*, 21 (5): 267-271.

McCarthy, F.D. and Davidson, F.A. 1943. The Elouera Industry of Singleton, Hunter River, New South Wales. *Records of the Australian Museum* 21: 210-230.

McDonald, J. 1997. The Bayswater archaeological research project: preliminary fieldwork report, Bayswater Colliery Company No. 3 lease, March - June 1997. *Report to Bayswater Colliery Company.*

McGuigan, A. 1983. Aboriginal Reserves in N.S.W.: A land Rights Research Aid: A listing from archival material of former Aboriginal Reserves together with information required to access them. New South Wales Ministry of Aboriginal Affairs, Occasional Paper No. 4, pp52.

Mckerney, M. & White, H. 2011. *Bush Tucker, Boomerangs & Bandages: Traditional Aboriginal Plant Use in the Border Rivers and Gwydir Catchments.* Border Rivers-Gwydir Catchment management Authority, Inverell, NSW.

Miller, J.B., James, K.W. & Maggiore, M.A. 1997. *Table of Composition of Australian Aboriginal Foods*. Aboriginal Studies Press, AIATSIS, Canberra, ACT.

Miller, R. **1886**. The Hunter River: The Wonnarua Tribe and Language in EM Curr, *Australian Race: its origin, languages, customs, place of landing in Australia, and the roots by which it spread itself over the continent,* 3 Vols, Melbourne, Government Printer, 1886/7

Millis, R. 1994. *Waterloo Creek: The Australia Day Massacre of 1838, George Gipps and the British Conquest of New South Wales.* University of New South Wales Press, Sydney.

Moore, D.R. 1969. The prehistory of the Hunter River Valley. *Australian Natural History*, March 1969: pp.166-171.

Moore, D.R. 1970. Results of an archaeological survey of the Hunter River Valley, New South Wales, Australia. Part 1. The Bondaian Industry of the Upper Hunter and Goulburn River Valleys. *Records of the Australian Museum 28(2): 25-64.*

Morris, B. 1994. Part 2: Anthropological Study: The Gumbaingirr Peoples of Corindi Beach. In Dallas, M & Morris, B. *Archaeological and Anthropological Study of an Option of the Corindi Beach Sewerage Scheme.* Unpublished Report to NSW Public Works Department, Coffs Harbour, September 1994.

Mount Pleasant Public School, NSW. 1988. *Two Valleys*. An account of what life was like in Carrowbrook and Goorangoola, Singleton district NSW from white settlement to 1988. Compiled by Mt Pleasant School as its contribution to the Bicentenary.

Murdoch, J. & Pratt, A.C. 1997. From the power of topography to the topography of power: A discourse on strange ruralities, pp. 51-69. In Cloke, P. & Little, J. (eds.), *Contested Countryside Cultures: Otherness Marginalisation and Rurality*. Routledge, London.

Navin, K. & Officer, K. 1992. Archaeological Survey: South Bulga Underground Coal Mine, NSW. UnpiblishedReport to Bulga Coal Management Ltd.

Navin K & Officer K. 1995a. Archaeological survey, Overburden Disposal Area, Bulga Coal Mine, NSW. Unpublished Report to Bulga Coal Management Ltd.

Navin K & Officer K. 1995b. The distribution of artefacts within a Hunter Valley, Central Lowland Creek Corridor: Test Excavations, Overburden Disposal Area, Bulga Coal Mine. Unpublished Report to Bulga Coal Management Ltd.

Noble, L. n.d. The Glennies Creek Story. The Hunter Valley Cancer Appeal Committee, Singleton.

Nussbaumer, Y, Castor, C. & Cole, M. 2012. Establishing Native Vegetation: principles and Interim Guidelines for Spoil Placement Areas and Restoration Lands. Centre for Sustainable Ecosystem Restoration, University of Newcastle, Australia, August 2012.

NSW Minerals Council Limited, 2011. *NSW Coal and Gas Strategy.* Final submission to the Department of Planning by the New South Wales Minerals Council, April 2011, pp. 51.

OEH, 2011a. *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW*. April, 2011. Office of Environment & Heritage, Department of Premier & Cabinet, Sydney.

OEH, 2011b. *Operational Policy: Protecting Aboriginal Cultural heritage*, Version 2, July 2011. Office of Environment & heritage, NSW, 59 Goulburn Street, Sydney.

OEH, 2011c. *Guide to Aboriginal Heritage Impact Permit Processes and Decision Making,* Version 2, August 2011. Office of Environment & Heritage, 59 Goulburn Street, Sydney.

OEH, 2011d. *"Pathways across the Hunter: a cultural journey…"* Office of Environment and Heritage, Bridge Street, Hurstville, NSW.

Oxley, J. 1825. Report of an expedition to survey Port Curtis, Moreton Bay and Port Bowen, with a view to form penal settlements there in pursuance of the recommendations of the Commissioner of Inquiry into the Colony of New South Wales. In Barron Field (ed), *Geographical memoirs on New South Wales: by various hands : together with other papers on the Aborigines, the geology, the botany, the timber, the astronomy, and the meteorology of New South Wales and Van Diemen's Land.* John Murray, London, pp. 1-26.

Peake, T. 2006. *The Vegetation of the Central Hunter Valley, New South Wales,* Vols. 1 & 2 (Version 2.2). Hunter-Central Rivers Catchment Management Authority, Paterson, NSW.

Pohl, C. 2008. From science to policy through transdisciplinary research. *Environmental Science and Policy,* 11:46-53.

Pohl C. & Hirsch Hadorn, G. 2008. Core Terms in Transdisciplinary Research. Chapter 28, In Hirsch Hadorn G. *et al.,* (eds) *Handbook of Transdisciplinary Research,* Springer, pp.427-432.

Puruntatameri, J., Puruntatameri, R., Pangiraminni, A., Burak, L., Tipuamantymirri, C., Tipakalippa, M., Puruntatameri, Jo., Puruntatameri, P., Pupangamirri, J.B., Kerinaiua, R., Tipiloura, D., Orsto, M-M., Kantilla, B., Kurrupuwu, M. Puruntatameri, P.F., Puruntatameri, T.D., Puruntatameri, L., Kantilla, K., Wilson, J., Cusack, J., Jackson, D. & Wightman, G. 2001. *Tiwi Plants & Animals.: Aboriginal flora and fauna knowledge from Melville & Bathurst Islands, north Australia.* Parks & Wildlife Commission of the Northern Territory & Tiwi and Council.

Radcliffe-Brown, A.R. 1929. Notes on Totemism in Eastern Australia. *The Journal of the Royal Anthropological Institute of Great Britain and Ireland,* 59:399-415.

Reepmeyer, C. Erofeev, T & Wesley, D. 2011. Urrmarning (Red Lily Dreaming): A case study for the application of non-destructive geochemical pXRF technique on rock art pigments. Paper Presented at the Australian

Archaeological Annual Conference 2011, Hosted by University of Southern Queensland, Toowoomba, December, 1-3 2011.

Ridley, W. 1864. The Aborigines of Australia: A Lecture. Delivered before the Young Men's Presbyterian Institute in the Free Church, Macquarie Street, Sydney, September, 1864.

Robinson, K.W. & Burley, T.M. 1962. Flood-plain farming on the Maitland flats, Hunter Valley, N.S.W. *Economic Geography*, 38(3): 234-250.

Rose, D.B. 1996. *Nourishing Terrains: Australian Aboriginal Views on Landscape and Wilderness*. Australian Heritage Commission, Canberra, ACT.

Rose, D., James, D. & Watson, C. 2003. *Indigenous kinship with the Natural World in New South Wales*. NSW National Parks & Wildlife Service, Hurstville, NSW.

Rose, D.B. 2004. *Reports from a Wild Country: ethics for decolonisation*. University of New South Wales Press, Sydney NSW.

Ross, A., Prangell, J. & Coghill, B. 2010. Archaeology cultural landscapes and indigenous knowledge in Australian cultural heritage management legislation and practice*. Heritage Management*, 3(1): 73-96.

Russel, A.W., Wickson, F. & Carew, A.L. 2008. Transdisciplinarity: Context, contradictions and capacity. *Futures,* 40: 460-472.

Rumsey, A. 1994. The Dreaming, human agency and inscriptive practice. *Oceania,* 65: 116-130.

Satterfield, T. 2002. Numbness and sensitivity in the elicitation of environmental values, pp.77- 100, In de la Torre, M. (ed). *Assessing the Values of Cultural Heritage.* The Getty Conservation Institute, Los Angeles.

Satterthwait, L. & Heather, A. 1987. Determinants of earth circle site location in the Moreton region, southeast Queensland, *Queensland Archaeological Research*, 4: 5-53.

Schnierer. S. Faulkner, A. & Fisher, C. 2001. *Aboriginal Cultural Values of the Native Vegetation of New South Wales. A Background Paper of the Native Vegetation Advisory Council of New South Wales. (Background paper No. 5)* Native Vegetation Advisory Council, Department of Land & Water Conservation, Sydney, NSW.

Singleton Argus, 1893. *Rock Paintings by Aborigines, Some curiosities in the Caves at Bulga.* Published Wednesday, 11 October, 1893, p.4. (Accessed online, 2012 at: http::://nla.gov.au/nla.news-article78701492).

Smith, A. & Beck, W. 2003. The archaeology of No man's land: indigenous camps at Corindi Beach, mid-north coast New South Wales, *Archaeology in Oceania*, 38(2): 66-72.

Smith, L. 2005. Archaeological significance and the governance of identity in cultural heritage management. In Mathers, C., Darvill, T. and Little, B.J. (eds.), *Heritage of Value, Archaeology of Renown: Reshaping Archaeological Assessment and Significance*, pp. 77-88. University of Florida Press, Gainsville, Florida.

Smith, L. & van der Meer, A. 2001. *Landscape and the negotiation of identity: A case study from Riversleigh, north-west Queensland.* In Cotter, M.M., Boyd, W.E. & Gardiner, J.E. 2001 (eds.), *Heritage Landscapes: Understanding Place & Communities,* Southern Cross University Press, Lismore NSW, pp. 51-63.

Smith, L., Morgan, A., an van der Meer, A. 2003. Community-driven research in cultural heritage management: the Waanyi women;s history project. *International Journal of Heritage Studies* 9(1), 65-80.

Steele, J.E. 1984. *Aboriginal pathways of Southeast Queensland*, University of Queensland Press, St Lucia Brisbane, Qld.

Stern, N. 1981. Salvage Excavation and Surface Collections at Nine Mile Creek, Saxonvale Coal Mine, Hunter Valley. Unpublished report to Central Engineering Division BHP, Pty Ltd, Sydney.

Stewart, K. & Percival, P. 1997. *Bush Foods of New South Wales: A botanical record and Aboriginal Oral History.* Royal Botanical Gardens, Sydney.

Stocks, M. 2012. Statement of Mrs Maria Stocks September 10 2012, in support of the Plains Clans of the Wonnarua People Native Title Application #2 (NNTT# NC12/4), Federal Court #NSD 1093/12, pp.14. Unpublished statement to the National Native Title Tribunal, September 2012.

Stuart, L. 1999. An Archaeological Survey of Proposed Rock Dump, Camberwell, NSW.

Sutton, P. **1995**. *Country: Aboriginal boundaries and land ownership in Australia.* Aboriginal History Monograph 3, ANU, Canberra.

The New Monthly Magazine, 1828. *Rambles in New South Wales, Letters I-V*. Vol. 22, pp. 236-247.

Threlkeld, L.E. c. 1828-1846. Unpublished Journal of Lancelot Edward Thelkeld, c. Dec 1828 c. Feb. 1846.

Thorpe, W.W., and McCarthy, F.D. 1933. Ethnological notes. No.5. *Records of the Australian Museum*, 19(1): 23-27.

Tindale, N.B. 1974. *Aboriginal Tribes of Australia: their terrain, environmental controls, distribution, limits and proper names*. University Of California Press, Berkley.

Tocomwall, Pty ltd, 2012a *Our Country. Our Culture. Our Values. The traditional, historical & contemporary cultural landscape of the Bulga Coal Optimisation Project Area: A Plains Clans of the Wonnarua Peoples Perspective*. Unpublished Confidential Report prepared for Xstrata Coal by Tocomwall Pty Ltd, Caringbah, NSW, December 2012.

Tocomwall Pty Ltd, 2012b. *Plains Clan of the Wonnarua People: Strategic Partnership Initiatives, Xstrata Partnership Program, Scoping the Potential.* Confidential Scoping Document prepared by Tocomwall Pty Ltd on behalf of the Plains Clans of the Wonnarua People.

Turner-Neale, M-M. (With John Henderson) 1996. *Bush Foods: Arrernte foods from Central Australia, Nhenhe-areye anwerne-arle arlkwene.* IAD Press, Alice Springs.

Ulm, S.G.F., Cotter, S.J., Cotter, M.M., Lilley, I., Clarkson, C. and Reid, J. (2005). Edge-ground hatchets on the Southern Curtis Coast, Central Queensland: A preliminary assessment of technology, chronology and provenance. In (ed.) *Many Exchanges: archaeology, history, community and the work of Isabel McBryde*.

Ulmwelt, 2012 Part 1 bettys Creek Salvage Program: Mount Owen Extension Area Surface and Subsurface Salvage under Section 90 Aboriginal Heritage Impact Permit #1762. Prepared by Umwelt (Australia Pty ltd) on behalf of Xstrata Mt Owen, November 2012.

Ward, R. 2012. Statement of Rhonda Ward 12 September 2012, in support of the Plains Clans of the Wonnarua People Native Title Application #2 (NNTT# NC12/4), Federal Court #NSD 1093/12, pp.14. Unpublished statement to the Federal Native Title Tribunal, September 2012.

Wambo Coal Pty Ltd, 2003; Wambo Development Project: Environmental Impact statement, Vol 1 Main Report + Appendices.

Wickson, F., Carew, A.L. & Russell, A.W. 2006. Transdisciplinary research: characteristics, quandaries and quality. *Futures,* 38: 1046-1059.

Wightman, G. & Brown, J. 1994. *Jawoyn, Plant Identikit. Common Useful Plants in the Katherine Area of Northern Australia.* Conservation Commission of the Northern Territory, (Darwin) & Jawoyn Association, (Katherine, NT).

Williams, A. & Sides, T. 2008. *Wiradjuri Plant Use in the Murrumbidgee Catchment.* Murrumbidgee Catchment Management Authority, Wagga Wagga, NSW.

Witter, D.2002. Ashton Coal Mining Project Environmental Impact Statement: Aboriginal Archaeology. *Report for HLA-Envirosciences Pty Ltd and White Mining Ltd.*

Wood W. A.1972. *Dawn in the Valley,* Wentworth Books, Sydney.

Xstrata Ravensworth North, 2012. Scope of Works: plains Clans of the Wonnarua people Aboriginal Cultural heritage Values Assessment of the Hillcrest Property Proposed offset, Ravensworth North Project. Unpublished Scope of work Document prepared by Xstrata Ravensworth North Pty Limited, 30 November, 2012.

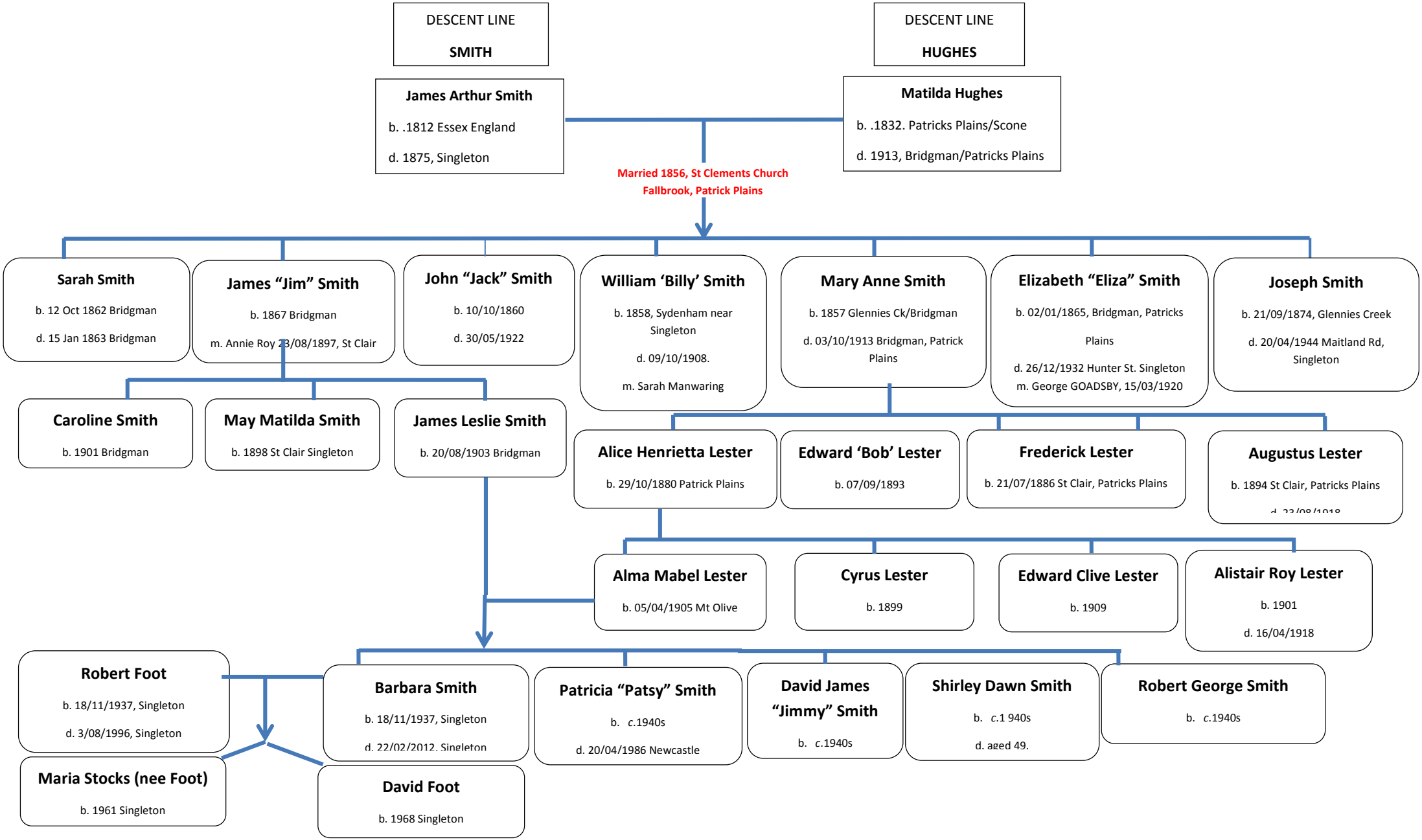
10.0 Attachments

Attachment 10.1

Statement of Mrs Maria Stocks September 10 2012
In support of
The *Plains Clans of the Wonnarua Peoples* Native Title Application #2 (NNTT# NC12/4),
Federal Court #NSD 1093/12.
(Attachments 'A' to 'D')

Attachment A:
Ancestry Chart of Maria Stocks

(Includes this and the following 1 page)


DESCENT LINE
SMITH
DESCENT LINE
HUGHES
James Arthur Smith
b. .1812 Essex England
d. 1875, Singleton
Matilda Hughes
b. .1832. Patricks Plains/Scone
d. 1913, Bridgman/Patricks Plains
Married 1856, St Clements Church
Fallbrook, Patrick Plains
Sarah Smith
b. 12 Oct 1862 Bridgman
d. 15 Jan 1863 Bridgman
James "Jim" Smith
b. 1867 Bridgman
m. Annie Roy 23/08/1897, St Clair
John "Jack" Smith
b. 10/10/1860
d. 30/05/1922
William 'Billy' Smith
b. 1858, Sydenham near Singleton
d. 09/10/1908.
m. Sarah Manwaring
Mary Anne Smith
b. 1857 Glennies Ck/Bridgman
d. 03/10/1913 Bridgman, Patrick Plains
Elizabeth "Eliza" Smith
b. 02/01/1865, Bridgman, Patricks Plains
d. 26/12/1932 Hunter St. Singleton
m. George GOADSBY, 15/03/1920
Joseph Smith
b. 21/09/1874, Glennies Creek
d. 20/04/1944 Maitland Rd, Singleton
Caroline Smith
b. 1901 Bridgman
May Matilda Smith
b. 1898 St Clair Singleton
James Leslie Smith
b. 20/08/1903 Bridgman
Alice Henrietta Lester
b. 29/10/1880 Patrick Plains
Edward 'Bob' Lester
b. 07/09/1893
Frederick Lester
b. 21/07/1886 St Clair, Patricks Plains
Augustus Lester
b. 1894 St Clair, Patricks Plains
Alma Mabel Lester
b. 05/04/1905 Mt Olive
Cyrus Lester
b. 1899
Edward Clive Lester
b. 1909
Alistair Roy Lester
b. 1901
d. 16/04/1918
Robert Foot
b. 18/11/1937, Singleton
d. 3/08/1996, Singleton
Barbara Smith
b. 18/11/1937, Singleton
Patricia "Patsy" Smith
b. c.1940s
d. 20/04/1986 Newcastle
David James "Jimmy" Smith
b. c.1940s
Shirley Dawn Smith
b. c.1 940s
d. aged 49.
Robert George Smith
b. c.1940s
Maria Stocks (nee Foot)
b. 1961 Singleton
David Foot
b. 1968 Singleton

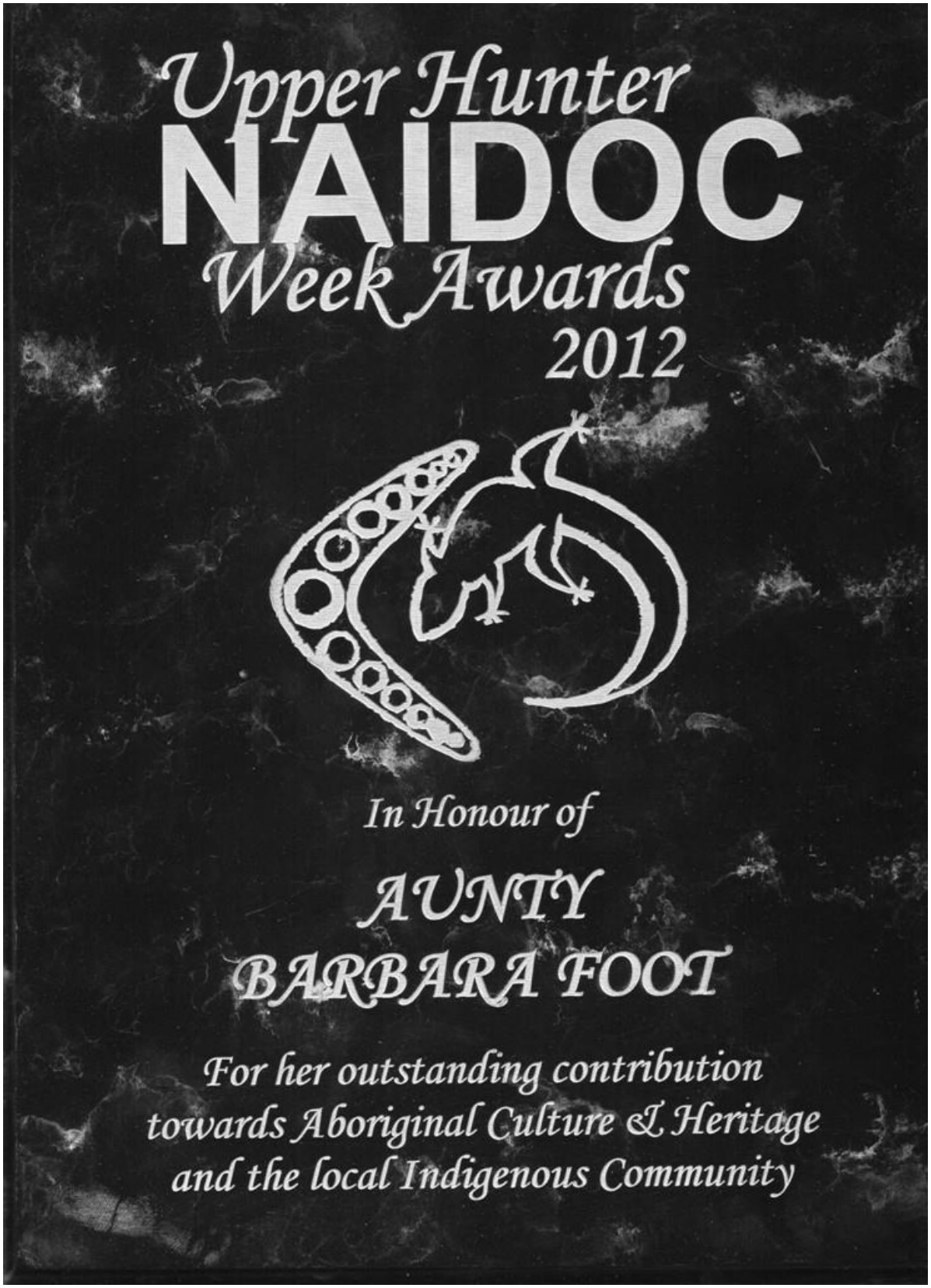
ATTACHMENT B:
Photograph of Barbara Foot holding Maria Stocks in arms c. 1962.
(Includes this and the following 1 page)



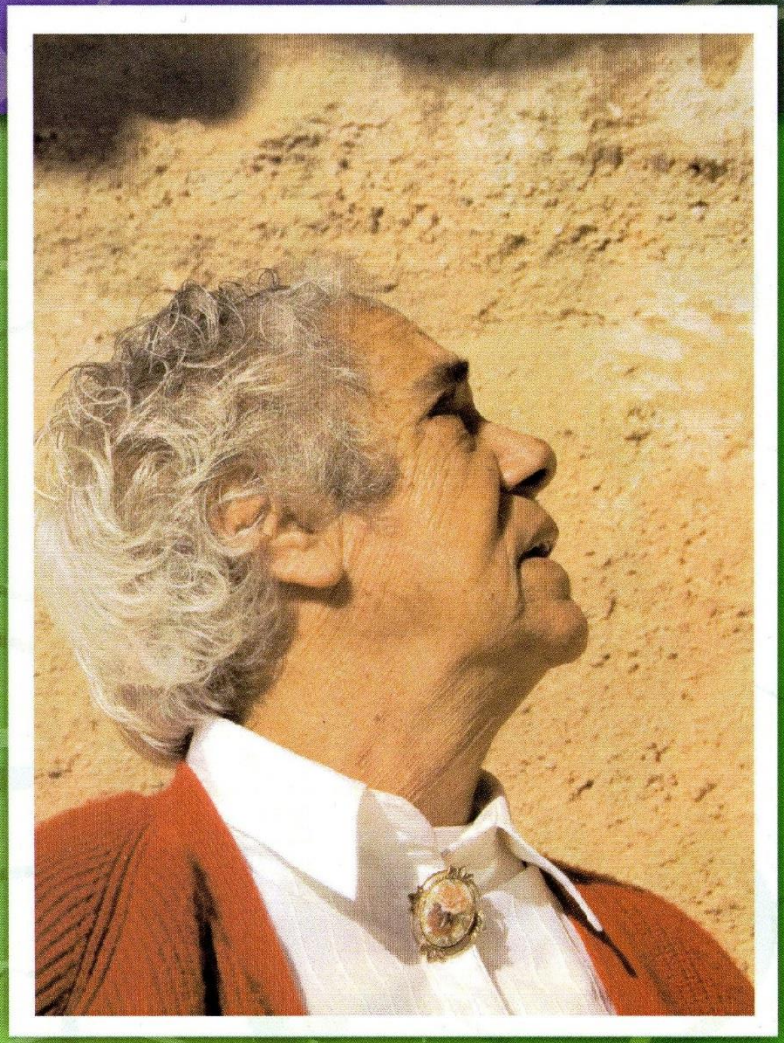
Photograph of Barbara Foot holding Maria Stocks in arms c. 1962

Attachment C:
Copies of Posthumous awards given to my mother Barbara Foot

(Includes this and the following 2 pages)


Upper Hunter
NAIDOC
Week Awards
2012
In Honour of
AUNTY
BARBARA FOOT
For her outstanding contribution
towards Aboriginal Culture & Heritage
and the local Indigenous Community

Barbara Foot



Barbara Foot receives her award posthumously.
She leaves a legacy of work with local Aboriginal people with her steadfast endurance to try and make a difference, promote change and correct past mistakes.
She was a founding member of Awabakal Co-Op, Wonaruah Lands Council and Ungaroo and worked on many committees and groups advocating for Aboriginal families and making submissions to the Government.
She wanted people to understand; she want people to treasure this land, she wanted people to respect each other, she wanted all people to be treated equally, she wanted people to acknowledge what had gone but importantly move onto a better future. She also had a dream that one day will certainly be fulfiled.
Barbara's dream of the Wonaruah Education Centre aims to provide every child in Singleton with the opportunity to learn the stories of the Wonaruah and this land. She wanted them to gain an appreciation for the culture and environment and a respect for all its creatures so they would grow up and protect its special places.

Attachment D

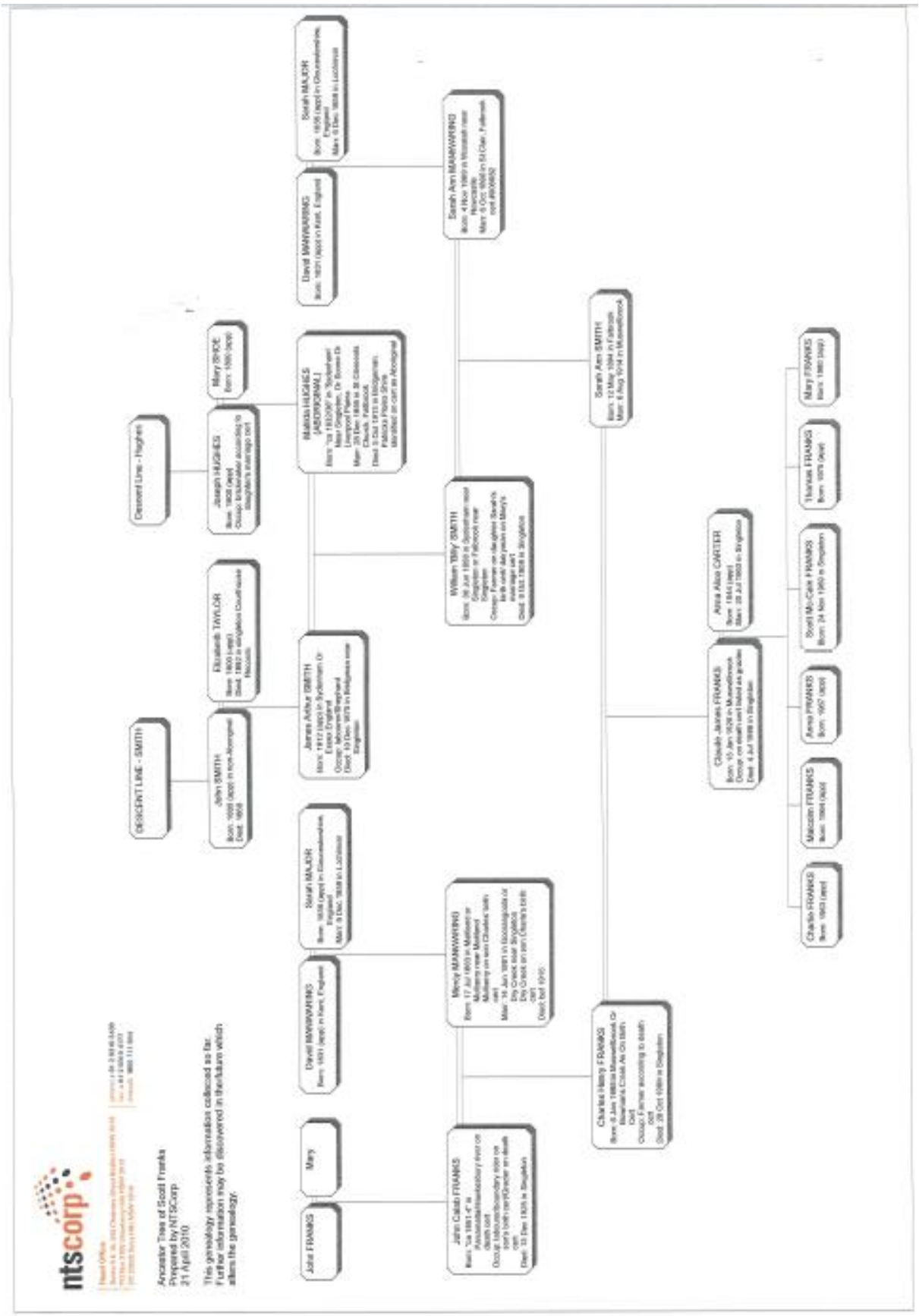
Cropped Photograph of my grandparents Alma Mabel and John Leslie Smith taken at Singleton Hospital in 1983.

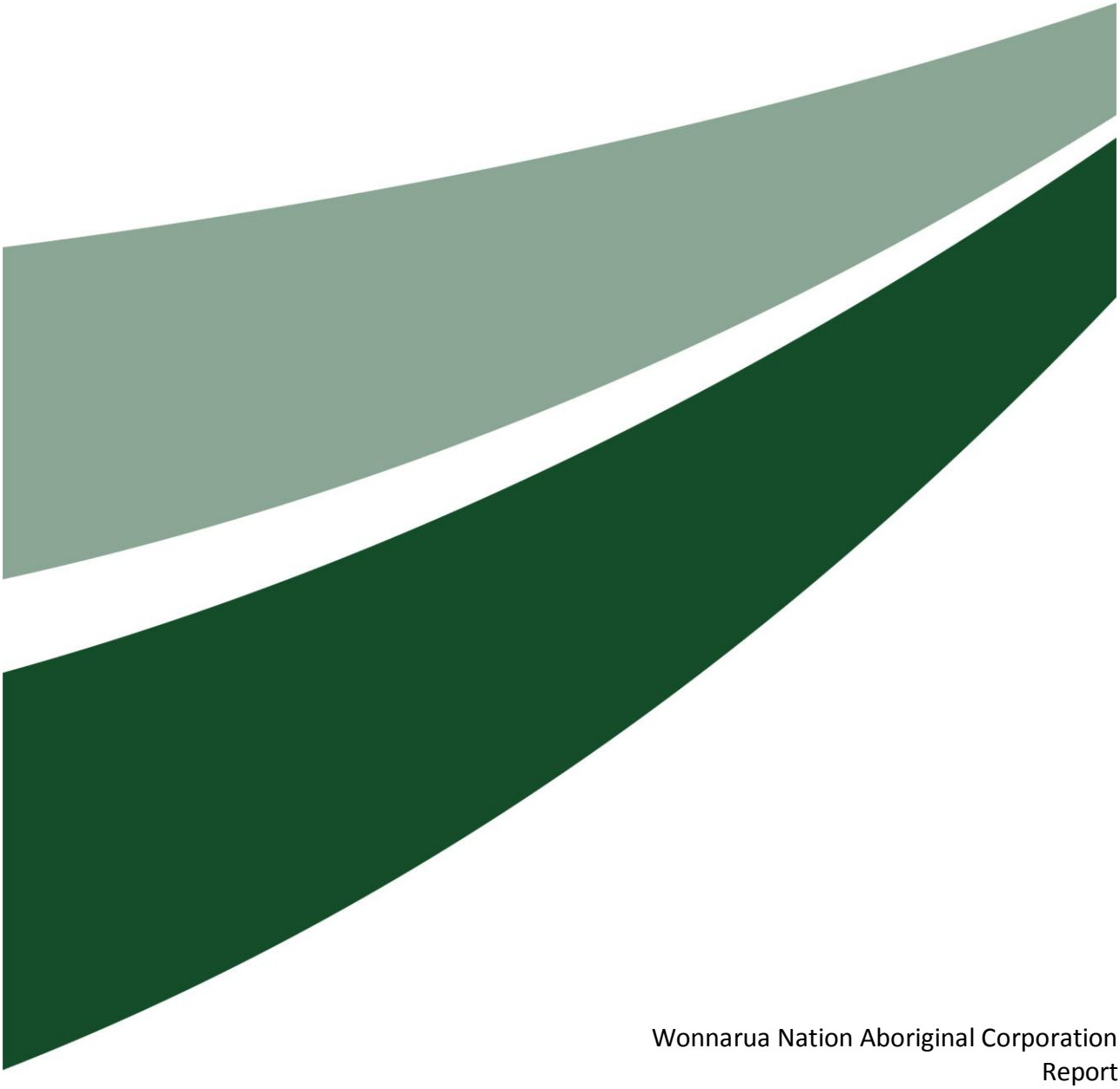
(Includes this and the following 1page)



Attachment 10.2

Ancestory Chart of Scott McCain Franks prepared by NtSCorp 21 April 2010





Wonnarua Nation Aboriginal Corporation
Report

WONNARUA CULTURAL HERITAGE ASSESSMENT

FOR

MT OWEN CONTINUED OPERATIONS PROJECT 2013

ABN: 50 012 829 925
Hunter Valley, Focus Area Ravensworth, NSW
June 2012

Victor Perry

Wonnarua Nation Aboriginal Corporation

On Behalf of the Wonnarua People – Sara Madoo descendants

EXECUTIVE SUMMARY

The Wonnarua Nation Aboriginal Corporation (WNAC or The Nation) is the representative body set up through the Corporations (Aboriginal and Torres Strait Islander) Act 2006 (CATSI Act) in response to the Commonwealth Native Title ACT 1993. The WNAC members are the descendants of the original Indigenous people with unbroken bloodline connections to the Hunter Valley. The WNAC is the corporate representative of the members of the claim group who are the descendants of Sarah Madoo and who are collectively recognised as the Wonnarua People.

The Wonnarua People have successfully negotiated four Native Title Agreements with Australian and international based mining companies in the greater Hunter Valley Region, including the Power Coal Indigenous Land Use Agreement 2001 which was one of the first ILUA's in Australia.

The current governing committee of the Wonnarua Nation were contacted by the project representatives for the Mt Owen Continued Operations project to discuss how, as a registered Native Title Claimants, the Wonnarua People could have input into a joint Cultural Heritage sub-mission by representing registered Aboriginal Stakeholders and members of the Wonnarua Nation.

Armed with this information, a process of internal consultation within the Wonnarua people was set up through the Governing Committee of the Wonnarua Nation. Wonnarua People with the relevant qualifications in report management could apply to the committee to provide their Experience, Knowledge and Qualifications in regards to writing up the Cultural Heritage Assessment Report.

Tracey Skene and Victor Perry, both Wonnarua descendants, were selected and given the task of providing the Cultural Heritage Report from male and female perspectives. Keith Rogers, who is the consultant for the Wonnarua Nation, was also asked to provide technical advice and other support for the project.

Under our scope of works for the Mount Owen Continued Operations (Mount Owen) project the descendants of the Wonnarua woman, Sara Madoo, were invited to develop a Cultural Heritage Assessment report. This request acknowledges the Wonnarua People as a claimant group recognised under Native Title. Therefore this report will provide for input from the Cultural Heritage Stakeholders who choose to have their views represented by the Wonnarua Nation. Stakeholders are Aboriginal people that have their own operating cultural heritage business, and who have registered for this project through the normal advertisement process provided by the current O.E.H. Guidelines.

The Cultural Values Assessment will provide the collective thoughts and opinions of the Wonnarua People in regard to what we consider as our Wonnarua Heritage within this project and region. A range of recommendations are also included to effect care and control of the areas to be impacted and put forward a range of measures that might be taken to achieve some form of equity for future generations to experience traditional culture, notwithstanding the cultural loss that might inevitable accompany this development.

These measures are contained within the tables that are presented towards the end of the body of the report.

This Assessment complies with the following legislation and policies:

NSW *Environmental Planning and Assessment Act 1979* (EPA&A Act);

Part 6 NSW *National Parks & Wildlife Act 1974* (NP&W Act) guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW

ACOMOS Burra Charter

DEC 2005 Draft aboriginal Consultation Guidelines.

ABBREVIATIONS

Term	Meaning
ACHAR	Aboriginal Cultural Heritage Assessment Report
ACHM	Australian Cultural Heritage Management Pty Ltd
AHIP	Aboriginal Heritage Impact Permit
EIS	Environmental Impact Statement
LALC	Local Aboriginal Land Council
Mt	Million(s) of Tonnes
Mtpa	Million(s) of Tonnes per annum
OEH	Office of Environment and Heritage
PCWP	Plains Clan of the Wonnarua People
PEA	Preliminary Environmental Assessment
RAP	Registered Aboriginal Party
ROM	Run of Mine
WP	Wonnarua People
WTC	Wonnarua Traditional Custodians
Mount Owen	Mt Owen Pty Ltd

CONTENTS

EXECUTIVE SUMMARY 2

ABBREVIATIONS 4

1. INTRODUCTION 8

1.1 Structure of the Report 8

1.2 Objectives of the ACHAR 8

1.3 Consultants 9

1.4 Project Overview 10

1.5 Environmental Assessment Requirements 11

1.6 Legislative Environment 14

1.6.1 Commonwealth Legislation 14

1.6.2 State Legislation 14

1.7 Objectives of Aboriginal Cultural heritage 15

2. DESCRIPTION OF THE ACTIVITY AREA 16

2.1 Environmental Overview 16

2.1.1 Topography / Landforms and Drainage 16

2.1.2 Soils 17

2.2 Geology 23

2.2.1 Geological Features 23

2.2.2 Coal Resources 23

2.2.3 Geological Structures 23

2.2.4 Vegetation 25

2.2.5 Historical Land Use and Approvals History 25

2.2.6 Pastoralism 25

2.2.7 Dairying 26

2.2.8 Agriculture 26

2.2.9 Viticulture 27

2.2.10 Mining 27

2.2.11 Mount Owen Mine 34

2.2.12 Ravensworth East 34

2.3 Background of Aboriginal sites in land 35
2.4 Past and Present Aboriginal land use 36

3. Aboriginal Community Consultation 37

3.1 Process Undertaken 37
3.1.1 Wonnarua People Consultation 37
3.1.2 Description of Consultation Process 37
3.1.3 Wonnarua People Inception Meeting Workshop 38
3.1.4 Documentation of Consultation - Inception Meeting 43
3.1.5 Fieldwork – Wonnarua Site Visits within Bulga Mine Site 44
3.1.6 Wonnarua People Second Workshop 45

4. Summary and Analysis of Background Information 48

4.1 Archaeological Assessment of Activity Area 48
4.2 Survey Results 49
4.2.1 Mount Owen North Pit Extension Area 49
4.2.2 Bettys Creek Area 49
4.2.3 Bowmans Creek 50
4.2.4 Test Excavation Program 50
4.2.5 Conclusions 50
4.3 Scientific Significance Assessment 51
4.4 Historical Information Relevant to the Project 56

5. Cultural Heritage Values and Significance Assessment 57

5.1 Nature of Cultural Significance 57
5.1.1 Aesthetic Value 57
5.1.2 Historic Value 57
5.1.3 Scientific Value 57
5.1.4 Social Value 58
5.2 Degree of Cultural Significance 58
5.2.1 Rarity 58
5.2.2 Representativeness 58
5.2.3 Condition, Integrity and Authenticity 58
5.3 Summary of Values 59
5.4 Assessing Significance 60
5.4.1 SOCIAL VALUES 60

5.4.2 HISTORIC VALUES 61
5.4.3 SCIENTIFIC VALUES 62
5.4.4 AESTHETIC VALUES 63
5.5 Statement of Cultural Significance 63
6. The Proposed Activity 64
6.1 The Proposed Project Summary 64
6.1.1 Project Key features 64
6.2 Project Rationale 65
6.3 Mining Area 66
Mining to the south of the Mount Owen North Pit 66
Mining, Rehabilitation and Final Landform 66
6.4 Infrastructure Areas 67
6.4.1 Areas not being further impacted 67
6.4.2 Areas disturbed in the Project 67
6.4.3 Proposed Rail Spur and Line Duplication 73
6.4.4 Proposed Rail Bridge spanning Bettys Creek 73
6.4.5 Proposed Rail Overpass and Bowmans Creek Bridge 73
6.5 Proposed Construction Timeframes and Staging 74
6.6 Assessment of Wonnarua Cultural Values 75
6.7 Identification of Potential Harm 75
7. Avoiding and Minimising Harm 76
8. Recommendations 77
8.1 Recommendation Summary 77
8.2 Mitigation of Direct Impacts 78
8.3 Recommendations to ensure Intergenerational Equity 78
8.1 Recommendations for Care & Control 79
9. Glossary 81
10. Appendices 90
10.1 Archaeological Methods and Summary Reports **Error! Bookmark not defined.**

1. INTRODUCTION

The Mount Owen Complex is located within the Hunter Coalfields in the Upper Hunter Valley of New South Wales (NSW), approximately 20 kilometres north-west of Singleton, 24 kilometres south-east of Muswellbrook and to the north of Camberwell village (See Map 1-1, below).

Coal mining operations have been undertaken in the Mount Owen Complex area for more than 20 years. Xstrata Coal Australia Pty Ltd currently owns the three open cut operations in the Mount Owen Complex - these are the Mount Owen (North Pit), Ravensworth East (West and RERR Pits) and Glendell Mines (Barrett Pit).

The mining operations at the Mount Owen Complex include the integrated use of the Mount Owen coal handling and preparation plant (CHPP), coal stockpiles and rail load-out facility (See Map 1-2 below).

The Mount Owen North Pit and associated infrastructure is managed by Mount Owen Pty Limited (Mount Owen) and is currently operated under contract by Thiess Pty Limited (Thiess). The Mount Owen North Pit has an approved production rate of 10 million tonnes per annum (Mtpa) of run of mine (ROM) coal, and after being blended with Ravensworth East and Glendell ROM coal, feed the Mount Owen Complex CHPP and associated infrastructure which has a total approved processing capacity of 15 Mtpa of ROM coal. Processed coal (both semi soft and thermal coals) is transported by rail to Newcastle for export via the Mount Owen Rail Loop.

Mount Owen) expect, subject to market conditions, that mining will be completed within the currently approved area of the Mount Owen North Pit and the Ravensworth East mining area by 2018, and Glendell by 2022.

Over the last few years, Mount Owen) has been reviewing plans for the future of the Mount Owen Complex. Mount Owen) has undertaken open cut exploration of its owned mining tenements as part of the feasibility planning studies and identified substantial additional mineable coal resources to the south of the currently approved Mount Owen North Pit mining limit.

Mount Owen) is seeking development consent for the Mount Owen Continued Operations Project (the Project), to extract these additional mineable resources through open cut mining methods.

This Aboriginal Cultural Heritage Assessment Report (ACHAR) forms part of an Environmental Impact Statement (EIS) prepared for the Project.

1.1 Structure of the Report

This report follows the suggested format provided by the Department of Environment and Heritage in the Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW.

1.2 Objectives of the ACHAR

The objectives of this report are to:

a) present the Wonnarua People's consultation methodologies and processes and
b) report on the results of those Wonnarua People consultations. The purpose of the community consultation program is to ensure that Wonnarua aboriginal people have the opportunity to improve the outcomes of the assessment by:
    i) providing relevant information about the cultural significance and values of the Aboriginal object(s) and/or place(s) within the Project area;
    ii) influencing the design of the method to assess cultural and scientific significance of Aboriginal object(s) and/or place(s) within the disturbance area of the Project Area;

iii) actively contributing to the development of cultural heritage management options and recommendations for any Aboriginal object(s) and/or place(s) within the disturbance area of the Project Area; and
iv) commenting on draft assessment reports before they are submitted by the proponent to the Office of Environment and Heritage (OEH).

1.3 Consultants

A number of consultants have been involved in the preparation of this report.

Table 1-1: Consultants engaged in the report process.

Consultant	Inputs
ACHM	Cultural Values Recording, Consultation workshops, Significance Assessment, Report compilation
OzArk EHM	Archaeological survey, excavation and reporting

Alongside the consultants noted in Table 1-1, Glencore personnel have also provided extensive amounts of information for the final report.

The roles of the various consultants who have been involved in this Project are explained in detail in Section 3 of this report.

The following Consultants have been involved in the creation of this report for the Wonnarua People:

- Keith Rogers Consulting has also assisted in the project management for this report
- Victor Perry (Lead Consultant)
- Tracey Skene
- James Miller

1.4 Project Overview

Mount Owen has undertaken an exploration program within its mining tenements to the south of the Mount Owen North Pit at Mount Owen Mine which has identified significant additional mineable coal tonnes. The Mount Owen Continued Operations Project (the Project), will seek approval to continue mining of the Mount Owen North Pit to the south of the current approved pit limit.(See Map 1-2).

Table 1-2: Key features of the proposed Project.

Key Feature	Proposed Operations
Mine Life	Consent will be sought for 21 years (from date of Project Approval) to provide for mining until approximately 2030 and contingency for other activities such as rehabilitation and tailings dam capping.
Limits on Extraction	No change in extraction rate for the proposed Mount Owen North Pit continuation or Ravensworth East operations.
Mine Footprint	Extension of mine footprint to the south of current approved Mount Owen North Pit.
	Mining depths to approximately 300m below ground level.
	Total additional mineable coal tonnes of approximately 80 Mt ROM (Mount Owen North Pit)
Operating Hours	No change proposed.
Number of Employees	Current personnel required to operate Mount Owen North Pit and CHPP is approximately 660. No significant change to personnel numbers required.
	No change to Ravensworth East personnel numbers required.
	Addition of approximately 330 personnel for construction phase for proposed infrastructure works (approximately 18 months).
Mining Methods	No change to mining method proposed.
Mount Owen CHPP	Increase CHPP processing and load-out capacity by 2 Mtpa to 17 Mtpa ROM coal.
Crushing Plant	Utilisation of the existing crushing plant for the crushing of overburden.
Construction Activities	Infrastructure upgrades including: provision for a northern rail line turn-out and new rail line; product stockpile extension; CHPP improvements to increase processing and tailings management; MIA extensions and improvements; Hebden Road overpass over Main Northern Rail Line; and New Hebden Road bridge crossing over Bowmans Creek;
Tailings Emplacement	Continued use of the West Pit and RERR mining area for tailings emplacement and emplacement of coarse reject, plus in-pit disposal within the North Pit.
Coal Transportation	No change to current export coal transportation with the exception of the use of the proposed rail line; Transportation of up to 2 Mtpa ROM coal and crushed gravel on an as needs basis via the existing overland conveyor to Liddell Coal Operations and the RCT in addition to maintaining the current approval to transport ROM coal to Bayswater and Liddell power stations.

The key features of the Project are outlined in Table 1-2.

Maps 1-1 and 1-2 also shows the location and the general layout of the Project.

This Project Area encompasses the current approved development consent areas for Mount Owen and Ravensworth East in addition to the areas associated with the proposed rail augmentation and Hebden Road works, and is shown in Map 1-2. The total proposed disturbance area is within the Project Area.

The Project will enable extraction of approximately 80 million tonnes (Mt) ROM of additional minable coal beyond the currently approved pit shell. These additional mineable coal tonnes would extend the mine life from the currently projected 2018 to approximately 2030.

The Project proposes to disturb approximate 360 hectare for the extension of the Mount Owen North Pit in a southerly direction (from the current approved Mount Owen North pit shell);

The Project's Infrastructure proposed upgrades, will disturb 104hectares, including:

- Provision for a northern rail line turn-out and new rail line;
- Hebden Road overpass over Main Northern Rail Line; and
- New Hebden Road bridge crossing over Bowmans Creek;
- Product stockpile extension;
- MIA extensions and improvements

No changes are proposed to the approved Glendell mining operations.

1.5 Environmental Assessment Requirements

The Project is defined as a State Significant Development under SEPP (State and Regional Development) 2011, and as such, MOCO is seeking development consent under the EP&A Act.

Specific to the assessment of Aboriginal cultural heritage impacts the DGRs state that the EIS must include:

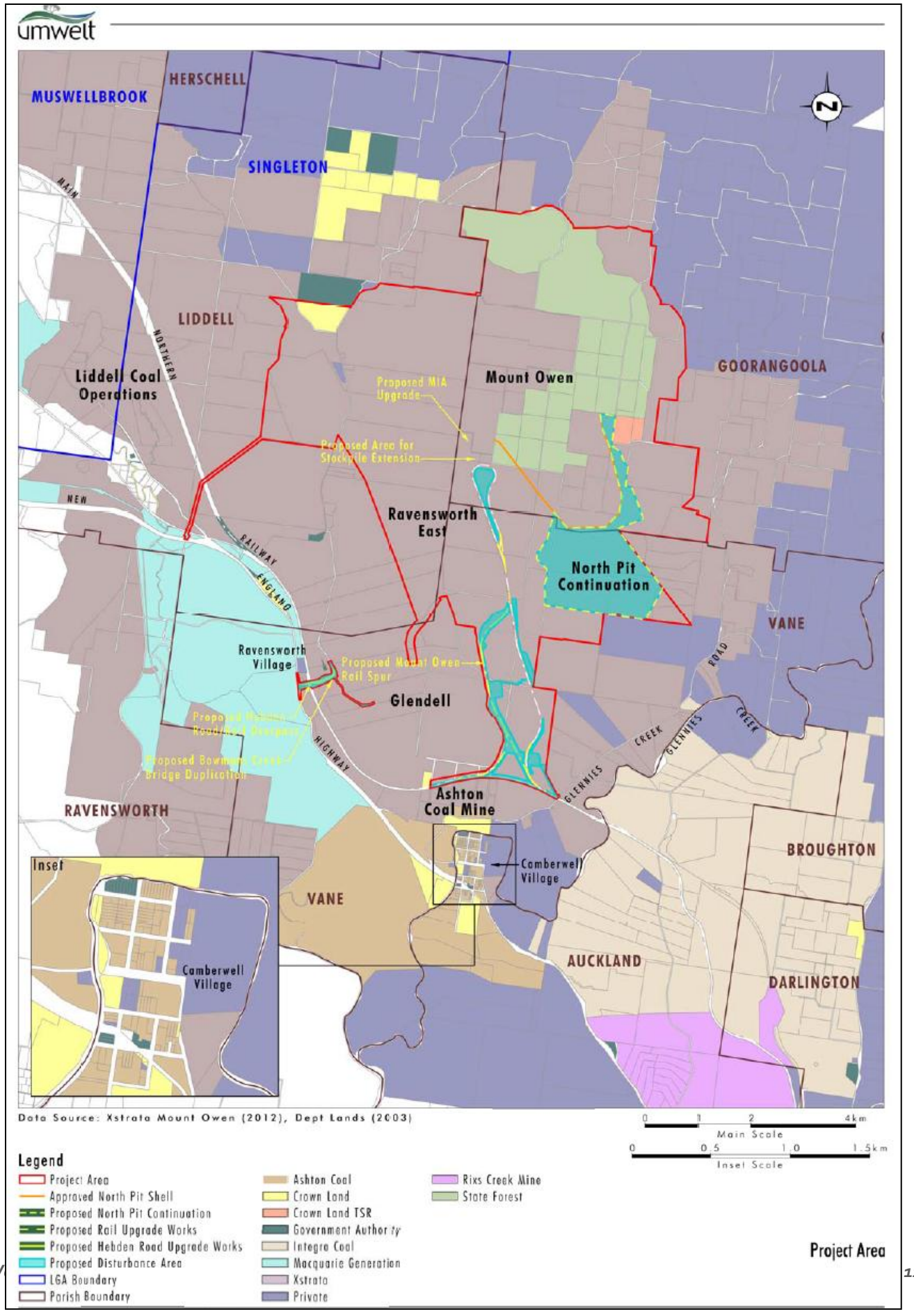
- an Aboriginal cultural heritage assessment (including both cultural and archaeological significance) which must:
- demonstrate effective consultation with Aboriginal communities in determining and assessing impacts, and developing and selecting mitigation options and measures; and
- outline any proposed impact mitigation and management measures (including an evaluation of the effectiveness and reliability of the measures);

The DGRs also state that the Aboriginal cultural heritage assessment is to be prepared taking into account the Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation (DEC 2005) and The Burra Charter (Australia ICOMOS 1999).

The ACHA addresses the current guidelines Aboriginal cultural heritage consultation requirements for proponents (DECCW 2010a), Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (OEH 2011) to inform consultation and assessment.

The following sections present the Commonwealth and State statutory controls that provide legal protection for Aboriginal cultural heritage in NSW, and that identify the approval processes for any proposed Project that seeks to impact Aboriginal cultural heritage places and objects.

Map 1-1: General locality of the Mt Owen Continued Operations Project area.



Map 1-2: Project Area



Locality Plan

File Name (A4): ACHC/3109_414.dgn
20130423 15.09

1.6 Legislative Environment

The following sections present the Commonwealth and State statutory controls that provide legal protection for Aboriginal cultural heritage in NSW, and that identify the approval processes for any proposed Project that seeks to impact Aboriginal cultural heritage places and objects.

1.6.1 Commonwealth Legislation

Environmental Protection and Biodiversity Conservation Act 1999

The Environmental Protection and Biodiversity Conservation Act 1999 (the EPBC Act) protects matters of national environmental significance. The EPBC Act lists eight matters of National Environmental Significance (MNES), which include world heritage sites and national heritage places, and provides for the establishment and maintenance of the National Heritage List (a list of Australia's most valued natural, Indigenous and historic heritage sites) and the Commonwealth Heritage List (a list of places of natural and cultural significance located on lands owned or controlled by the Australian Government). The EPBC Act is not directly relevant to this report.

Aboriginal and Torres Strait Islander Heritage Protection Act 1984

The Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (the ATSIHP Act) provides for the declaration by the Minister for the protection of Aboriginal cultural heritage of particular significance to Indigenous Australians, generally in circumstances where State or Territory laws fail to do so. The power to make declarations is meant to be used as a last resort, after the relevant processes of the state or territory have been exhausted; no declarations have been made under the ATSIHP Act in relation to the Project area.

Native Title Act 1993

The *Native Title Act 1993* provides for the recognition and determination of native title in Australia, processes for how future activity can proceed on native title land, and to provide compensation where native title is impaired or extinguished.

NT Act processes for the purposes of the Project are not dealt with in this report, though there are no areas potentially subject to Native Title in the Project Area, and native title has been extinguished.

Protection of Movable Cultural Heritage Act 1986

The *Protection of Movable Cultural Heritage Act 1986 (the PMCH Act) implements Australia's obligations under the* UNESCO *Convention on the Means of Prohibiting the Illicit Import, Export and Transfer of Ownership of Cultural Property. Under the PMCH Act it is* unlawful to export a 'protected object' from Australia without a certificate or permit from the Environment Minister. The PMCH Act is not directly relevant to this report.

1.6.2 State Legislation

Environmental Planning and Assessment Act 1979

The Environmental Planning and Assessment Act 1979 (EP&A Act) is the main piece of legislation regulating land use in NSW.

The Act is administered by the Department of Planning and Infrastructure (DP&I) and guides the process of land development, including the assessment and management of cultural heritage impacts.

Coal mining is State Significant Development, and the Minister for Planning and Infrastructure is the consent authority for it. Applications for approval of State Significant Development are made under Part 4 of the EP&A

Act. As the Project is State Significant Development, BCM is seeking Part 4 development consent for the Project.

This Aboriginal Cultural Heritage Assessment, including the Aboriginal Archaeological Values Assessment, has been prepared in accordance with DGR's identified by the DP&I.

National Parks & Wildlife Act 1974

The National Parks & Wildlife Act 1974 (NP&W Act) is the primary law in NSW that provides protection for Aboriginal cultural heritage. The Act is administered by the Office of Environment and Heritage (OEH), within the Department of Premier and Cabinet NSW.

Under section 86(1) and 86(4) of the Act, it is an offence to harm an Aboriginal object or an Aboriginal place. The NP&W Act provides for a number of defences to prosecution for harming Aboriginal objects or places including that the person harmed the object or place in accordance with an Aboriginal Heritage Impact Permit (AHIP) or that the person exercised due diligence.

Under section 89J of the EP&A Act, an AHIP is not required, and the NP&W Act provisions prohibiting harm to Aboriginal objects and places are not applicable, to State Significant Development that is authorised by development consent.

Heritage Act 1977

The Heritage Act 1977 provides for the protection of natural, cultural and built heritage that are of State or local heritage significance in NSW, through the register of heritage places or items on the State Heritage Register and the making of interim heritage orders and emergency orders to protect heritage items or places at risk.

Interim heritage orders do not apply to State Significant Development under the EP&A Act. Moreover, a Historic Heritage Assessment has been undertaken by Umwelt Pty Limited, and no sites/items with any form of heritage listing were identified within the Project Area.

1.7 Objectives of Aboriginal Cultural heritage

The objectives of our report is to provide information regarding Wonnarua places of significance for the current descendants of the Wonnarua people connected to Sarah Madoo, our report will also allow us to discuss the proposed development and any affects this may or may not have on our Tribal culture in our homeland.

There are certain Government requirements that allow for consultation with all parties, regarding certain state significant projects such as coal mining. This report allows us to have a collective voice in the overall process.

Other objectives that we may provide may be based around what we wish to recommend to the developer if these areas are impacted upon by mining, what will happen to any artefacts removed and any cultural information that we see will need to be recorded regarding Wonnarua culture in the lease area.

2. DESCRIPTION OF THE ACTIVITY AREA

The Project area (See Map 2-1) is located within the Hunter Coalfields in the Upper Hunter Valley of New South Wales (NSW). It is situated within a regional area primarily surrounded by other mining operations, existing mine related biodiversity offset areas, State Forest and rural and rural residential landholdings. The Project area is within close proximity to other mining operations, including Glendell Coal Operations to the south, Liddell Coal Operations to the north-west, Ravensworth Operations to the south-west, Integra Mine to the south-east and the Ashton Mine to the south. The Project area is located within the Singleton Local Government Area and within the Parishes of Vane and Goorangoola.

Glencore or its subsidiaries own all the land within the proposed disturbance area and large areas of land within the surrounding area for mining operations and associated buffer land (See Map 2-2). The Ravensworth State Forest is located within the north-eastern corner of the Project Area, adjoining previously mined and rehabilitated areas, and is not proposed to be disturbed as part of this Project.

Camberwell Village is located approximately 4.5km south of the proposed Mount Owen North Pit continuation's southern limit.

Land to the south and south-east of the Project Area is owned by Ashton Coal Mines Pty Limited, associated with the Ashton Coal Project and Integra Coal associated with Integra open cut and underground Mines.

RHA Pastoral Company Pty Ltd is affiliated with Integra Coal and own large areas of land surrounding the Integra Mining operations. Land to the west and south-west of the Project Area is predominantly owned by Xstrata and Macquarie Generation (See Map 2-1).

Mining is the largest presence within the local area with a large proportion of the surrounding properties owned by mining companies.

2.1 Environmental Overview

2.1.1 Topography / Landforms and Drainage

The topography of the Project Area is characterised by an undulating and hilly landscape extending to lower areas associated with the waterways that traverse the Project Area. A notable topographical feature is a ridgeline extending north-south to the east of the Project Area. This ridgeline is the predominant topographical feature and extends to a height of approximately 360 mAHD (See Map 2-3). Extending further north-east of the Project Area the terrain becomes more undulating and hilly.

The Project Area is located within both the Bowmans Creek and Main Creek catchments. Bowmans Creek is a tributary of the Hunter River. The proposed disturbance area is primarily located within the Main Creek Catchment and also two sub-catchments of Bowmans Creek, namely Swamp Creek and Bettys Creek. Areas associated with the alluvial plains of Bettys Creek, Main Creek and the Hunter River, are generally flat to gently sloping.

With the exception of the works associated with the proposed Hebden Road bridge crossing of Bowmans Creek and the rail augmentation across Bettys Creek the proposed disturbance area will not directly impact the surrounding waterways. The ephemeral systems of Bettys Creek and Swamp Creek flow through the Project Area to the south west of the proposed disturbance area, before flowing into Bowmans Creek. Main Creek flows for a short section to the east of the proposed disturbance area through the eastern side of the Project Area and then into Glennies Creek south of the Project Area. Bowmans Creek intersects the western extent of the existing Mount Owen Complex and continues south and joins the Hunter River approximately 4 kilometres downstream of the Project Area (See Map 2-1).

2.1.2 Soils

The soil landscapes occurring within the existing Mount Owen Complex are mapped on the Singleton 1:250,000 Soil Landscapes Map Sheet (Kovac and Lawrie 1991). As illustrated in

Map 2-4, there are three soil landscapes which occur within the proposed disturbance area with the Bayswater Soil Landscape the dominant soil type, which is susceptible to moderate sheet and gully erosion on slopes. Salt scalds and associated erosion are also common in some areas. Soils within this soil landscape have low fertility, are typically moderately well drained and have a moderate water-holding capacity. Soil pH varies between 5.5 and 7.0 and mass movement hazard is low.

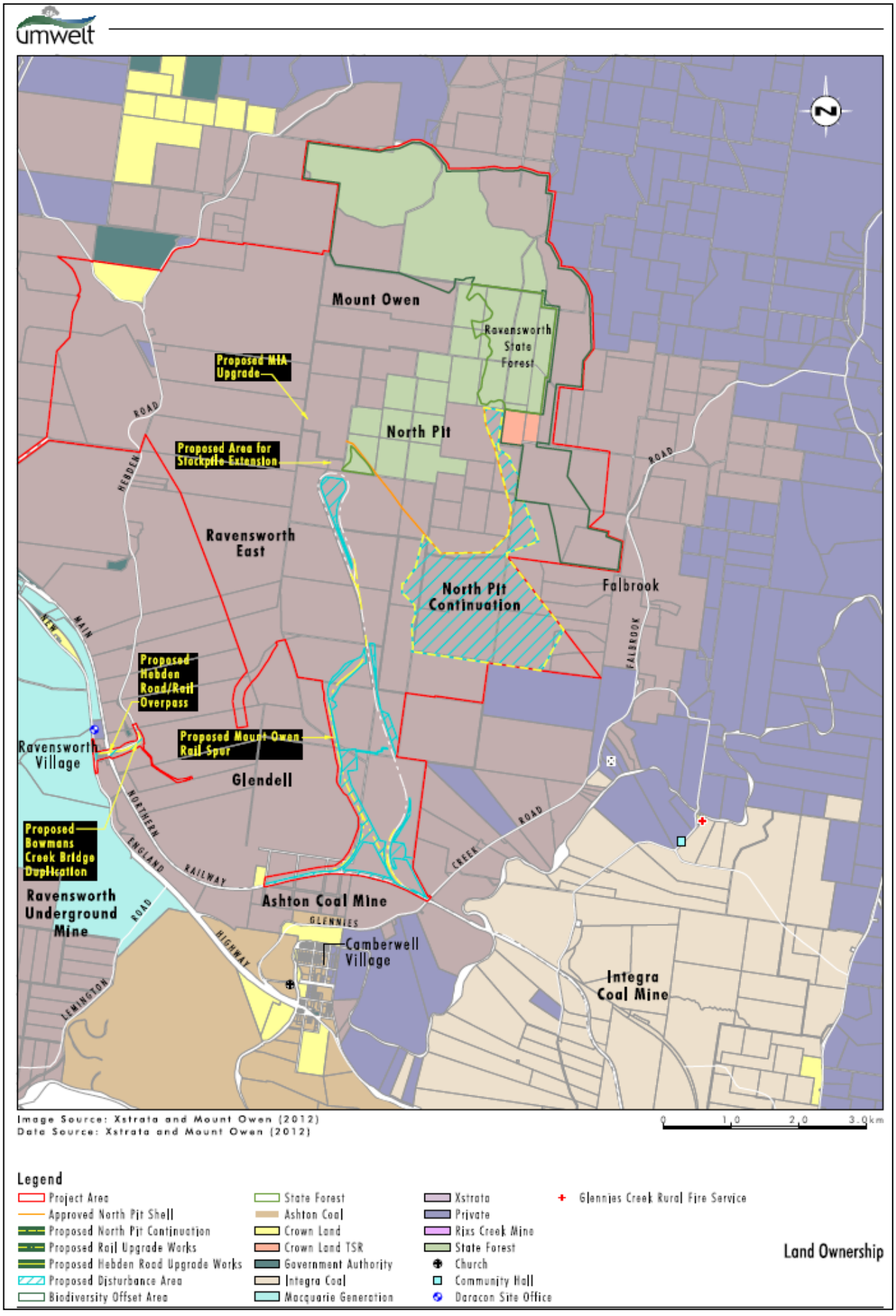
The Hunter and Lambs Valley soil landscape occurs within a small portion of the proposed disturbance area associated with the proposed rail over pass over the Main Northern Rail Line and the proposed Bowmans Creek Bridge works. Hunter soil landscape is susceptible to erosion along stream banks with minor sheet erosion on the adjacent terraces. The soils within this landscape vary between moderately and rapidly draining with moderate fertility levels.

The Lambs Valley soil landscape is susceptible to moderate topsoil erosion and are a high to very high erosion hazard. Both soil types are imperfectly drained with low fertility levels. The geology underlying the Project Area is comprised of Permian period Wittingham Coal Measures, within the Jerrys Plains subgroup. The Jerrys Plains subgroup contains coal seams, claystone, tuff, siltstone, sandstone and conglomerate. The underlying sandstones and conglomerates are frequently exposed in areas of heavy erosion, notably in Bettys Creek and some of the more incised tributaries.

Map 2-1:Proposed Mt Owen Continued Operations Project.



Map 2-2: Land Ownership.



Map 2-3: Topography of the Project area and surrounds

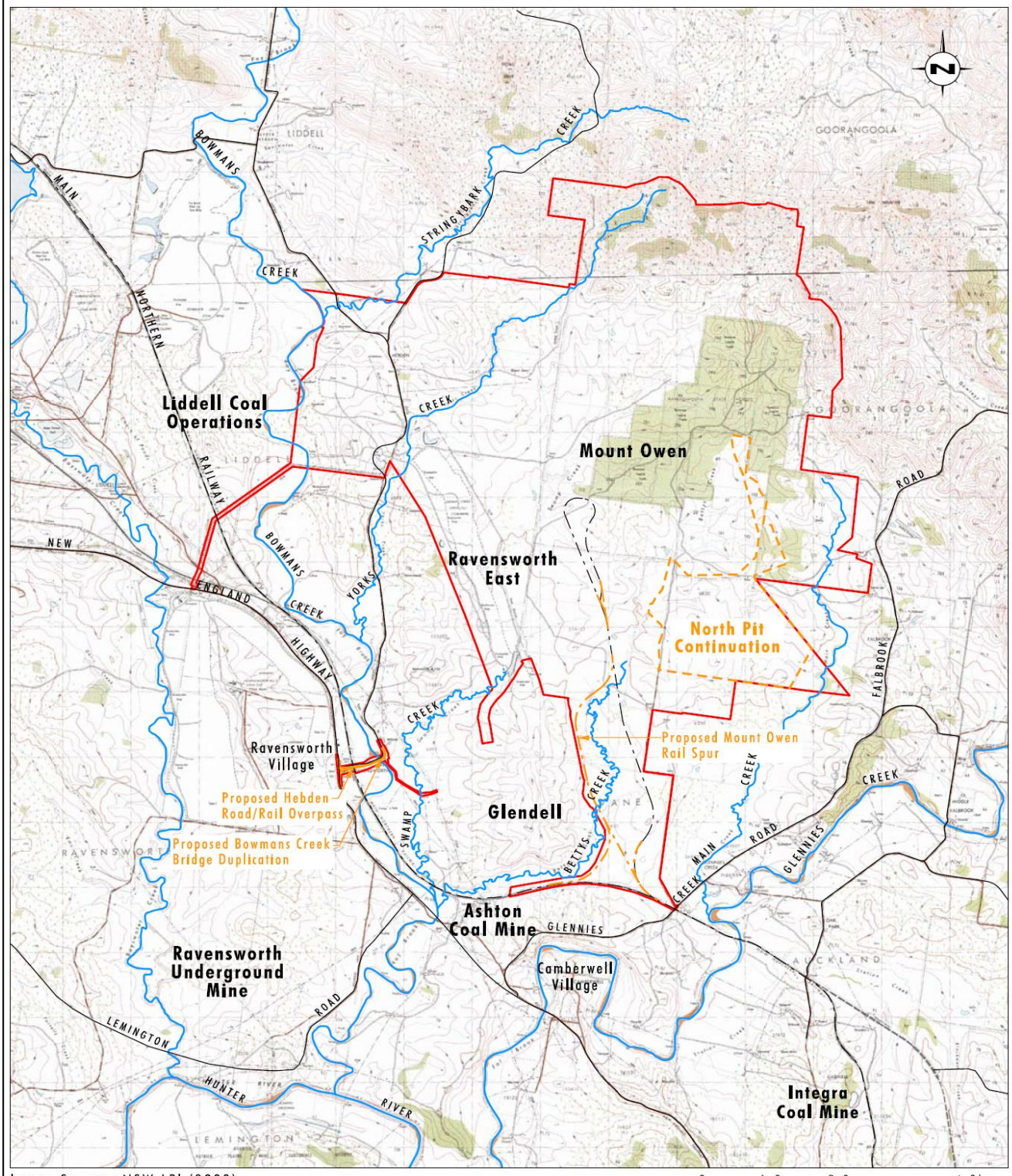


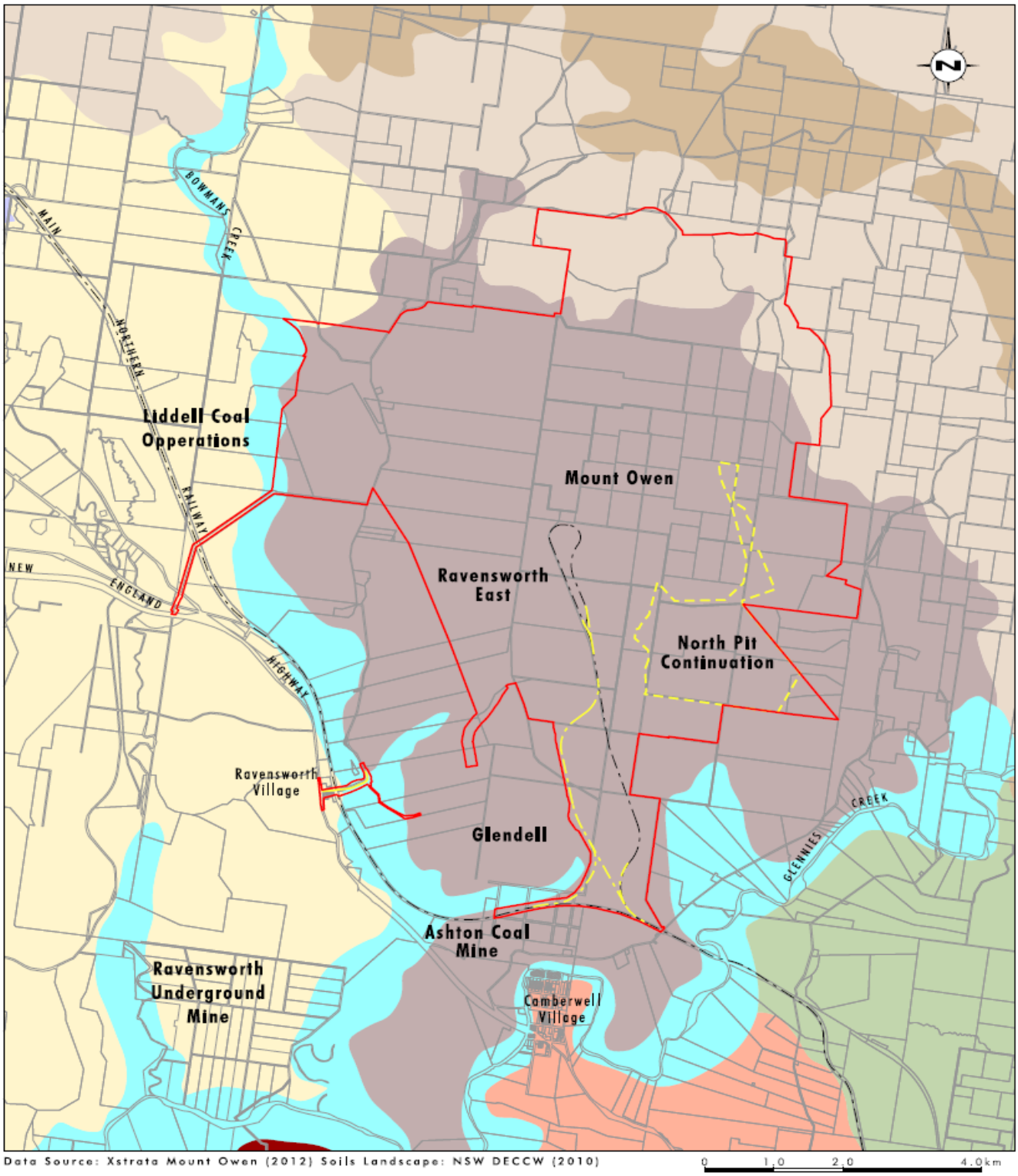
Image Source: NSW LPI (2000)
Data Source: Xstrata Mount Owen (2012) and Department of Lands (2006)

0 1.0 2.0 4.0km

Legend
- Project Area
- Drainage Line
- Proposed North Pit Continuation
- Rail Upgrade Works
- Hebden Road Upgrade Works

Topography of Mount Owen Complex and Surrounds

Map 2-4: Soil systems within the Project area and surrounds



Map 2-5: Vegetation communities within the Project area and surrounds.

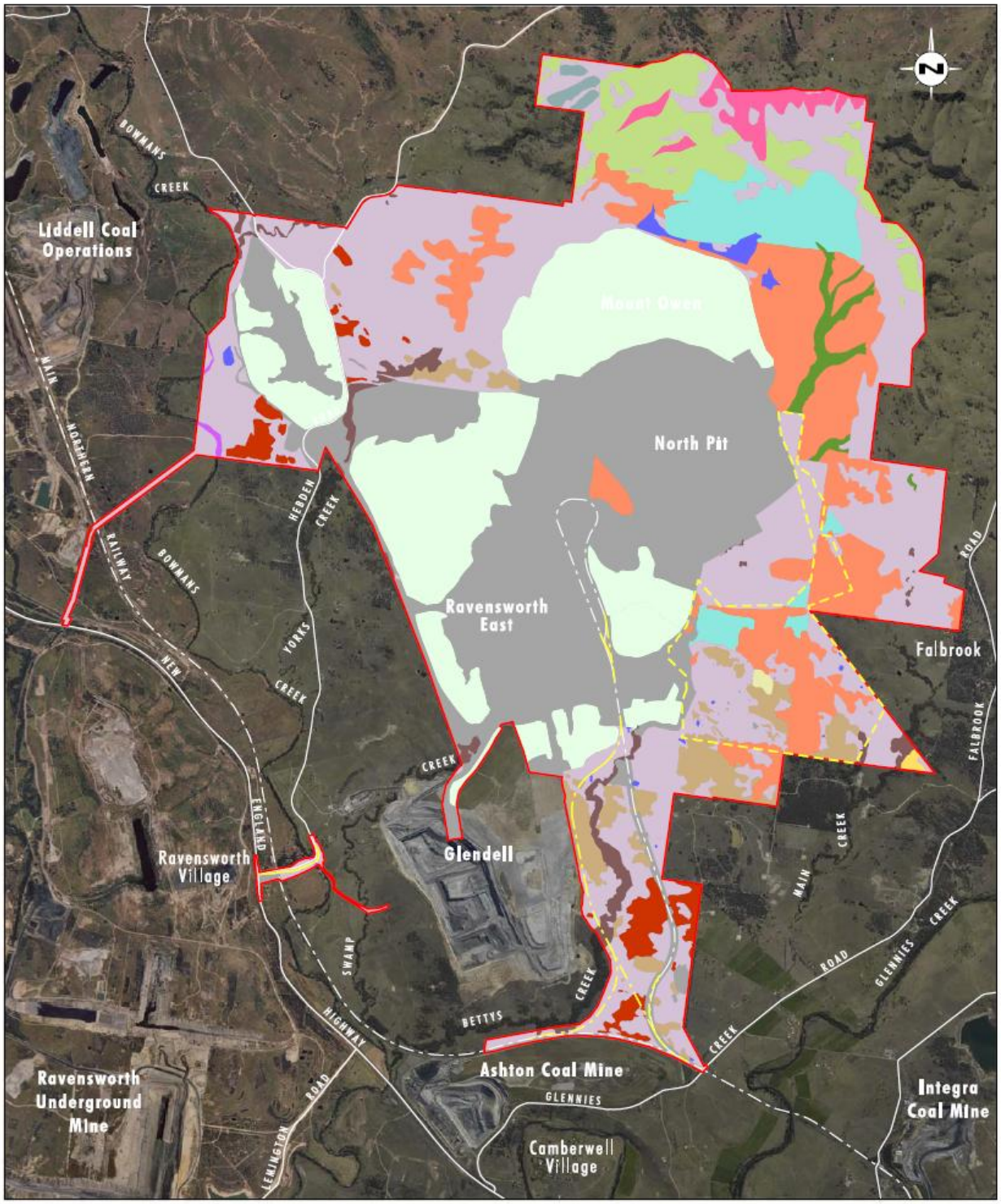


Image Source: Xstrata Mount Owen (2012)
Data Source: Xstrata Mount Owen (2012), Umwelt (2012)

0 1 2 3 km

Legend

- Project Area
- Proposed North Pit Continuation
- Rail Upgrade Works
- Hebden Road Upgrade Works
- Disturbed Land
- Barrington Footslopes Dry Spotted Gum Forest
- Central Hunter Grey Box - Ironbark Woodland (EEC)
- Central Hunter Box - Ironbark Woodland
- Central Hunter Bullook Forest Regeneration
- Derived Native Grassland
- Dry Rainforest
- Hunter Lowlands Red Gum Forest (EEC)
- Hunter Footslopes Sheltered Forest
- Hunter Valley River Oak Forest
- Planted Ironbark - Spotted Gum - Grey Box Forest (EEC)
- Mine Rehabilitation
- Central Hunter Ironbark - Spotted Gum - Grey Box Forest (EEC)
- Central Hunter Swamp Oak Forest
- Kunzea Closed Shrubland
- River-flat Eucalypt Forest
- Dam

Vegetation Communities

2.2 Geology

2.2.1 Geological Features

The Mount Owen Complex is located in the central coal-producing region of the Hunter Coalfields. The seams of this coalfield were formed in the Permian period and are similar in age to the Illawarra Coal Measures south and west of Sydney, and the Newcastle and Tomago Coal Measures of the Newcastle/Maitland area.

The strata in the Hunter Coalfield generally dip to the west-south-west under the prominent sandstone escarpments of the Sydney Basin. A series of folds, superimposed upon the regional dip, form large north-south trending anticline, synclines and monocline structures. The coal seams within the Project area, which form part of the Wittingham Measures, dip steeply in the east from where they outcrop. The seams have been folded by the Mount Thorley Monocline to level out forming part of the gently dipping strata of the Singleton Super Groups.

2.2.2 Coal Resources

Coal resources at the Mount Owen and Ravensworth East Mines occur within the Late Permian Wittingham Coal Measures. Within the North Pit at Mount Owen Mine, coal is currently extracted from the Lemington Seams down to the Lower Hebden Seams within the Foybrook Formation. Coal resources within the Ravensworth East mine are extracted from the Ravensworth seams down to the Bayswater seams within the Burnamwood Formation which dip to the south-east at 15 degrees. Interseam sediments are predominantly siltstone and lithic sandstone with sporadic claystone units. Minor conglomeratic bands, thin siderite bands and coarse-grained sandstones are more common between lower seams in the sequence.

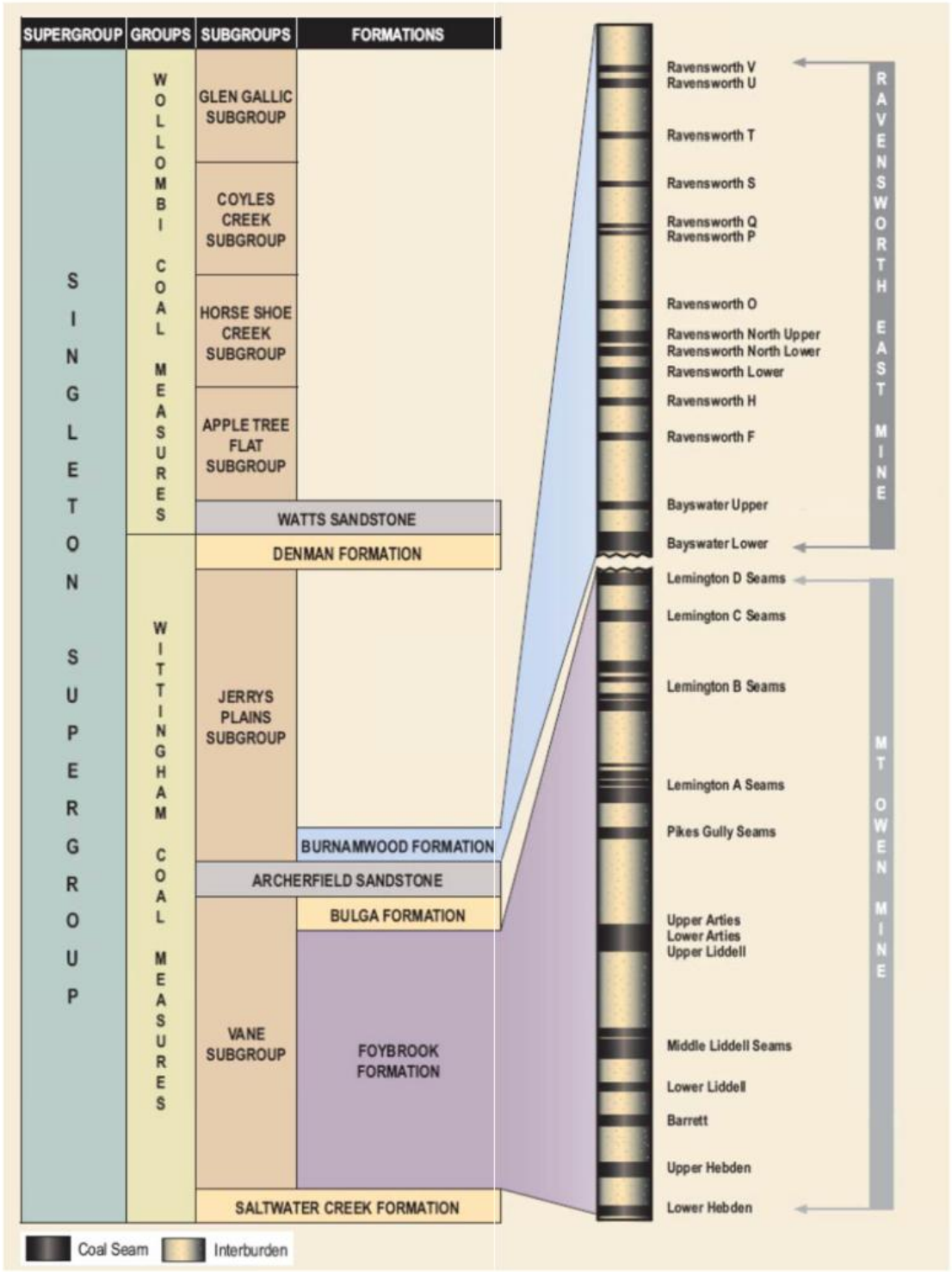
Up to 22 mineable coal intervals are recognised across through Burnamwood and Foybrook Formations, ranging in thickness from 0.2 metre to 10 metres, within a stratigraphic interval of approximately 350 metres, the coal seams comprise a total thickness of approximately 55 metres. The typical stratigraphic section illustrated in Figure 2-1 (below) illustrates the distribution of coal seams at the Mount Owen and Ravensworth East Mines.

2.2.3 Geological Structures

The Mount Owen North Pit is situated between two regional thrust faults, the Hunter Thrust and the Hebden Thrust that limit the lateral extent of the coal seams. The Hebden Thrust has resulted in significant distortion of the coal seams resulting in a different target sequence for the mining operations within the Mount Owen North Pit in comparison to that undertaken at Ravensworth East. Seam dips vary throughout the deposit, with dips being steep (up to 45º) in the areas near the Hunter and Hebden Thrusts where parallel thrusts dislocate the seam by up to 40 metres.

The geology underlying the Project Area is comprised of Permian period Wittingham Coal Measures, within the Jerrys Plains subgroup. The Jerrys Plains subgroup contains coal seams, claystone, tuff, siltstone, sandstone and conglomerate. The underlying sandstones and conglomerates are frequently exposed in areas of heavy erosion, notably in Bettys Creek and some of the more incised tributaries.

Figure 2-1: Stratigraphic column of the Project area.



Stratigraphic Column

Image Source: Xstrata Coal Mount Owen Complex
Annual Environmental Management Report (1 July 2010 - 31 December 2011)

File Name (A4): R02/3109_410.dgn
20130301 11.10

2.2.4 Vegetation

Remnant native vegetation within and surrounding the Project Area consists of scattered patches of woodland forming a mosaic between areas of agricultural and mining land. Five creeks (Bowmans, Bettys, Swamp, Yorks and Main Creeks) also occur within or near the boundary of the Project Area and generally support stands of Swamp Oak and/or River Oak. Ravensworth State Forest also occurs within the north-eastern portion of the Project area.

The areas surrounding the Project Area are predominantly composed of valley floor woodlands, forests and native and exotic pastures derived from the clearing of the woodlands.

Fourteen vegetation communities have been mapped within the Project area, nine of which occur within the proposed disturbance area (See Map 2-1). Vegetation communities, recorded in the proposed disturbance area include:

- Central Hunter Grey Box Ironbark Woodland (EEC listed under the TSC Act);
- Central Hunter Bulloak Forest Regeneration;
- Central Hunter Swamp Oak Forest;
- Central Hunter Ironbark - Spotted Gum - Grey Box Forest (EEC listed under the TSC Act);
- Planted Ironbark - Spotted Gum - Grey Box Forest (EEC listed under the TSC Act);
- Hunter Valley River Oak Forest;
- Kunzea Closed Shrubland;
- Derived Native Grassland; and
- Rehabilitation.

2.2.5 Historical Land Use and Approvals History

A review of aerial photographs obtained from the Department of Lands dating from 1958 was undertaken by Umwelt as part of the overall assessments for the Project and shows that prior to 1958 substantial clearing had been undertaken in the Project area likely as a result of agricultural expansion (See Maps 2-2 to 2-5). After 1958, landform modification through coal mining became widespread in the Project area. . The sections below) are from the Umwelt Historic Heritage Assessment (2013).

2.2.6 Pastoralism

The pastoral industry was the earliest established industry within the area. Benjamin Singleton placed a notice in the Sydney Gazette as early as December 1821 advertising agistment at St Patrick's Plains at 10 shillings a head per annum for not less than three years. In 1823, John Howe was granted permission to graze his stock at Patrick's Plains, agisting 1,000 sheep and 1,200 cattle. Horse breeding also became a thriving industry. The Scotts of Glendon were importing stud horses in 1822 and Alexander Bowman bred a number of race horses at Oaklands, to the south-east of the Project area. In the 1820's, Dr James Bowman ran 2,000 merino sheep and 200 head of cattle on his Ravensworth Estate. Bowman's sheep were said to rank among the first crossbreeds in the colony.

During the 19th century the area of Ravensworth Estate was central to local and regional wool production. In the late 1850's Captain William Russell had travelled to Europe specifically to purchase merino rams to improve his NSW flocks. However, there was a shift from wool production in the 19th century to mixed farming, dairying

and to a lesser degree grazing became more important in the 20th century. Parasitic infections in sheep in the late nineteenth century further encouraged the shift to dairy farming.

The 1828 census indicates that, of the 191 large (over 1,000 acre) estates occupying the Upper Hunter Valley, *'only one third were sheep grazing enterprises with cattle raising being much more common'* (Turner 1995: 18).

2.2.7 Dairying

Dairying was one of the initial impetuses for the division of large estates in the Upper Hunter. The subdivision of the area's large estates commenced in the mid-19th century and by the early 20th century the Upper Hunter was mostly occupied by dairy farms of up to 500 acres in size (Heritage Office & DUAP 1996a:49). Dairy farming became an important land use after sheep/wool production began to wane in the nineteenth century due to parasitic infections in sheep.

The importance of the dairying industry in the Upper Hunter coincided with the 'development of the mechanical separation of milk and refrigeration causing a re-shaping of the pattern of farming' in the Singleton and Muswellbrook Local Government Area, due to the increased demand for dairy products in Australia and overseas (Turner 1995:19). Dairying increased after the World War I as soldiers were given small holdings and government assistance to establish small agricultural businesses, such as dairy farms (Heritage Office & DUAP 1996a:49). The effect of soldier settlement increased after the World War II in Singleton when the '*country was cut up into wheat-sheep farms'* (Heritage Office & DUAP 1996a:49). In 1955 the NSW milk board established quotas for the supply of milk to overcome shortages.

In the second half of the 20th century the dairying industry went into a gradual decline. Since 1901 the dairy industry in NSW had been controlled by various government bodies. In the mid to late 1960's polices aimed towards specialisation and amalgamation affected the smaller scale dairy farms. Then in the 1970's Britain joined the European Economic Community and Australia lost its main dairy export market. In the early 1970's the Milk Board was replaced with the Dairy Industry Authority resulting in the reallocation of milk quotas and the eventual deregulation of the industry. Farm improvements to meet new regulations and standards, including the installation of refrigerated holding tanks, resulted in many of the typical small dairy farms of the area becoming unviable. The number of dairy farms in NSW dropped from 9,061 in 1970 to 4,626 in 1976 (Dunne 2012:75-81).

The importance of dairying as a land use is reflected in the history of the Project area and the number of former dairy sites identified within and in the vicinity of the Project area as part of previous assessments and the current assessment (See Umwelt,2013 for more detail).

2.2.8 Agriculture

The Singleton locality contained several thousand acres clear of timber and covered with rich alluvial soil which produced heavy crops of wheat, maize, barley, oats, rye, potatoes and natural grasses.

A correspondent of the Australian in 1827 reported the Castle Forbes properties yielded thirty-six bushels (1 bushel = 8 gallons/36.37 litres) to the acre of wheat. The correspondent reports that there were two stack yards within a mile of each other containing together 10,000 bushels of wheat. Tobacco was another crop grown in the area and a few properties also experimented with cotton which ultimately failed.

Historical records indicate the extent of cultivation in 1831. These records state that the Patrick's Plains district cultivated 1,054 acres of wheat, 625 acres of maize, 54 of barley, 10 of oats, 15 of rye, 15 of potatoes, and 17 acres of tobacco. In 1836, the number of acres in the counties of Brisbane, Northumberland, Hunter and Durham under wheat was 27,424 and maize 7,899 with 45 tons of tobacco harvested (JRAHS, 1953). Table 2-1 shows the area under cultivation for wheat decline while the area under maize and tobacco increased between 1,836 and 1844.

Table 2-1: Area under Cultivation - Counties of Brisbane, Northumberland, Hunter and Durham (JRAHS 1953).

Crop	1836	1839	1844
Wheat	27,424 acres	15,114 acres	21,534 acres
Maize	7,899 acres	10,112 acres	14,226 acres
Tobacco	45 tons	1,505 hundred wt	4,890 hundred wt

Returns for 1860 show that there were 206 landholders at Patricks Plains which included the counties of Durham, Hunter and Northumberland and they held 161,310 acres. Of this area 155,508 acres were not cultivated. The crop yields were: wheat 22,000 bushels, maize 25,926 bushels, barley 400 bushels, rye 45 bushels, millet 15 tons, potatoes 49 tons, sorghum 243 hundred weights and hay 235 tons (JRAHS 1953).

Wheat crops grown in the Hunter Valley were prone to the disease 'rust', which struck severely in 1857 (Turner 1995). Disease together with the relatively dry conditions in the Upper Hunter made wheat a precarious crop and as a result its production declined. The decline in wheat cultivation saw an increase in barley production mainly for stock feed but as the dairy industry began to grow lucerne crops became a more viable option. Lucerne crops are indicated on the 1889 Plan of the Subdivision of Part of the Ravensworth Estate to the east of the rail line.

2.2.9 Viticulture

As dairying went into decline in the second half of the twentieth century wine growing began to grow in importance in the region. Today's wine region has its beginnings with the early settlers experimenting with growing vines on their large estates. The Reverend Richard Hill is reported to have planted over two and a half thousand vines on his Milbro Dale (Milbrodale?) Estate by 1834 (to the south of the Project area – east of Broke). During Captain William Russell's trip to Europe in the late 1850's to purchase merino rams he also arranged to send *'one shipload of 4,000 grape vines of one year's growth'* to stock his NSW vineyards (Hunter 1997:11). Commercial wine growing in the area developed following the establishment of Soldier Settlement viticultural farms in the 1920's however, the boom of grape growing in the Hunter Valley did not occur until the 1970's. Viticulture farms are not extensively located in the Ravensworth area.

2.2.10 Mining

The development of coal resources comprises an important part of the region's history. Coal mining within the Hunter Valley began on a limited scale in the early 1900's, prior to a rapid expansion in the 1950's with the establishment of large open-cut mines (Dean-Jones and Mitchell 1993:2).

Coal was known to exist in Singleton and its surrounding areas since early exploration. In 1819 when exploring the Jerrys Plains area John Howe is reported to have been:

> *'…picking up in the river some large pieces of coal, which they took back to Windsor' (Wood 1972:11).*

The first official coal seam was discovered on the Wambo Estate in 1863. Its discovery was reported in the Maitland Mercury:

> *'A rich seam was recently discovered at Wambo, Cockfighters Creek, the estate of William Durham Esq.…We believe this is the first coal seam which has been discovered in the country of the Hunter; and as*

Mr Durham's estate is about 12 miles from Singleton, it is clear proof of the wide spread of the coal deposits in this district' (Singleton Historical Society, nd).

Coal was first mined in the Upper Hunter in the Rixs Creek area near Singleton in the 1860's (Rappoport 2006:24). However, early coal operations such as this were not commercially viable because of the then underdeveloped transport network. Development and extension of the Great Northern Railway provided the stimulus needed for the development of coal mining in the area (Dunne 2012:88). On 23 September 1886, the 'Singleton News' in the Maitland Mercury reported that:

'Since Messrs Nowland opened up their mine, sinking for coal has been actively prosecuted on the Ravensworth estate and we learn that the perseverance of the promoters has been successful to such a degree that they intend to float the undertaking shortly into a company with equal capital of £50,000. A prospectus will be shortly issued'.

Noble writes that no further information was found on this venture but it indicates that coal extraction was commencing during this time. According to the Heritage Office & DUAP (1996a:4) '*coal was not commercially exploited until the 1890's in the Upper Hunter'* and the area remained dominated by the agricultural industry, with a continued focus on dairying.

Coal mining and electricity generation have become major industries in the Singleton area since the 1950's with the first wave of collieries built to meet export demand at Liddell, Foybrook and Liddell State. Since the mid-twentieth century, coal mining operations *'expanded from Cessnock/Maitland area to the triangle bounded by Singleton, Muswellbrook and Denman, using highly mechanised, open cut surface mining techniques in which all overburden is stripped from the surface'* (Rappoport 2006:24).

In 1964 the State Electricity Commission commenced construction of the Liddell power station, which was commissioned in 1973. The Bayswater Power station was commissioned in 1980. These Projects changed the lifestyle of the residents of Singleton and surrounding local government areas by affecting employment, population, housing, commerce and the character of the locality. The power stations increased the demand for coal, as did the expanding export market.

Swamp Creek Mine began operating in the 1960's. In 1997 a new mining lease (ML 1415) was issued after a period of care and maintenance and the mine was renamed Ravensworth East Mine.

The Mount Owen Mine commenced operations in November 1993 under the management of Hunter Valley Coal Company (HVCC) with the original development consent granted in November 1991 by Singleton Council. The initial approval was for the production of 1.4 Mtpa ROM coal.

Figure 2-2: Aerial photograph of a cleared but largely intact landscape taken in 1958.The approximate location of the intersection of the New England Highway and Hebden Road is arrowed. The original ox bow in Bowmans Creek is clearly visible.

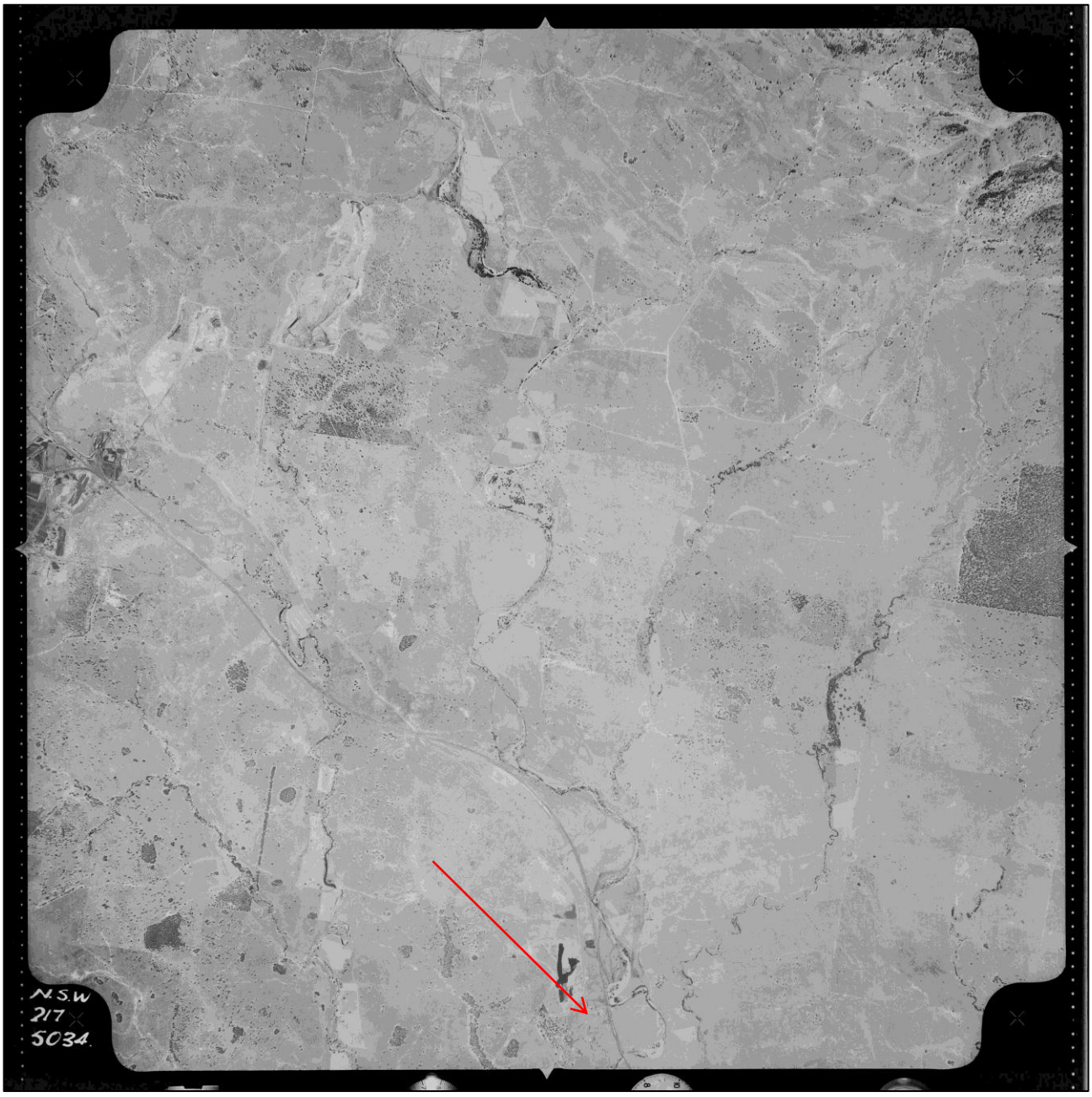


Figure 2-3: Aerial photograph of the area taken in 1967.The approximate location of the intersection of the New England Highway and Hebden Road is shown. The original ox bow in Bowmans Creek is still clearly visible

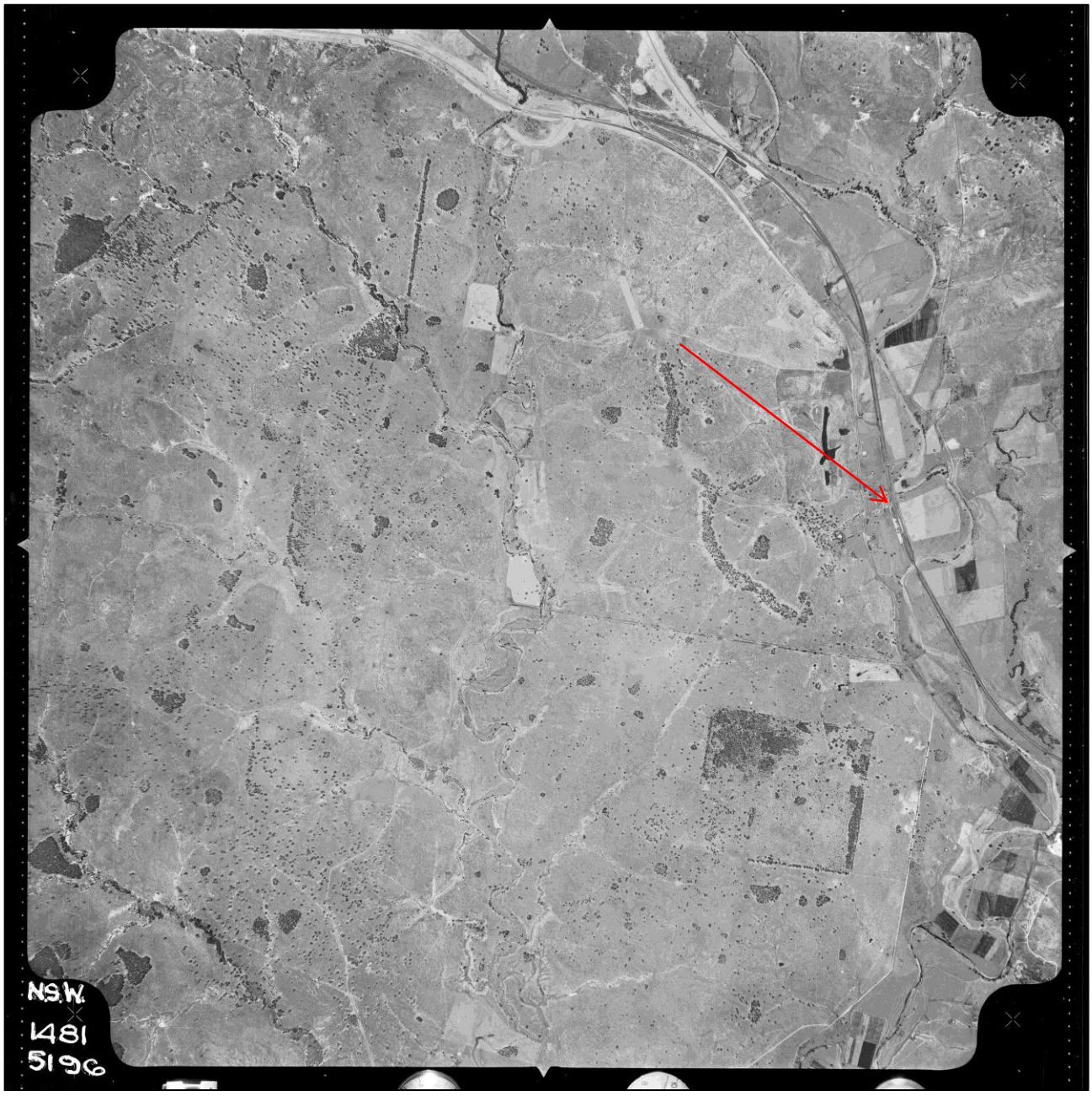


Figure 2-4: Aerial photograph of the area taken in 1983. The approximate location of the intersection of the New England Highway and Hebden Road is shown. The original ox bow in Bowmans Creek has been removed, and the area is showing signs of extensive modification via mining



Figure 2-5: Aerial image of the Project area taken in 2011 showing extensive ground surface modification via mining. The intersection of the New England Highway and Hebden Road is arrowed. Note the remodelling of the upper reaches of Bettys Creek (arrowed in blue).



Figure 2-6: Aerial image of the Project area taken in 2011. The upper reaches of Bettys Creek, showing the completely remodelled landscape. No part of the original creek remains intact in this locale.



2.2.11 Mount Owen Mine

Operations at the Mount Owen Mine commenced in 1993 with the original development consent (DA 63/91) granted in 1991 with an extraction limit of 1.4 Mtpa ROM coal. Subsequent development consents were granted between 1994 and 2004 allowing the construction of infrastructure including the rail loading facility and ancillary water pipelines and water storage dams. Modifications were also granted for a mine extension and to allow an increase in the extraction limit in 1994 to 5.3 Mtpa and in 1999 to 8 Mtpa. Other modifications to the operations were also granted in relation to the emplacement of tailings within the voids at Ravensworth East Mine, to allow the receipt of ROM coal at the Mount Owen CHPP for processing and to allow the discharge of mine water into the Hunter River in accordance with the Hunter River Trading Scheme (HRSTS).

The current development consent for the Mount Owen North Pit, DA 14-1-2004 was granted in December 2004 to continue the open cut operations over a 17 to 21 year mine life, with an increase in ROM coal production to 10 Mtpa. DA 14-1-2004 included the following components:

- Construction and operation of a ROM coal receiving facility and haul road;
- Increase to the approved processing rate and Mount Owen Rail loading facility to 15 Mtpa ROM coal;
- Development of the Eastern Rail Pit and Western Out of Pit Dump;
- Continued disposal of tailings from the Mount Owen CHPP in voids at Ravensworth East Mine; and
- Modifications to the existing water management system, office buildings and other ancillary infrastructure.

DA 14-1-2004 has been the subject of one modification in 2010 to allow for the establishment of a rail provisioning.

The 2004 approval (DA 14-1-2004) was supported by a detailed Environmental Impact Statement that included an assessment of Aboriginal Heritage. A summary of the results as presented in the 2003 EIS are provided below.

> *'Mt Owen and its immediate surrounds have been subject to regular archaeological investigations, both surface and sub-surface, since 1990. A number of sites have been previously located within the Mt Owen area and many have been subject to surface salvage and/or sub-surface investigation. Extensive sub-surface excavation is currently underway in areas adjacent to Bettys Creek, within the currently approved mining area that is yet to be disturbed. Further survey was conducted for the Project involving the local Aboriginal community. A further 34 sites were identified, predominantly along Bettys Creek and the upper reaches of Main Creek. Most sites contained less than 10 artefacts consisting mainly of mudstone and silcrete flakes and cores. One hammer stone and one axe were found. Two of the sites found contained in excess of 600 artefacts and were assessed as having a moderate level of scientific significance with all other sites assessed as moderate to low or low overall significance values. Management of these sites will include salvage and targeted excavation to further record available site information, in accordance with the appropriate permits'.*

2.2.12 Ravensworth East

The Ravensworth East Mine was formerly known as the Swamp Creek Mine which had been operating since the 1960's. In 1997, a new mining lease (ML 1415) was issued after a period of care and maintenance and the mine was renamed Ravensworth East Mine. Ravensworth East Mine operates under DA 52-03-99 which originally allowed for the supply of coal to the domestic market through the transportation of ROM coal via conveyor to both the Bayswater and Liddell power stations. Subsequent modifications to DA 52-03-99 in 2000, 2003, 2004 and 2005 have included modifications to allow the extraction of coal for the export market following the processing of coal at the Mount Owen CHPP, an increase in the extraction rate and the emplacement of tailings from the Mount Owen operations within voids at Ravensworth East.

DA 52-03-99 was most recently modified in 2013 to allow approval for the Ravensworth East Resource Recovery (RERR) Project. The RERR Project allowed for the continuation of the Ravensworth East mining operations

through the recovery of approximately 6 million tonnes of ROM coal within the current approved life of mine within an area previously mined, known as the RERR mining area.

The current Ravensworth East (DA 52-03-99) and Mount Owen (DA 14-1-2004) approvals allow for the emplacement of tailings and rejects from the Mount Owen Mine within Ravensworth East voids (including the West Pit and the RERR mining area).

The key findings of the Aboriginal and European Heritage assessment as detailed in the 1999 EIS supporting DA 52-03-99 is outlined below.

> *'Thirty indigenous archaeological sites and areas of potential archaeological deposits were found within the study area. Overall, this was considered a low number of sites and artefact numbers. This may be attributed to sampling conditions or the low artefact numbers may be a real representation of the resource. The majority of sites will be destroyed by the proposed development. Wherever practicable, mine design will incorporate measures to conserve archaeological sites. Where this is not possible, further investigation and salvage will be undertaken in co-operation with the National Parks and Wildlife Service, the Wonnarua Tribal Council Incorporated and Wanaruah Local Aboriginal Land Council. The heritage assessment found three items greater than 50 years old on the site. These included remnants of a farmstead and associated buildings which were assessed as having medium significance. These will be recorded prior to being impacted by proposed operations'.*

2.3 Background of Aboriginal sites in land

Site name	Included in DVD	Inside the mine	Comments
Bowman creek new bridge area	Yes	No	Possible (PAD) or area for in situ cultural heritage buried under the surface
Area 2 eastern drainage into main creek	yes	yes	Typical drainage creek line noted in this region of the hunter central lowlands. Natural camping and hunting area for tribal Wonnarua people, important for this reason.
Un named site on eastern drainage line, next to the mine	no	yes	Considered to be unimportant and already impacted because of its close proximity to the active coal mine
Local hill top in the region	yes	yes	Although no artefacts were found on this hill top, our people considered this to be an important place to record some historical information about this area

2.4 Past and Present Aboriginal land use

It is becoming increasingly harder for some of our people to remember what the original landscape looked like after the open cut mining has passed through the landscape, because of the collective impact due to the increased coal mining in our home land.

What we do have are the pictures and memories from some of the people who were either present during the early heritage assessments during last century from 1991 onward, or have knowledge passed on through oral history about the Ravensworth Region which has been passed down from generation to generation from a Wonnarua Cultural perspective.

What we can tell you is that the landscape was mostly ridge lines and slopes opening up to bushland with a small number of gentle slopes running across the region, including a number of named and un-named creek lines which were used by the traditional Wonnarua people as hunting, camping and fishing grounds before the English discovered Australia and the settlers were granted Wonnarua Country.

The new people then moved onto our Country and started to change the landscape, by clearing the land of all the forests and fencing off each crown land grant they received, beginning from the early 1820s to the present day.

The buffer zone land around the current mining site is considered to be important by the Wonnarua people because it is still not affected by coal mining. A full description of what the land looked like is given in the main report as per reporting standards required under the NSW department of planning.

The Wonnarua traditionally used this area for camping, hunting and gathering before Europeans arrived in the Central lowlands of the Hunter Valley.

3. Aboriginal Community Consultation

The preparation of a Mount Owen Continued Operation Project Preliminary Environmental Assessment (PEA) was undertaken by Mount Owen and Umwelt to identify whether there are Aboriginal cultural heritage values associated with the Project area. For the Project, the PEA, prepared in early 2013, identified the presence of Aboriginal cultural heritage values and need for an Aboriginal Cultural Heritage Assessment as part of the Project EIS.

3.1 Process Undertaken

Consultation with RAP's for the Project was undertaken with reference to the relevant DEC (2005) and DECCW (2010a) guidelines and in accordance with the principles of The Burra Charter (Australia ICOMOS 1999). Consultation has involved four consultation stages as detailed in the DECCW (2010a) guidelines, as detailed below.

These steps are consistent with the intent of the six step process described in the DEC (2005) guidelines.

Stage 1: Aboriginal parties with an interest in the Project were identified through Agency contact and public advertising, inviting Aboriginal parties to register an interest in the Project. Registrations of interest by Aboriginal parties (RAPs) were received.

Stage 2: Information about the Project was provided to all RAP's who had registered during the formal Stage 1 notification period, including half day workshops and undertaking field visits with RAP's to view the Project area. Stage 2 also introduced the methodology of the consultation and assessment, including consultation and communications protocols, consistent with that from a similar Project recently completed at Xstrata's Bulga Optimisation Project

Stage 3: The methodology for the assessment of Aboriginal cultural heritage in the Project area, based on feedback from Stage 2 consultation was refined, and targeted more specifically at the Mount Owen Continued Operations Project. Stage 3 included all the site based scientific and cultural surveys and workshops.

Stage 4: An ACHA report and draft Aboriginal Archaeological Values Assessment report were compiled and provided to the RAP's for their comments. Both reports form part of the EIS for consideration as part of the development assessment process.

3.1.1 Wonnarua People Consultation

3.1.2 Description of Consultation Process

The consultation process was preceded by a number of communications and meetings between Glencore representatives and the project team. The project team also met and decided on an approach to ensure that all WP stakeholders, knowledge holders and Elders would have ample opportunity for input into the process. At all times participants have been invited to comment on the process and at different times minor modifications have been made to accommodate alternative views.

A range of meetings were planned in advance at critical stages in the process. The Inception Meeting was used to explain the overall process and invited people present to reaffirm that they wanted to be represented by the WP report. Stakeholders subsequently went on site during mid-March 2013 to participate in site work and the Elders were also invited to look around the site.

A more detailed inspection was made on the Inspection visit on 27th March 2013 and a video record was made at that time. A post Inspection meeting was held on 24th April 2013 and participants were invited to contact the consultants if they had any knowledge that they wanted to feed into the process in a more confidential way. The

consulting team then commenced preparation of the draft report which was presented in mid July and reviewed by Elders and Stakeholders at a Review meeting on 1st August 2013.

3.1.3 Wonnarua People Inception Meeting Workshop

A meeting of the Wonnarua People Claimant Group Representatives and Stakeholders was held at 10.00am on 26th February 2013 at the Singleton Bowling Club.

The meeting was organised by the Wonnarua people consulting team of Keith Rogers, Victor Perry and Tracey Skene. Keith Rogers started the morning by giving a brief overview of the Mt Owen Continuation project, and explaining the process from the Wonnarua Nation's perspective to our group, so that they would understand what is expected from the meeting in relation to this project.

Keith also discussed the early involvement of the Wonnarua Elders at the beginning of the process, which is a different approach from the Bulga Coal or (BOP) project we did some months ago. The benefit of this being that the Elders can have a say up front in the discussion, rather than later on, which could be too late in the consultation process.

The consultation groups discussed certain other in house topics. Administration and insurance questions were raised concerning Wonnarua Nation Aboriginal Corporation (WNAC) coverage for Wonnarua business's consulting as sub-contractors and working in the field, which was dealt with and agreed upon at the meeting.

The second stage of the meeting then begun by Victor Perry explaining the project overview via a PowerPoint presentation which covered all of the different stages of the project, including the timeframes and other key milestones that we need to discuss and give advice for.

At this point the focus of the meeting was handed over to two of the Mt Owen project team members Gary Boland and Gary Bernasconi, for a short presentation from the mining perspective and to help answer any questions that our group may have.

Gary Boland explained the process to try to determine the significance of the area to the Wonnarua people, and that a new team is being brought in to help with the report. He also stated that Glencore has recognised 3 separate groups as knowledge holders such as our group, the Wonnarua Plains Clan and Wonnarua Traditional Custodians.

Gary also discussed the proposed field work and transportation for the work during this period.

Gary Bernasconi then explained the role of the archaeologists in the project and what has been already done up to this point. One of our members questioned Gary if our group could see the WTC report, Gary then explained the difference between traditional knowledge holders and stake holders.

Other questions were raised regarding Wonnarua businesses' identifying which group that they would work for as field work sub-contractors. Gary said that this process would be different from the Bulga project, and that each group will provide a list of Wonnarua sub-contractors for the consultation process.

There was a quick group discussion as to what this means based on the affiliations of our group. It was agreed by all that as a group, most of us would follow the Bulga project consultation path and consult under the WNAC.

It was noted that it was still up to the individual stakeholder to make that choice.

Gary continued by stating that the fieldwork was to go ahead the following week. Someone asked if it would be possible to view the other groups finished report. Gary went on to explain the disclosure and non –

disclosure options with the reports, and that Glencore and O.E.H will review all of the reports when they are finished.

Others in our group questioned why the other native title claimants are being recognised. Gary explained that Glencore must recognise all groups under the law, whether they are considered true descendants by our groups or not. The CEO of the WNAC stated that it is a part of the whole process for the Wonnarua People to get the opportunity to be consulted on the impact of the project, and that all of the Wonnarua reports are taken into account.

The meeting then thanked both Gary Boland and Gary Bernasconi for their time in explaining the project to our group.

The meeting moved back to the PowerPoint presentation and discussed the general history of the area inside of the project. A question was asked as to what physical evidence has been found so far. The answer was that quite a large number of stone tool making sites were present in the landscape.

These significances suggest that our ancestors had spent quite a lot of time in this area for many thousands of years.

On the overhead we viewed a small number of reports that were carried out by the Wonnarua Tribal council for cultural heritage assessments that were done in the 1990's. This shows a connection to our country in more recent history, as well as the connection we have because of the stone tool making sites that have been found in the landscape. It was explained that the nature of these reports are very much the same today, as we usually survey the landscape then write a report on what was found and its significance to the present descendants of the Wonnarua people.

The group than reviewed the archaeologist reports that had been produced from 1991 to the present day, and discussed our connection in general terms. We then moved on to the MOCO presentation.

The MOCO presentation reviewed the Mt Owen expansion and what is going to happen if the mine is approved.

The presentation explains the area of land affected by the increased area of mining, the timeline for approvals, the outcomes for the development and the environmental constraints and studies.

A question was raised as to whether the Wonnarua people will be compensated by the mining companies for the destruction of our culture and heritage. Someone in our group answered, by saying that the mining companies do not compensate for that.

Another of our group said that there are opportunities for employment in the environmental management of the land. We also viewed a map of the land owners in close proximity of the mine and then viewed the Hebden road upgrade and possible potential area of deposit or (PAD) for Aboriginal stone tools.

A question was asked regarding the difference between the types of survey areas. It was explained that some areas have been disturbed and have less archaeological potential then other areas.

It was discussed whether future land offsets have any value for the Wonnarua People, especially considering that many offset areas are mined at a later date by the mining companies. The response was that this report is our tool to use to express our concerns through this process. Another question centred on the limited impact that Wonnarua people have on the whole project, and whether we have the infrastructure in place to provide employment in the mine rehabilitation.

One of our consultants explained the Wonnarua Mine Rehabilitation Pty Ltd company that is fully owned by the WNAC and its members. This new company will tender for work and provide employment for our people

through mine rehabilitation works. It was also explained how the board of the WNAC appoint the directors of the company.

Wonnarua Mine Rehabilitation Pty Ltd sits under a previous Native title agreement that will be supported by a nursery to grow trees for mine rehabilitation on other mining sites, within the region, therefore providing employment for our mob.

The Gantt chart for the Mt Owen project was put up on the overhead for discussion and a question was asked about the nature of the background research and who will be doing the research. It was stated that this will be a part of the project team's work to collate all this information for the report.

There was an interest put forward that the Wonnarua Elders should visit the site before any field work begin, in order to provide any significant information so that this could be considered by the developer.

It was explained that the inception meeting is to provide an opportunity for the Elders and other knowledge holder's to put their information forward, if they wish to.

It was mentioned, from our group, that the majority of the oral history for this area has already been done and was known by some members of our Elders. Some of our people have specific knowledge of our connection and history, yet there is not a lot of new information or new history to be found about the site.

A majority of the history is general oral history, however it is still very important to walk the land and reconnect to the country of our tribal ancestors and Wonnarua clan country.

A person in our group then shared some information about the contact history with the English settlers, and our tribal Wonnarua people at the time. This information has been recorded in the accounts of the European settlement records in the Mitchell library in Sydney, under the Royal Historical Society accounts during the early period of the 1820s.

There are accounts of skirmishes between the Wonnarua people and the settlers of the Upper Hunter, over land and access rights, with one account of a small skirmish somewhere in the Mt Owen area. This is said to have occurred when a small number of Wonnarua people were caught and massacred by the local farmers and mounted police after a short battle between the parties.

No one within our group has any information or knowledge as to where the Wonnarua people are buried after the said massacre, nor does anyone know where the real battle happened. Therefore, any of the related stories, for this particular site, are lost in time.

This area is important because of these stories and other contact places associated within the Wonnarua landscape and heritage. All the stories connect us to our country, including the bad history, such as the way our people were treated by the Europeans during this time.

For this reason it was stressed to our entire group that they must read and respond to the first draft of our report, as this is our collective response to this development before the government gives approval.

It was then stated that the Elders must continue to take the opportunity to inform themselves, so that they can follow the project to its completion, noting that there still may be other information that could come up through this process.

A member of our group then stated that the St Clair Mission is within walking distance of the current project area. Our oral history knowledge states that some of our male ancestors used to go hunting in and around the St Clair mission, during the turn of the century, to supplement the government rations that were handed out to the Mission inmates.

Therefore this area may well have been used by our closest relatives, which provides a strong current connection to the living Wonnarua people today.

A question was then asked about our report's confidentiality, seeking clarification about information that our people provide through this process. The answer was given that any information given can be protected and not shared with anyone if the person giving this information asked for their knowledge to be protected.

The following key issue is agreed:

> **What we deem to be of importance to us is the fact that our tribal Wonnarua ancestors walked, camped in, and used this country as their home for generation upon generation, and that we are connected through our family's oral history to this country.**

There was a general discussion around the other, so called Wonnarua groups rights concerning their current and past connection to this country as it is a well-known fact that Aboriginal people have been locked off vast areas of country for over 190 years in the Hunter Valley.

It was agreed, by our group, that the other Wonnarua parties need to provide their own connection and stories and that we will provide our own evidence to this country within this report.

A recommendation from our group would be that perhaps we should be using the artefacts as teaching tools for conducting workshops in spear making and tool making classes for our younger people. This may be a recommendation regarding the intergenerational equity stage of this report.

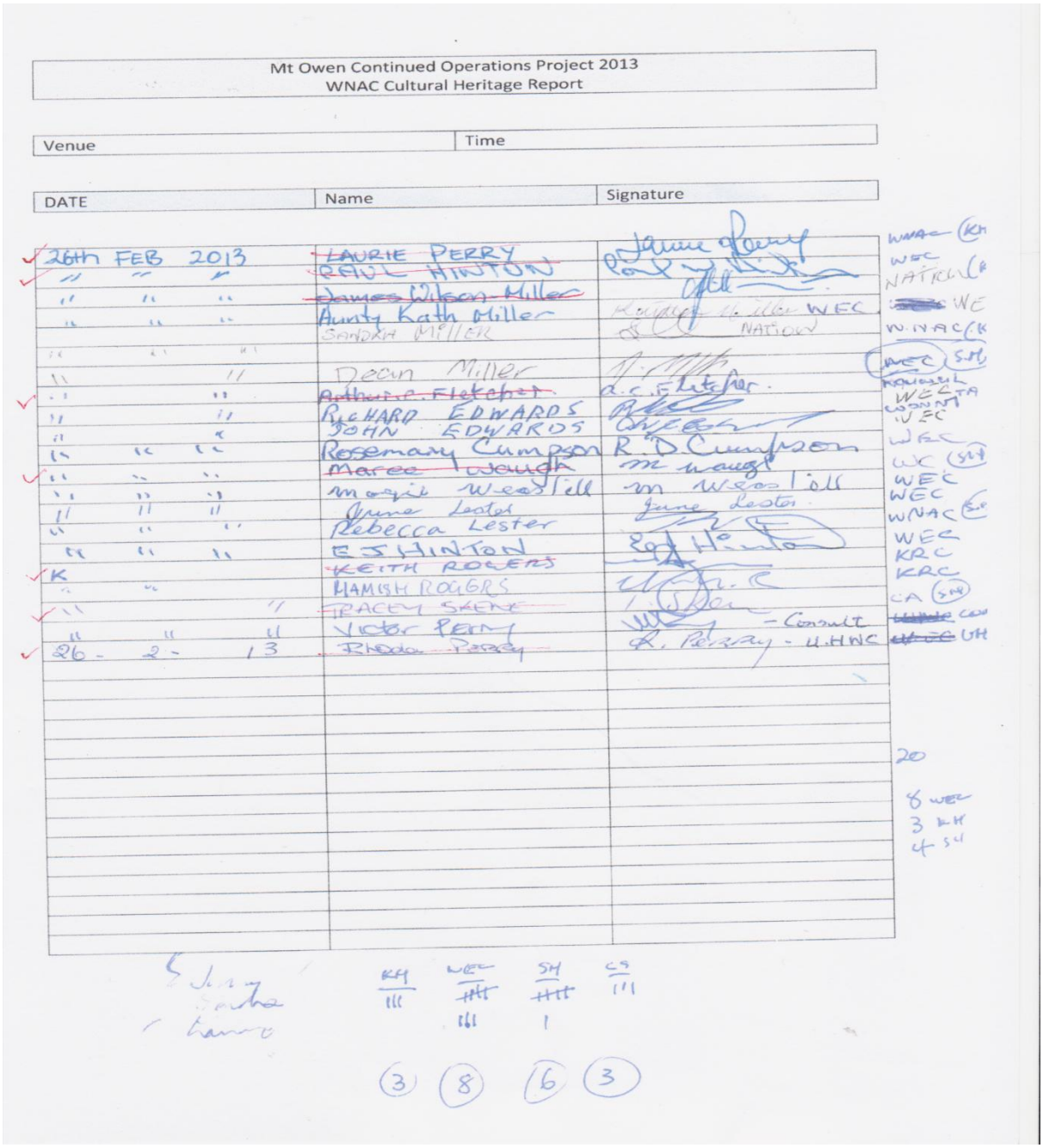
Further questions were raised around the scarred tree that is located in one of the sites. It was agreed that the tree is not an Aboriginal artefact, and that the tree was not modified by the traditional Wonnarua people's cultural practices. We will therefore revisit this issue in our future recommendations in this report.

There was a general and open discussion regarding Wonnarua tribal totems, the eating of totems and that scarred trees need to be of a certain age to qualify for them engaged in the cultural use of trees.

A further recommendation was tabled to see if Wonnarua history could be studied by the younger Wonnarua people. It would be great to have a teaching place and a teaching program where we could teach our own history to the next generation of Wonnarua people.

Lastly we thanked all the attendees for their participation and the meeting was closed at 4.30 pm.

BELOW IS THE ATTENDANCE SHEET SIGNED BY THE WORKSHOP PARTICIPANTS



Mt Owen Continued Operations Project 2013
WNAC Cultural Heritage Report

Venue	Time

DATE	Name	Signature
26th FEB 2013	LAURIE PERRY	
" " "	PAUL HINTON	
" " "	James Wilson Miller	
" " "	Aunty Kath Miller	
	SANDRA MILLER	
	Deon Miller	
	Arthur C. Fletcher	A.C. Fletcher
	RICHARD EDWARDS	
	JOHN EDWARDS	
	Rosemary Cumpson	R D Cumpson
	Maree Waugh	
	Margie Westcott	
	June Lester	
	Rebecca Lester	
	E J HINTON	
	KEITH ROGERS	
	HAMISH ROGERS	
	TRACEY SHENE	
	Victor Perry	
26 - 2 - 13	Rhoda Perry	R. Perry - Consult - U.H.W.C

20

8 WEC
3 KH
4 SH

KH III | WEC IIII | SH IIII | CS III

(3) (8) (6) (3)

3.1.4 Documentation of Consultation - Inception Meeting

The following people attended the inception meeting of the 26th February 2013 and have had input into the Mt Owen Continuation project consultation process through this meeting.

The list of people below are Wonnarua Descendants of the Gringai clan, and are also members of the WNAC and are registered as stakeholders for Cultural Heritage consultations in the hunter region through the O.E.H. process.

- Mrs Rhoda Perry ***Upper Hunter Wonnarua Council*** PO Box 184Singleton NSW 2330. One of the Elders of the Miller & Perry family.
- Tracey Skene ***Culturally Aware*** 7 Crawford Place Millfield 2325, Miller family.
- Arthur Fletcher ***Wonna 1 Contracting*** 619 Main Road, Glendale NSW 2285. Lester Family Elder.
- Laurie Perry ***Wonnarua Nation Aboriginal Corporation*** Po Box 3066 Singleton Delivery Centre NSW 2330. Perry Family.
- Victor Perry ***Upper hunter Wonnarua Council*** Po Box 3043 Singleton NSW 2330. Perry family.
- Maree Waugh ***Wonnarua Nation Aboriginal Corporation*** Po Box 3066 Singleton Delivery Centre NSW 2330. Lester Family.
- Paul Hinton. ***Wonnarua Nation Aboriginal Corporation*** Po Box 3066 Singleton Delivery Centre NSW 2330. Hinton Family.
- James Wilson Miller. ***Wonnarua Nation Aboriginal Corporation*** Po Box 3066 Singleton Delivery Centre NSW 2330. Miller Family.
- Kath Miller. . ***Wonnarua Elders Council Incorporated***. Hinton Family
- Sandra Miller. ***Wonnarua Nation Aboriginal Corporation*** Po Box 3066 Singleton Delivery Centre NSW 2330. Miller Family
- Dean Miller. ***Wonnarua Nation Aboriginal Corporation*** Po Box 3066 Singleton Delivery Centre NSW 2330. Miller Family
- Richard Edwards. ***Wonnarua Elders Council Incorporated***. Lester Family
- John Edwards. ***Wonnarua Elders Council Incorporated***. Lester Family

- Rosemary Cumpson. ***Wonnarua Elders Council Incorporated***. Lester Family
- Marjorie Anderson. ***Wonnarua Elders Council Incorporated*** . Anderson Family
- June Lester. ***Wonnarua Elders Council Incorporated*** . Lester Family
- Rebecca Lester. ***Wonnarua Elders Council Incorporated*** . Lester Family
- Ernie Hinton. ***Wonnarua Elders Council Incorporated***. Hinton Family

Mr Keith Rogers and Hamish Rogers were also in attendance, to assist, as the Wonnarua Nation Consultant for the project.

3.1.5 Fieldwork - Wonnarua Site Visits within Bulga Mine Site

The first site visit was discussed by our group and it was agreed that we could organize to inspect the area and review the most important heritage sites within this project on a weekday. The nearest date that was acceptable to our people fell on Wednesday the 27th March 2013.

The film crew who were engaged to record the site visits were also present, the company is called SBH or Studio Bacher Hoch, and this group had also helped us record our cultural information on the Bulga project in 2012.

SBH were commissioned by the WNAC on behalf of the Wonnarua people to film the site visits and to edit and produce the DVD for this project. *Refer to attachment A*

Our Wonnarua stakeholder groups were on a roster and were present during the two week walk over and inspection of the new project. This method gives much more of a feel for country and helps us to understand and access the landscape and the sites located in them.

The Wonnarua Traditional Owner's Stakeholders Group and Elders who visited the sites on the 27th March 2013 are listed below.

Georgina Berry
Tracey Skene
Richard Edwards
Rosemary Cumpson
Sandra Miller
James Wilson Miller
Ernie Hinton
Paul Hinton
Garry Reilly Phillips
Marge Anderson
Arthur Fletcher

Laurie Perry
Lee Perry
Victor Perry
Keith Rogers – WNAC Consultant

Wonnarua people site inspections 27th March 2013
On the tour we visited three sites inside and outside of the mine. We recorded what people wished to say about our connection to our land in the present sense, and how we connect to our culture from the past as individuals and as a group, with Kinship connection to Ravensworth as a part of Wonnarua Country. SBH were also present to record cultural information from our Elders and stakeholders regarding our material and visual history.

3.1.6 Wonnarua People Second Workshop

As per the terms of reference for our consultation process, a second stakeholder meeting was held in Singleton at the Bowling Club on the 24th April 2013. On the agenda was a list of discussion points that need to be addressed by our group.

The following Wonnarua people were present for the meeting and had input into the discussion.

Laurie Perry

Paul Hinton

Ernie Hinton- Family Elder

Gary Reilly

Kath Miller- Family Elder

James Wilson Miller

Sandra Miller

Marge Anderson- Family Elder

June Lester

Rosemary Cumpson

Richard Edwards

Sandra Jones

Sharon Edger Jones

Maxine Conaty

Alice Hinton- Bateup

Arthur Fletcher

Tracey Skene

Maree Waugh

Georgina Berry

Rhoda Perry

Victor Perry

Keith Rogers – WNAC Consultant

Hamish Rogers – WNAC Consultant

The meeting was opened by Wonnarua family elder Marge Anderson, who gave the acknowledgement of country for our current Wonnarua generation and remembrance of past Wonnarua achievements in the struggle to gain recognition within our homeland.

A DVD video produced by SBH was shown to all present, regarding the last group visit to the Mt Owen mine extension area, where some of our people recorded historical and personal information regarding the Ravensworth area. The video was well received by the group.

The CEO of the Wonnarua Nation and the author of the report then addressed the Wonnarua stakeholders to explain the meeting process for today's presentation and what was required from this meeting.

The different values assessments and discussions that took place in this meeting can be found in Section 5 of this report.

BELOW IS THE ATTENDANCE SHEET SIGNED BY THE WORKSHOP PARTICIPANTS

Mt Owen Continued Operations Project 2013
WNAC Cultural Heritage Report

Venue SINGLETON BOWLING CLUB | Time 10·00AM TO 4·00PM

DATE 24-4-2013	Name	Signature	
24.4.2013	PAUL W HINTON		WEC
24-4-2013	ERNEST I HINTON		LWEC
24-4-13	GARRY REILLY		UWEC
" " " " "	JAMES WILSON-MILLER		WNAC-CONSULTANT
" " " " "	DUNTY KATHLEEN MILLER		WNAC
24-4-2013	SANDRA MILLER		WNAC
24-4-2013	marcia anderson		WEC
24-4-2013	June Lesley		WEC
24-4-2013	Rosemary Crumpton		WEC
24-4-2013	Richard Edwards		WEC
24-4-2013	JOHN EDWARDS		WEC
24-4-2013	Sandra Jones		WNAL
24-4-2013	maree waugh		WALLAGAN
24.4.2013	Tracey Skene		CULLEMBA/WNAC
24.4.2013	SHARON EDWARDS		WNAC
24.4.2013	E. Perry		UHWC
24.4.2013	Alice Hinton-Bateup		WNAC
" " "	Maxine Conaty		WNAC
" " "	Kate Rogan (ARC)		CONSULTANT
24-4-2013	Victor Perry		UHWC
24-4-2013	LAURIE PERRY		WNAC

4. Summary and Analysis of Background Information

4.1 Archaeological Assessment of Activity Area

The following sections summarise the results of the archaeological surveys and test excavations undertaken during November to December 2012 and March 2013 respectively within the Project area. All RAPs have been sent copies of the summaries as well as a copy of the OzArk final Archaeology Values Assessment report.

Archaeological survey (non-test pitting component) of the Project Area was completed over two weeks (10 working days) between 26 November and 7 December 2012.

Each day, the survey crew comprised up to twelve RAP representatives, two archaeologists from OzArk (Ben Churcher and Joshua Noyer) and Gary Bernasconi (Mount Owen). The perimeter of the proposed disturbance area (See Map 1-2) had been pegged and the survey usually consisted of the crew conducting 50-100 metre wide linear transects across an area.

Archaeological survey, test pitting component, of the Project area was completed over one week (5 working days) from the 11 March 2013.

Each day, the survey crew comprised up to twelve RAP representatives, four archaeologists from OzArk (Ben Churcher, Nick Harrop, Rowan Murphy and Joshua Noyer) and Gary Bernasconi (Mount Owen).Survey Landscape

The majority of the proposed disturbance area is located on sloping or elevated landforms that are at a distance from permanent water. Such landforms historically contain low numbers of artefacts, with sites generally either consisting of low density scatters or isolated finds.

The construction of the new Hebden Road Bridge may cause disturbance across Bowmans Creek, which is the most constant water source in the survey area. This impact area is small and this portion of the creek has undergone previous disturbance from road and bridge construction, tracks for electricity and communication line easement access and past agricultural land use.

A similar area of disturbance across and adjacent to Bettys Creek is proposed for construction of the new rail spur. A significant portion of this area has been subject to past archaeological salvage, undertaken as part of the existing Glendell Mine approval process. The area is characterised as flat, with thin topsoil and extensively covered by recent Casuarina regrowth. At the time of the survey, Bettys Creek was dry and without ponds. The morphology of the creek suggests that it is now ephemeral although historically it had a chain of ponds morphology.

The only other notable drainage line is an ephemeral tributary of Main Creek, located in the eastern extent of the proposed Mount Owen North Pit extension area (referred to hereafter as 'the eastern drainage'). No water was in the eastern drainage at the time of the survey. There are several locations in its catchment that contain farm dams constructed by previous land owners. Hence, it is possible that the eastern drainage once contained ponds or swamps that have since been drained by gully erosion and dam construction.

In general, ground surface visibility was extremely low. In open paddocks, the visibility was obstructed by thick grass cover. In areas of tree cover, thick mats of dead leaves covered the ground.

Exposure incidence was low across the proposed disturbance area, with extensive erosion scalds limited to the eastern drainage. Nonetheless, historic effects of sheet erosion were noticeable, with thin topsoil noted across the proposed disturbance area. Soils ranged from skeletal on the slopes and elevated landforms to thin along Bettys Creek (old archaeological excavations adjacent to the creek that are still extant showed less than 10cm of topsoil remaining). A series of test excavation trenches and grader scrapes have been previously excavated across the Bettys Creek floodplain and most yielded thin or truncated A Horizon soils and a variable, although mostly low, density of artefacts (Allen Paget, Ungooroo Aboriginal Corporation, pers. comm.).

The proposed disturbance area has been disturbed by past agricultural land use and current approved mining activities. The entire area has been previously cleared and very few mature trees were noted during the field survey. In addition, dwellings, tracks, dams, fences and contour dykes have been constructed. These have had the effect of disturbing localised areas while the general use of the land for grazing has promoted sheet erosion and soil loss. Ground disturbance has also occurred from approved mining activities, including installation of gas wells for the existing Integra underground mine that underlies much of the Mount Owen North Pit extension area.

4.2 Survey Results

As a consequence of the types of landforms within the proposed disturbance area and the degree of past disturbance, very few artefact sites were recorded during the survey. The land assessment has recorded 11 artefact scatters and 3 extensions to previously recorded sites (see Map 4-1) and 20 isolated finds (see Map 4-2).

4.2.1 Mount Owen North Pit Extension Area

In the sloping and elevated landforms to the east, twelve isolated finds were recorded in landforms with thin topsoil. This indicates a high likelihood that there are no associated archaeological deposits associated with these sites. In areas more associated with drainage systems, four low density artefact scatters were recorded, along with on extension to a previously recorded site.

The characteristics of artefact scatters recorded in this area are as follows:

- 106 artefacts were recorded in an eroded section of the eastern drainage;
- 30 artefacts were recorded within the constructed Bettys Creek diversion channel, amongst the spoil generated from the excavation of this feature. The artefacts in this area are not in direct association to Bettys Creek but appear to represent artefacts originating in the surrounding flat landform;
- A low density scatter of twelve artefacts were recorded on an ephemeral tributary to Bettys Creek; and
- Eleven artefacts recorded in a disturbed area within the location of a former archaeological salvage programme (sites #37-3-0636 and #37-3-0649), located on a low rise above an area that may have once supported swamp vegetation.

These low numbers of identified artefacts may in part, be attributable to the low ground surface visibility. However, the majority of the landforms in this area are upslope or elevated landforms distant from permanent water sources. This type of Upper Hunter Valley landform is generally characterised with low artefact densities, small site size and low site complexity.

4.2.2 Bettys Creek Area

In the southern portions of Bettys Creek, five low density artefact scatters, three isolated finds and two extensions to previously recorded sites were recorded. This area has also been subject to extensive previous archaeological salvage programs.

The lack of artefact sites noted in this area are attributable both to the landscape, as well as past disturbances in the area, including archaeological salvage, that have potentially removed many sites from the current archaeological landscape. As noted above, this area is characterised by thin topsoil and recent Casuarina regrowth, indicating that the area has been subject to past clearing and erosion. Secondly, Bettys Creek is a variably flowing water source and therefore low artefact site densities are to be expected.

4.2.3 Bowmans Creek

Only a small portion of bank, floodplain and associated lower slopes of Bowmans Creek were assessed as the proposed disturbance area is limited. No artefacts were recorded on the floodplain but a number of isolated finds and one low density artefact scatter were recorded on the lower slopes on both the eastern and western sides of the creek.

This is in accordance with the previous site distribution recorded in this area, namely that the creek and its floodplain have poor conditions for the preservation of archaeological sites, while evidence of occupation is mostly located on the lower slopes where sites may be preserved beyond the range of most flood events.

4.2.4 Test Excavation Program

Two locations within the proposed disturbance area were subject to test excavation under the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales.* The excavations took place from 11 to 15 March 2013

The first location was adjacent to the artefact scatter recorded along the Bettys Creek diversion channel (MOCO OS-3) and the second was adjacent to the eastern drainage (MOCO OS-4).

The excavations at MOCO OS-3 recorded no artefacts in the 30 excavated pits. This result demonstrated that MOCO OS-3 is a displaced site with no adjoining intact archaeological deposits.

The excavations at MOCO OS-4 recorded 114 artefacts from 58 excavation pits located adjacent to the eastern drainage. Over 80% of these artefacts came from one concentration located in a residual land surface between the two arms of the eastern drainage. This concentration of artefacts was associated with a small cranium fragment and, possibly, a shallow pit. While this concentration showed spatial integrity and moderate artefact numbers, elsewhere across the site the artefact density was low, very low or non-existent. Even pits located 5 metres from the artefact concentration recorded no artefacts showing that the concentration is an isolated phenomenon.

The test excavation demonstrated that there is a generally low density of subsurface artefacts at MOCO OS-4 as well as one known concentration of artefacts. This data indicates that the eastern drainage was sporadically used for events such as, perhaps, hunting/butchery (cf. cranium fragment) but not for occupation due to the lack of evidence for extended use in the past. Further, the 58 pits excavated at MOCO OS-4 sampled the site comprehensively and it is unlikely that further archaeological investigation would add to the information already gained.

4.2.5 Conclusions

The results from the archaeological survey and test excavation program are representative of information that has been gained from other archaeological investigations in adjoining landforms where the dominant site types are low density artefact scatters and isolated finds. This result is a product of both the types of landforms under assessment and history of past land uses that have manifested in widespread modification of the archaeological landscape. The greatest determinant is that the proposed disturbance area has a low proportion of drainage landforms and the systems that are in the proposed disturbance area are all small with a highly variable water flow that diminishes their attractiveness for occupation. In addition, the proposed disturbance area has been completely cleared of trees in the past and subject to major soil loss, as well as other impacts such as mine infrastructure, revegetation and previous archaeological salvage. This has had the effect to remove or displace many sites within the proposed disturbance area.

It can be noted that sites of this type are becoming rarer in the greater Ravensworth area as the concentration of mining has initiated many archaeological salvage programs that have effectively removed well over half of this site type from the immediate region.

The condition or integrity of the recorded sites is poor as sheet wash erosion and other disturbances have , in most cases, already displaced the artefacts recorded during this investigation. Results from the test excavation program and other archaeological investigations within the proposed disturbance area also demonstrate thin top soils and a lack of archaeological stratigraphy in the area.

4.3 Scientific Significance Assessment

OzArk has conducted an Archaeological Values Assessment of the likely impact of the Project, if approved, on known archaeological sites. The current assessment has recorded 11 artefact scatters, 20 isolated finds and 3 extensions to previously recorded sites.

Of the 34 newly recorded sites (11 artefact scatters, 20 isolated finds and three site extensions), all but five are within the Proposed Disturbance Area and are liable to be harmed by the Project. The five sites outside of the Proposed Disturbance Area are within 50m of the disturbance boundary. One other previously recorded site is also likely to be harmed by the Project.

In total, the Project is likely to harm 30 Aboriginal sites: 22 sites will be totally impacted by the proposed works and eight sites will be partially impacted. Five sites are located immediately adjacent to the Proposed Disturbance Boundary but will not be impacted by the Project.

The overall scientific significance of sites within the Proposed Disturbance Area has been lowered due to:

- wide-spread soil loss that affects nearly all portions of the Project Area;
- major disturbances from approved mining activity including built infrastructure, soil dumps, tracks, the diversion of water away from creeks and other mine related impacts such as revegetation programmes;
- the archaeological landscape within the Proposed Disturbance Area being fragmented by approved mining; and
- the varying degrees of archaeological salvage that has been carried out.

As a result, no areas are assessed to have high or moderate scientific significance.

The majority of sites (31; including 10 artefact scatters, two extensions to previously recorded sites and 19 isolated finds) have been assessed as having low scientific significance. In most cases this is because the sites are low density artefact scatters or isolated finds located in landforms with thin A Horizon soils where further subsurface archaeological deposits are unlikely. In some cases the artefacts may be more numerous but erosion has affected a large percentage of the site and the visible artefacts are displaced and of limited archaeological value.

The high frequency of low scientific significance is directly related to the extensive and long-running previous disturbances within the Proposed Disturbance Area.

Three sites have been assessed as having low-moderate scientific significance. Two of these sites are artefact scatters and they carry this slightly higher assessment as they have the possibility of further subsurface archaeological deposits although these deposits are likely to contain a low density of artefacts. The third site (MOCO IF-16) attains this level of significance due to the rarity of the artefact type, rather than its association to other artefacts or to subsurface contexts.

Table 4-1 (below) presents the scientific significance assessment of the artefact scatters and isolated finds recorded during this assessment. Under the column 'Rationale' a brief explanation is given of those site features that elevate or lower a particular site's scientific significance.

Table 4-1:Scientific assessment of the harmed archaeological sites within the Project disturbance area

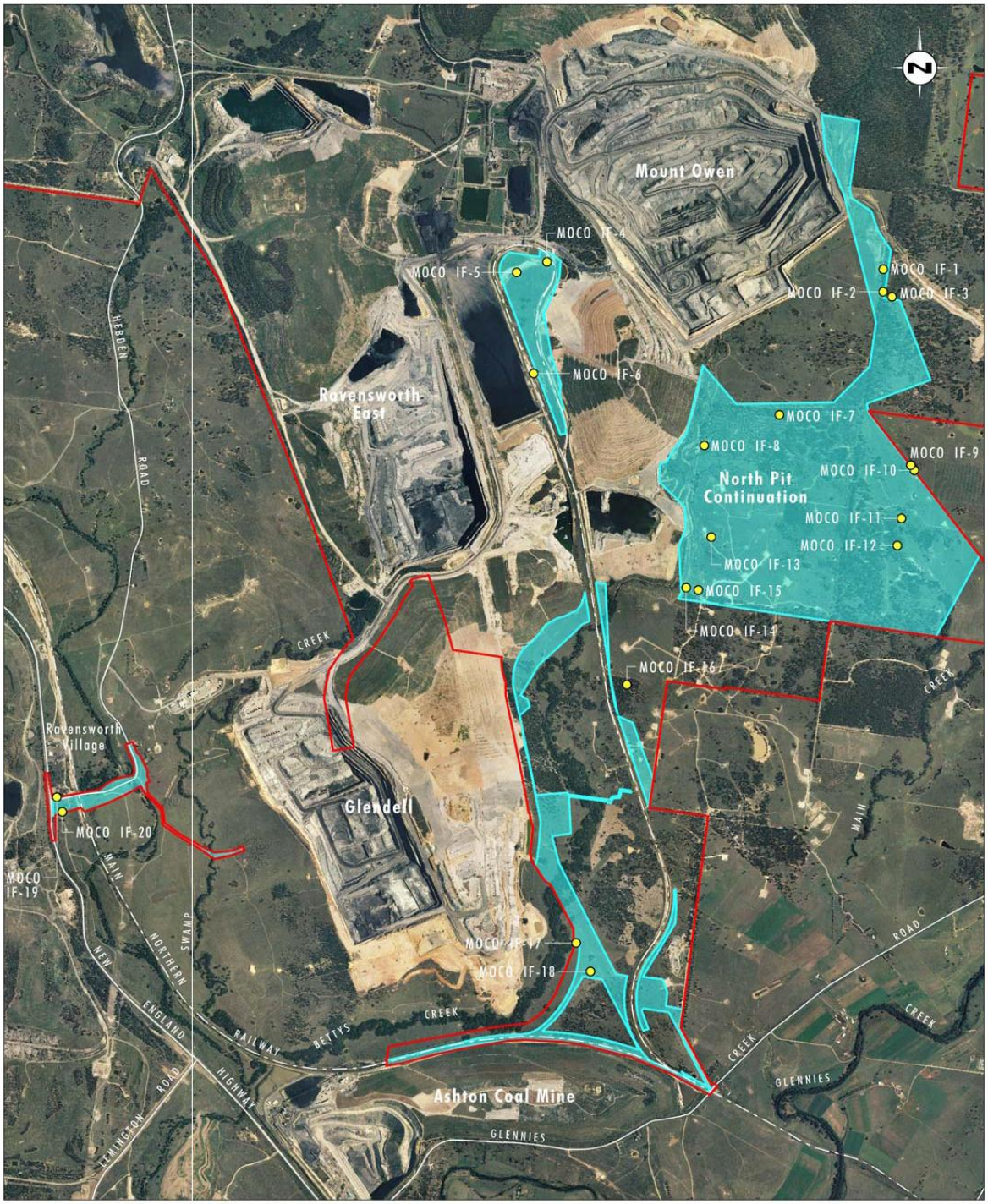
Site Number	Site Description	Scientific Significance	Rationale
MOCO OS-1	Artefact scatter covering approximately 157m by 40m along minor ephemeral tributaries to Bettys Creek. Located in the north of the Proposed Disturbance Area. Extends outside the Proposed Disturbance Area.	Low	Low density scatter High disturbance Previous archaeological salvage
MOCO OS-2	Artefact scatter covering approximately 78m by 24m in a flat portion of a lower slope landform. Not associated with any obvious waterways. Located in the north of the Proposed Disturbance Area.	Low	Low density scatter Thin A Horizon soils Low potential landform
MOCO OS-3	Artefact scatter covering approximately 305m by 28m along the Bettys Creek diversion. Highly disturbed site. Located in the northwest of the Proposed Disturbance Area.	Low	Re-deposited site No archaeological deposits in adjoining areas as testing confirmed
MOCO OS-4	Artefact scatter extending approximately 525m by up to 263m on both banks of the eastern drainage. Located in the northeast of the Proposed Disturbance Area.	Low-Moderate	Low density scatter Some potential for further subsurface artefacts Low potential for further discrete concentrations of artefacts as seen in the test excavation program Archaeological integrity present but very limited in its extent.
MOCO OS-5	Artefact scatter extending approximately 208m by up to 30m along a water drain to the east of the Mount Owen rail spur. Located in the centre east of the Proposed Disturbance Area.	Low	Low density scatter High localised disturbance Representative of the background density of artefacts associated with the banks of Bettys Creek
MOCO OS-6	Diffuse artefact scatter on the west bank of Bettys Creek in the Bettys Creek Habitat Management Area. The site spans the Proposed Disturbance Area (rail spur).	Low	Diffuse artefact scatter Thin A Horizon soils Representative of the background density of artefacts associated with the banks of Bettys Creek Previous archaeological salvage
MOCO OS-7	Low density artefact scatter on the east bank of the main channel for Bettys Creek. The site spans the Proposed Disturbance Area (rail spur).	Low	Very low density scatter Representative of the background density of artefacts associated with the banks of Bettys Creek
MOCO OS-8	Low density artefact scatter in an area of general high disturbance. Located to the east of the existing Mount Owen rail spur. The site spans the Proposed Disturbance Area (rail spur).	Low	Low density scatter High disturbance Thin A Horizon soils Low potential landform
MOCO OS-9	Medium density artefact scatter located along a service track immediately north of the main rail line. The site is immediately adjacent to Bettys Creek that is located to the north of the site. The site spans the Proposed Disturbance Area (rail spur).	Low	Medium density scatter Moderate disturbance Previous archaeological salvage Thin A Horizon soils
MOCO OS-10	Low density artefact scatter located on a rocky rise adjacent to the northern bank of Bowmans Creek. The site spans the Proposed Disturbance Area (Hebden Road realignment).	Low	Low density scatter High disturbance Thin A Horizon soils
MOCO OS-11	Very low density artefact scatter on the east bank of Swamp Creek.	Low	Low density scatter Thin A Horizon soils
MOCO Extension to site #37-3-0649	Located on the northern bank of a tributary to Bettys Creek.	Low	Low density scatter Thin A Horizon soils Previous archaeological salvage failed to locate artefacts
MOCO Extension to site #37-3-0611	Located along a minor, ephemeral tributary to Bettys Creek.	Low-Moderate	Low density scatter A Horizon soils present

			Moderate potential landform with other extant sites in the vicinity Possibility of further subsurface artefacts at a low density
MOCO Extension to site #37-3-0600	Located 30m from the eastern bank of Bettys Creek.	Low	Extensively excavated during 2005/2006 Recorded shallow deposits, low density artefact counts and an absence of archaeological stratigraphy Remaining artefacts are representative of the background density of artefacts associated with the banks of Bettys Creek
MOCO IF-1	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-2	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-5	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-7	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-8	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-9	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-10	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-11	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-12	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-13	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-14	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-15	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-18	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-19	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
MOCO IF-20	Flaked stone artefact	Low	No associated artefacts or archaeological deposits
#37-3-0985	Artefact scatter	Low	Low density scatter High disturbance

Map 4-1: Location of new artefact scatters and extensions to existing sites recorded during the MOCO assessment.



Map 4-2: Isolated finds recorded during the MOCO assessment.



4.4 Historical Information Relevant to the Project

The study area is located inside our Traditional Country. It will always be an important part of our history notwithstanding that our ancestors were removed and dispossessed from our homeland, which happened to all Aboriginal Tribal people across Australia.

As for the current study area, there has been little opportunity for our Wonnarua people to walk on this country during the last 190 years, mainly due to the private ownership of our land since the English settlers were given occupation rights and title to our Wonnarua homeland.

Because of these historic reasons associated with the settlement of Australia, most if not all of the area has been unavailable for Wonnarua people to access for generations. Therefore the sites reviewed in the study area are new to us, and consequently we have limited specific knowledge of the individual sites found.

That being said, the study area is a part of the larger Wonnarua homeland and has a broader value as a significant historic part of Wonnarua heritage and for this reason becomes important to our descendant Wonnarua people living today.

The study area is within a few kilometres of the old St Clair Mission reserve where our families once were forced to live because of the NSW Government policies toward Aboriginal people toward the turn of the 20th century. It was noted during our stakeholder site visit, that the study area is not very far from the mission station.

Our ancestors more than likely hunted game through this area over a 100 years ago. This is a very important value for us to consider, as we can connect to this area in more recent times. This is a part of our oral history and forms part of our cultural information for this area.

Our ancestors moved from the Mission when it was closed by the Government and moved into the township of Singleton in the 1920s. Therefore, up until this year, 2013, no Gringai Wonnarua man or women has probably seen this area during this timeframe.

The historical values associated with this land are dealt with in more depth in Section 5.

5. Cultural Heritage Values and Significance Assessment

Assessing the cultural significance of places or objects is central to both understanding and managing heritage places, and is a requirement of the Aboriginal Cultural Heritage Assessment reporting process. This section briefly describes the process and presents the cultural significance assessment for the Aboriginal heritage places in the Project disturbance area.

5.1 Nature of Cultural Significance

The nature of cultural significance is determined by understanding the interrelationship of the following four key values, and the constituent factors which are assessed.

5.1.1 Aesthetic Value

A place or object can have cultural significance if it is significant in exhibiting particular aesthetic characteristics. Such as:

- Importance to a community for aesthetic characteristics.
- Importance for its creative, design or artistic excellence, innovation or achievement.
- Importance for its contribution to the aesthetic values of the setting demonstrated by a landmark quality or having impact on important vistas or
- Otherwise contributing to the identified aesthetic qualities of the cultural environs or the natural landscape within which it is located.
- In the case of an historic precinct, importance for the aesthetic character created by the individual components which collectively form a significant streetscape, townscape or cultural environment.

5.1.2 Historic Value

A place or object can have cultural significance if it is significant in exhibiting particular historic characteristics. Such as:

- It is significant in the evolution or pattern of the history of a locality, region, state or nation.
- Importance for the density or diversity of cultural features illustrating the human occupation and evolution of the locality, region, state or nation.
- Importance in relation to an event, phase or activity of historic importance in the region, state or nation
- Importance for close association with an individual or individuals whose life, works or activities have been significant within the history of the region, state or nation
- Importance as an example of technical, creative, design or artistic excellence, innovation or achievement in a particular period.

5.1.3 Scientific Value

A place or object can have cultural significance if it is significant in exhibiting particular scientific characteristics. Such as:

- It has demonstrable potential to yield information that will contribute to an understanding of the natural or cultural history of the region, state or nation
- Importance for information contributing to a wider understanding of natural or cultural history by virtue of its use as a research site, teaching site, type locality, reference or benchmark site.

- Importance for its potential to yield information contributing to a wider understanding of the history of human occupation of the locality, region, state or nation.
- It is significant in demonstrating a high degree of technical innovation or achievement.
- Importance for its technical innovation or achievement.

5.1.4 Social Value

A place or object can have cultural significance if it is significant in exhibiting particular social characteristics. Such as:

- Association with a community or cultural group for social, cultural, educational or spiritual reasons.
- Importance as a place highly valued by a community or cultural group for reasons of social, cultural; religious, spiritual, aesthetic or educational associations.
- Importance in contributing to a community's sense of place.

5.2 Degree of Cultural Significance

Once the nature of the cultural significance of a place or object is understood, it is essential to understand the extent or degree of that cultural significance. This is established by considering:

5.2.1 Rarity

A place or object can have cultural significance if it:

- Demonstrates or possesses rare, uncommon or endangered aspects of the cultural heritage of a locality, region, state or nation.
- Demonstrates or possesses rare, endangered or uncommon structures, landscapes or phenomena.
- Demonstrates or possesses a distinctive way of life, custom, process, land-use, function or design no longer practiced in, or in danger of being lost from, or of exceptional interest to, the region, state or nation.

5.2.2 Representativeness

A place or object can have cultural significance if it:

- Is significant in demonstrating the characteristics of a class of cultural places or environments in the State.
- Is important in demonstrating the principal characteristics of a range of landscapes or environments, the attributes of which identify it as being characteristic of its class.
- Is important in demonstrating the principal characteristic of the range of human activities (including way of life, philosophy, custom, process, land-use, function, design or technique) in the environment of the locality, region, state or nation.

5.2.3 Condition, Integrity and Authenticity

- Condition refers to the current state of the place in relation to each of the values for which that place has been assessed. Condition reflects the cumulative effects of management and environmental events.
- Integrity is a measure of the likely long-term viability or sustainability of the values identified, or the ability of the place to restore itself or be restored, and the time frame for any restorative process.
- Authenticity refers to the extent to which the fabric is in its original state.

5.3 Summary of Values

Value	Notes	H/M/L
Stories and Oral history of the land	Traditional history and stories of all land were passed down from one generation to another. Site specific stories for this land are not generally known, but contemporary history may exist. Eg, in vicinity of old railway fettler camps.	Medium
Wonnarua Tribal Law	Under the customary Wonnarua Tribal Law, Wonnarua people have an obligation to care, maintain and protect this part of the country, however they can no longer enforce customary Law for its protection	High
Lost connection for future generations	Today's generation have not been able to see and enjoy the land and it will be lost to future generations.	High
Traditional Usage/Important Areas	Although there is not a large density of surface artefacts, this does not mean that our ancestral Wonnarua people did not use this area to hunt or gather in. Traditional sites could be In situ, or have already been moved or destroyed. Important areas include any combination of certain Wonnarua Cultural Places, such as Bora Grounds, Spiritual Teaching Areas, Stone Arrangements, Traditionally visited Camping Areas, Dreamtime Sites and Song Lines as well as Scarred Trees for Ceremonial and War Shields	High
Direct Connection to Land	We still see value in this area because of our direct connection to the land. Therefore the whole landscape still has value to us because of the spiritual connection we have for our country. Our Wonnarua ancestors had worked this land and lived here. This land will always retain a connection for us as the descendants of our old people. "we belong to the land and the land protects us." Lack of specific knowledge doesn't diminish our spiritual, physical or visual connection to this area.	High
St Clair Mission	It has been noted by our people that the area is within a few kilometres of the old St Clair Mission, where our families once were forced to live. Our people have a historical connection to the mission and the surrounding area, and it is very significant to the Wonnarua people. As mining starts to encroach towards this site, its priority grows, in the eyes of Wonnarua People. This is because we still legally own this land, and it is the central site of our cultural reclamation programs.	Highest
Flora and Fauna	Our people assert that there could be Tiger quolls living in the region, and the protection of these rare endangered native animals must be considered. It is also acknowledged by our people that there was up to 125 different species of flora including some mature trees in the region	Medium
Reconnection to Country	We need to see our country in order to protect it. If the mine totally changes the environment, then how do we connect with the mess that is left behind? We are usually not involved in the rehabilitation of the land, and therefore are locked out of the caring for country aspect. This denies us the opportunity to reconnect to country. Being involved in rehabilitation would assist us in reconnecting to our traditional country.	High
Connection to Archaeological sites and Artefacts	Wonnarua People have a particular concern about what will happen to the cultural material after it is dug up. There should be provision for our kids to see it in the future. There is a great need for our future young people to know and understand our cultural material, including stone tools and artefacts. This is especially relevant to the tributary site (Test Area 2) where there was the greatest concentration of artefacts.	High

5.4 Assessing Significance

At the second Wonnarua People workshop, the knowledge holders and other stakeholders were consulted about different values regarding the land. This consultation was used to compile the following information regarding social, historic, scientific and aesthetic values.

5.4.1 Social Values

There were statements and discussion regarding the social values centred around our views on the future generations, who will not see our homeland as it was when our ancestors lived and used it. One of our stakeholder remarked that perhaps it would be a good idea to plant a time capsule.

This would enable future Wonnarua people to find out what we were doing and to help them understand what we did for our country. It would also acknowledge the efforts made by those here today to preserve and retain key elements of Wonnarua culture.

A record of the current social values, what we are going through now and other items could be placed in the time capsule explaining some of the cultural and social beliefs of the Wonnarua people. This could include

- thoughts about our spirituality,
- what Sara Madoo did in the area as she would have been schooled in the pre occupation times and
- a commentary about the Wonnarua cultural values that were developed during the last 40,000 years.

Back in the tribal past, our social belief system sustained the Wonnarua people through the continued connection to our land, our dreaming, customs and social values. This, in turn, helped to maintain our families by following the kinship and marriage rules, which is all part of who we are as a distinct tribal group.

The current changes in social values have been forced upon us by the historical past and European settlement of our homeland, but this does not change us from being Wonnarua people. In the past, we had control of our future, but our ancestors had to change in order to survive.

We were the first Aboriginal people to allow children of mixed marriage to survive in order for our blood line to remain and retain our identity as Wonnarua people to the present day. We will retain these core values, because they will strengthen us, in the future, as long as we adhere to them.

The mining of our country has also changed our homeland, but this does not change us. We are still Wonnarua people. We have considered and concluded that any intergenerational equity initiatives must support this concept.

We as individuals must continue to act as a group to up hold our traditional social values. An example of this would be *possum skin cloak making*, which is a modern symbol of continuing traditional cultural practices. The retention and reclamation of these values have helped to bond our families through shared social values, from our historical past.

These thoughts and musings, as was given to us by one of our Elders, were strongly supported by our participants as we believe they have captured the essence of our social values.

5.4.2 Historic Values

The study area is located inside our Traditional Country. It will always be an important part of our history notwithstanding that our ancestors were removed and dispossessed from our homeland, which happened to all Aboriginal Tribal people across Australia.

As for the current study area, there has been little opportunity for our Wonnarua people to walk on this country during the last 190 years, mainly due to the private ownership of our land since the English settlers were given occupation rights and title to our Wonnarua homeland.

Because of these historic reasons associated with the settlement of Australia, most if not all of the area has been unavailable for Wonnarua people to access for generations. Therefore the sites reviewed in the study area are new to us, and consequently we have limited specific knowledge of the individual sites found.

That being said, the study area is a part of the larger Wonnarua homeland and has a broader value as a significant historic part of Wonnarua heritage and for this reason becomes important to our descendant Wonnarua people living today.

The stakeholders then started discussions on historic values associated with the study area.

- It was noted that there was not a large density of surface artefacts found within the whole of the surveyed landscape or study area. This does not mean that our ancestral Wonnarua people did not use this area to hunt and gather in, it just indicates that the sites are in situ and have not been found yet.
- It was noted that the historical value of the area is still relevant for us today, but the question was raised as to what this means for our mob today.
- The discussion then focused on the government regulations and laws around stopping this extension and what this would mean if we wished to exercise our right to say "no, we do not approve of this project". We looked at the possible outcomes if we were to agree on this pathway.
- As people who have cultural authority, we still see value in this area because of our direct connection to the land. Therefore the whole landscape still has value to us because of the spiritual connection we have for our country.
- In our eyes, we still belong to our country and our entire homeland is a part of us in that sense.
- Our Wonnarua ancestors had worked this land and lived here. This land will always retain a connection for us as the descendants of our old people. It was stated "we belong to the land and the land belongs to us" and not having specific knowledge doesn't diminish the spiritual, physical or visual connection that we have for this land.
- Our collected knowledge of the study area was discussed, with some information spoken recalling that the historical records of the day contain some post contact fighting between the central clan groups of the Wonnarua people and the English settlers and mounted police units. This was said to have occurred early in the 1820s. A massacre was also noted to have happened where a number of Wonnarua people were said to have died, although no one was sure if they were men, women or children killed in the skirmish.

No one within our group has any current information as to where this battle or skirmish took place nor do we know where these people were buried. It was agreed that we must never forget the sacrifices that our Wonnarua people made when they fought for their land against the English settlers who were taking their homeland away from them. As a result, we are the living embodiment of the past actions against our people.

- Much of the historical values are addressed in the cultural video for the area and a full understanding of our cultural information can be learned through our oral history. We also see the need to leave a good history for the future Wonnarua people, so that they can see what has happened to us during the last 200 years.

Lastly, the study area is within a few kilometres of the old St Clair Mission reserve where our families once were forced to live because of the NSW Government policies toward Aboriginal people toward the turn of the 20th century. It was noted during our stakeholder site visit, that the study area is not very far from the mission station.

Our ancestors more than likely hunted game through this area over a 100 years ago. This is a very important value for us to consider, as we can connect to this area in more recent times. This is a part of our oral history and forms part of our cultural information for this area.

Although most of our post contact history has been a story of survival for most of the coastal tribes, the Wonnarua people have made great efforts to continue our strong connection in this area. Our family have an unbroken line back to before contact times and our people will always come forward and identify with this country for generations to come.

Our ancestors moved from the Mission when it was closed by the Government and moved into the township of Singleton in the 1920s Therefore, up until this year, 2013, no Gringai Wonnarua man or women has probably seen this area during this timeframe.

5.4.3 Scientific Values

As for discussion around this point, we are well aware of the archaeological values that are a part of the reporting process that government legislate. This includes an environment consultation review as well as determining what the region's people think about the new developments that affect whole landscapes.

Our people have been a part of the site survey process now for the past 20 years or more and understand the archaeological assessment process better than most. For the most part, this is the only opportunity that Aboriginal people have had to comment on the future of our Cultural Heritage before the Government planning processes result in consent to destroy our sites and our traditional country.

Archaeology has, in the past, been the main focus of the current development evaluation process by the state Government. The process is now evolving and taking a more balanced approach that incorporates scientific and cultural values in a more balanced overall assessment. Scientific data is useful and can inform our people about the age of some of the sites excavated and complement our traditional knowledge about the how and when the areas were used. Archaeology does have a role to play around the Cultural Heritage management but must be limited and certainly must not be the only information relied on when the developer applies for the consent to destroy the land.

For too long it has been our opinion that the cultural significance of the sites and landscape have not been given enough weight regarding protection versus the development.

We are unable to offer further detailed comment here, but will review our position once we are in possession of the archaeologist's full report and the draft scientific evaluation.

Our Sara Madoo stakeholders were involved in the whole survey and test pitting during the inspection and recording of all the Aboriginal sites inside the project, and will provide our opinion around the Archaeological assessment when finalised.

Some archaeological excavations have been beneficial in the past, but we believe that we have seen enough archaeology to say that digging up the past will not give the Wonnarua people any more new information about what our tribal ancestors were doing in the last 20,000 years. We believe that spending more money on archaeology is wasting a valuable resource, and we would strongly support the redirection of some archaeological funding to be spent on tangible programs that will improve the current social standing of Wonnarua people.

To date we have lost over 3500 cultural heritage camping sites since the 1980s mining boom, while over 30 million dollars has been spent on archaeology studies associated with mine development. The vast majority of this money has been derived by non-Aboriginal consultants.

From our position we see no value in continuing along this line as not one full time position has been created because of archaeology associated with the mining process. We believe that we need a new

process, direction and strategy to assist the Wonnarua people conserve, and protect our heritage and natural environment.

5.4.4 Aesthetic Values

Our people assert that there could be tiger quolls living in the region and the protection of these rare native animals must be discussed. It was also acknowledged that there was up to 125 different species of flora including some mature trees in the region.

There was some discussion regarding the underground gas wells located in the area and the possibility for the existence of poisonous gases that could escape.

The nature of open cut mining will have a devastating effect on the flora and fauna and coal mining, in that respect, has some visual and aesthetic costs associated with it.

The touch, smell and feel of the land will disappear and they will never get it back again. Once this area has been mined by open cut methods it is gone forever.

This issue has been previously identified by Wonnaura People in other reports, during the last 20 years, but nothing has changed regarding protecting areas of importance to the Wonnarua people.

Therefore we strongly put forward to the minister and the developer that connection to country for Wonnarua people is a whole range of complicated values. For one, we need to see our country in order to protect it. If the mine totally changes the environment, then how do we connect with the mess that is left behind? We are usually not involved in the rehabilitation of the land, and therefore are locked out of the caring for country aspect. This denies us the opportunity to reconnect to country.

One question that was raised by our group was concerning land offsets or adjacent, comparable land for the protection of flora and fauna. Such an offset arrangement would then allow the natural environmental to re-establish itself, in a sanctuary environment that can be protected in perpetuity. Wonnarua People, through a new business venture currently being established, could then assist by helping to plant new native trees in the Wonnarua Native sanctuary and in so doing, reconnect to our traditional country, even though the landscape has changed.

It is the consensus of the group that there is not enough being done regarding the environmental offsets and protection and ongoing management for serious native conservation in the Upper Hunter region.

It must also be noted that native conservation land offsets should not be land located within mine leases. Bitter experience, over the last 20 years, has shown us that such conservation zones have been put to the sword through future mine extensions, similar to what is happening in the case of Mt Owen.

5.5 Statement of Cultural Significance

In regards to the cultural significance of the Mount Owen Continued Operations Project there are other more culturally sensitive landscape not far away from the development which would be of greater importance to the Wonnarua descendants of Sarah Madoo, that being said this area is still important because it is still a part of our tribal homeland and for that reason alone it still need our attention and interest.

6. The Proposed Activity

6.1 The Proposed Project Summary

The proposed Project will seek approval to continue mining the Mount Owen North Pit to the south of the current approved pit limit (See See Map 2-1).

XMO expects that mining will be completed within the currently approved area of the Mount Owen North Pit by 2018, subject to approval and market conditions, and if approved the Project extension will add approximately 12 years of mining beyond the current existing approved pit shell.

The proposed Project would recover an approximate additional 80 Mt ROM coal with a mine design that maximises the practical coal recovery within the leases currently held by Mount Owen.

The existing approval's annual mining rates, operating hours, equipment type and mining methodologies are proposed for this mine extension. Mining depths will vary from approximately 180 metres to 300 metres below ground level.

The Project's Infrastructure proposed upgrades, include:

- Provision for a northern rail line turn-out and new rail line;
- Hebden Road overpass over Main Northern Rail Line; and
- New Hebden Road bridge crossing over Bowmans Creek;
- Product stockpile extension;
- MIA extensions and improvements

The key project mining aspects include:

- The Project Area encompasses the proposed mining disturbance footprint (360 Ha) in addition to the areas associated with the proposed rail augmentation and Hebden Road works (proposed disturbance area of 104 ha).
- This Project Area encompasses the current approved development consent areas for Mount Owen and Ravensworth East in addition to the areas associated with the proposed rail augmentation and Hebden Road works, and is shown in Map 1-2 with the total proposed disturbance area is within the Project Area.
- All the Project activities are fully enclosed within the Project's disturbance 464 ha footprint and areas have been subject to various forms of salvage and mitigation works over the past 20 years in consultation with registered Aboriginal parties.
- The proposed final landform will result in a void to the south west in the Mount Owen North Pit's extraction limits, and will be rehabilitated to a safe and stable landform.
- To provide water and flexibility to other Glencore's operating mines the Project will maintain the Mount Owen Main Water Storage dam (See 6-1)
- The tailings and coarse reject emplacement areas (West Pit and RERR mining area) will be capped and rehabilitated. In addition, all infrastructure associated with the Project will be decommissioned and rehabilitated.

6.1.1 Project Key features

Key features of the Project include:

1. An approximate 360 hectare extension of the Mount Owen North Pit in a southerly direction (from the current approved Mount Owen North pit shell);
2. Infrastructure upgrades, of proposed 104 hectares, including:

- Provision for a northern rail line turn-out and new rail line;
- Hebden Road overpass over Main Northern Rail Line; and

- New Hebden Road bridge crossing over Bowmans Creek;
- Product stockpile extension;
- MIA extensions and improvements;
- all works on Mount Owen owned land and mining tenements;

3. a continuation of the existing Mount Owen North Pit and Ravensworth Mine and maintaining the use of the associated Complex infrastructure at the same approved production rates, manning and operating hours;
4. the extraction of approximately 120Mt of ROM coal over the life of the Project by existing open cut mining methods (an additional 80Mt ROM coal over existing approved mining areas);
5. continued open cut mine life of 12 years to 2030 and the ongoing employment of 660 Mount Owen North Pit employees;
6. an increase to the currently approved processing and load-out capacity at the Mount Owen CHPP from 15 Mtpa to 17 Mtpa to allow for capacity to wash ROM coal to match current operational production rates for the Mount Owen Complex;
7. continued use of Ravensworth East voids for tailings emplacement as well as in-pit as well as co-disposal of coarse reject in Ravensworth East Emplacement Area and within the North Pit;
8. maximising the use of previously disturbed areas and existing mining infrastructure at the Mount Owen and Ravensworth East mines, thereby minimising the overall proposed disturbance area as far as practicable, with no additional out of pit emplacement areas in the proposed Project;
9. progressive rehabilitation of the Mount Owen North Pit footprint and the Ravensworth East disturbed areas, merging landforms across the Complex + a safe a stable final landform
10. employment of 330 contractors for the construction tasks of Project establishment over a two year period at a cost of $150 million;
11. maintain the approval to transfer ROM coal to the Liddell and Bayswater power stations via the Ravensworth East and M-series conveyors. As part of the Project, Mount Owen is seeking approval to transport up to 2 Mtpa of ROM coal and crushed gravel on an as needs basis via the existing overland conveyor to Liddell Coal Operations and the Ravensworth Coal Terminal (RCT)
12. Utilisation of the existing crushing plant for the crushing of overburden in MIA and at Ravensworth conveyor station
13. an extension of mine life for 21 years, nominally mining will be completed by 2030.

6.2 Project Rationale

OEH (2011) guidelines state that an ACHA report includes the following:

> *'Justification for any likely harm, including a discussion of any alternatives considered for the proposal. This must demonstrate how all feasible options to avoid or minimise harm were considered'.*

Cultural impacts and issues identified from registered Aboriginal parties' engagement in relation to both the Project, and the existing mining operations past assessments at Mount Owen have been considered in the Project's design.

Mount Owen will present further information on Project rationale and constraints to the registered Aboriginal parties during late **Stage 3** of the ACHA consultation process.

The options and alternatives developed in the Project design process were developed through a risk-based approach that aimed to maximise resource extraction within the owned mining tenements, optimise the use of existing mining infrastructure, whilst minimising impacts to the environment and community.

The key issues considered in assessing the viability and feasibility of various alternatives and developing the final Project design was:

- Managing environmental impacts on the surrounding community over the life of the Project;
- Maintaining the financial viability of the Mount Owen complex by continuing to optimise the use of its existing infrastructure;
- The potential impacts to Aboriginal cultural heritage and historic heritage;
- Minimising impacts on State Forest, biodiversity and water resources;
- Mining designs based on safe and stable highwall and lowalls, with the faulting and disturbances through the proposed mining area;
- Minimising social impacts, including the potential loss of agricultural land; and
- Future landform and potential land uses following closure of the Project.

The Project has some Aboriginal cultural heritage sites which have been avoided and others which could not be avoided, with the direct impacts in the proposed mine plan include those sites identified in the disturbance area of the Project.

The follow sections describe how the project plan has avoided harm in its design, and how the Project is managing harm, where activities are undertaken where there exists known cultural aboriginal sites.

6.3 Mining Area

Mining to the south of the Mount Owen North Pit

Mount Owen has undertaken detailed pre-feasibility and iterative environmental studies as part of the Project's design phase to identify and mitigate potential environmental and social impacts, impacts to other mining operations and impacts on surrounding land users.

Mount Owen proposes to continue mining operations beyond the current approved Mount Owen North Pit shell to the south, as shown on Map 2-1. It is proposed that the current approved pit shell would be extended by an additional estimated surface disturbance footprint of approximately 360 hectares. The mining area was planned such that it does not encroach to the east to the State Forest or any known high significance scientific or cultural site. The Project mining area does not damage any existing water courses.

The Project's out of pit dumping and tailings management uses only the current disturbed mining areas. The proposed Project does not mine further south or east and maintains mining in Mount Owen's currently owned land holdings.

The Project does not impact upon any Aboriginal or historic sites of high significance known to Mount Owen.

Mining, Rehabilitation and Final Landform

Mount Owen proposes to continue mining operations beyond the current approved Mount Owen North Pit shell to the south, as shown on Map 6-1.

It is proposed that rehabilitation for the Project will be undertaken progressively using practices in accordance with the existing approved Landscape Management Plan for the Mount Owen Complex, which would be updated, should the Project be approved. As part of existing operations at the Mount Owen North Pit, overburden emplacement currently extends to a maximum of 230m AHD, but landform height will reduce during the continuation of the Mount Owen North Pit. The proposed final landform will result in a final void in the Mount Owen North Pit and a Mount Owen Main Water Storage dam (See Map 6-1).

The tailings and coarse reject emplacement areas (West Pit and RERR mining area) will be capped and rehabilitated.

6.4 Infrastructure Areas

6.4.1 Areas not being further impacted

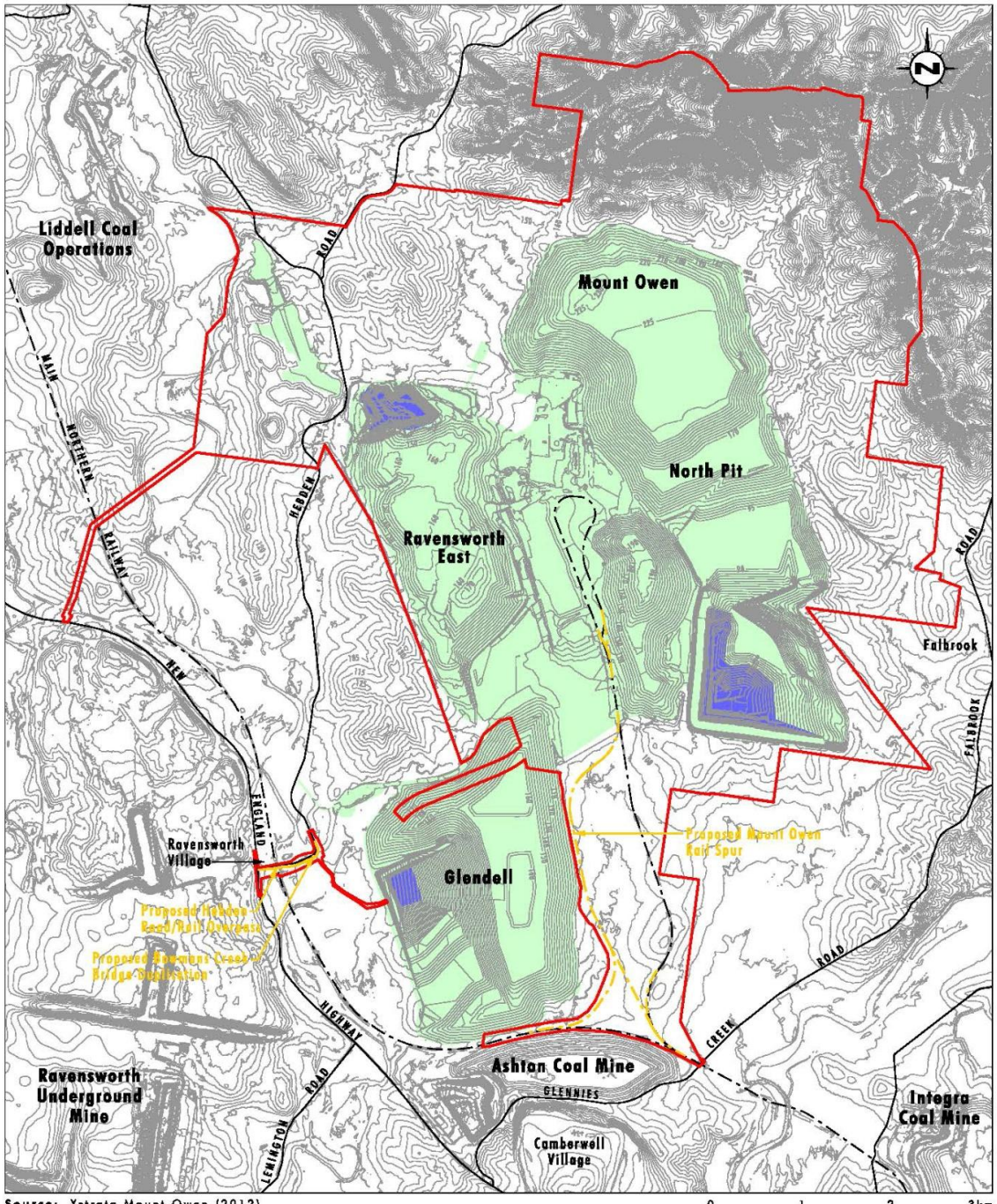
There are many components of the proposed Project that are located within areas of previously approved disturbance and infrastructure areas which will not result in additional surface impact. These Project components are outlined below.

1. Increase the CHPP production from 15 to 17 Mtpa ROM. It is proposed that tailings associated with the Project be emplaced in the Ravensworth East voids, as well as in-pit within the Mount Owen North Pit continuation and RERR mining areas;
2. increase to the Mount Owen CHPP processing and load–out from 15 Mtpa to 17 Mtpa ROM coal;
3. transport, via existing infrastructure up to 2 Mtpa ROM coal and crushed gravel on an as needs basis to the Liddell Colliery and the Ravensworth Coal Terminal (RCT) in addition to maintaining the current approval to transport ROM coal to Bayswater and Liddell power stations;
4. extend the existing product stockpile to the west and south within an area of previously approved disturbance; and
5. MIA upgrades including heavy vehicle workshop, fuel farm and fuel delivery area, expansion of the employee car park, raw water system and associated services and supporting infrastructure.

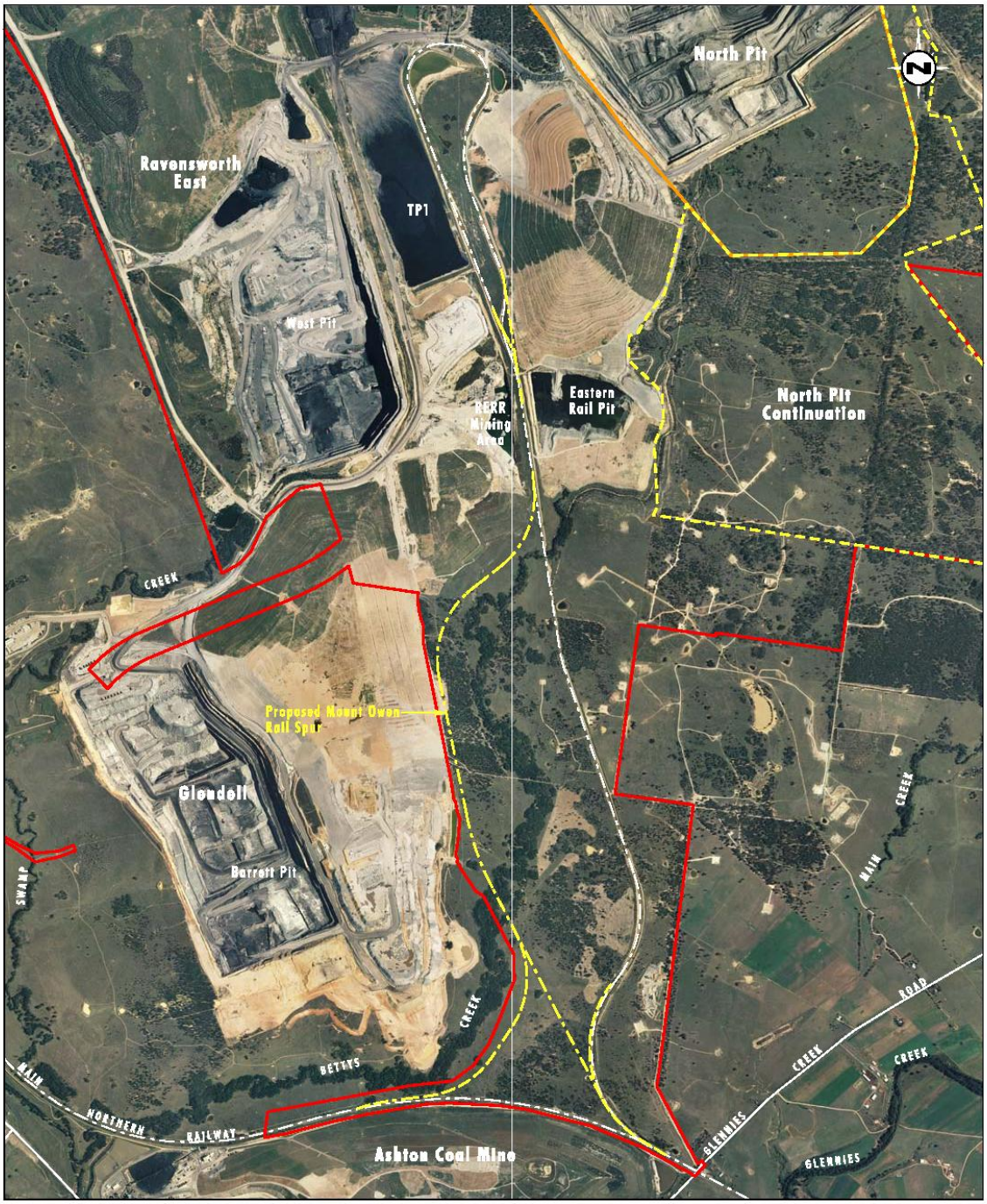
6.4.2 Areas disturbed in the Project

Further detail of the proposed Project that would result in additional disturbance of the area is provided below.

Map 6-1: Proposed Mount Owen Conceptual Mine Plan Final Landform.



Map 6-2: Proposed Rail Spur and Line Duplication.



Map 6-3: Bettys Creek

umwelt

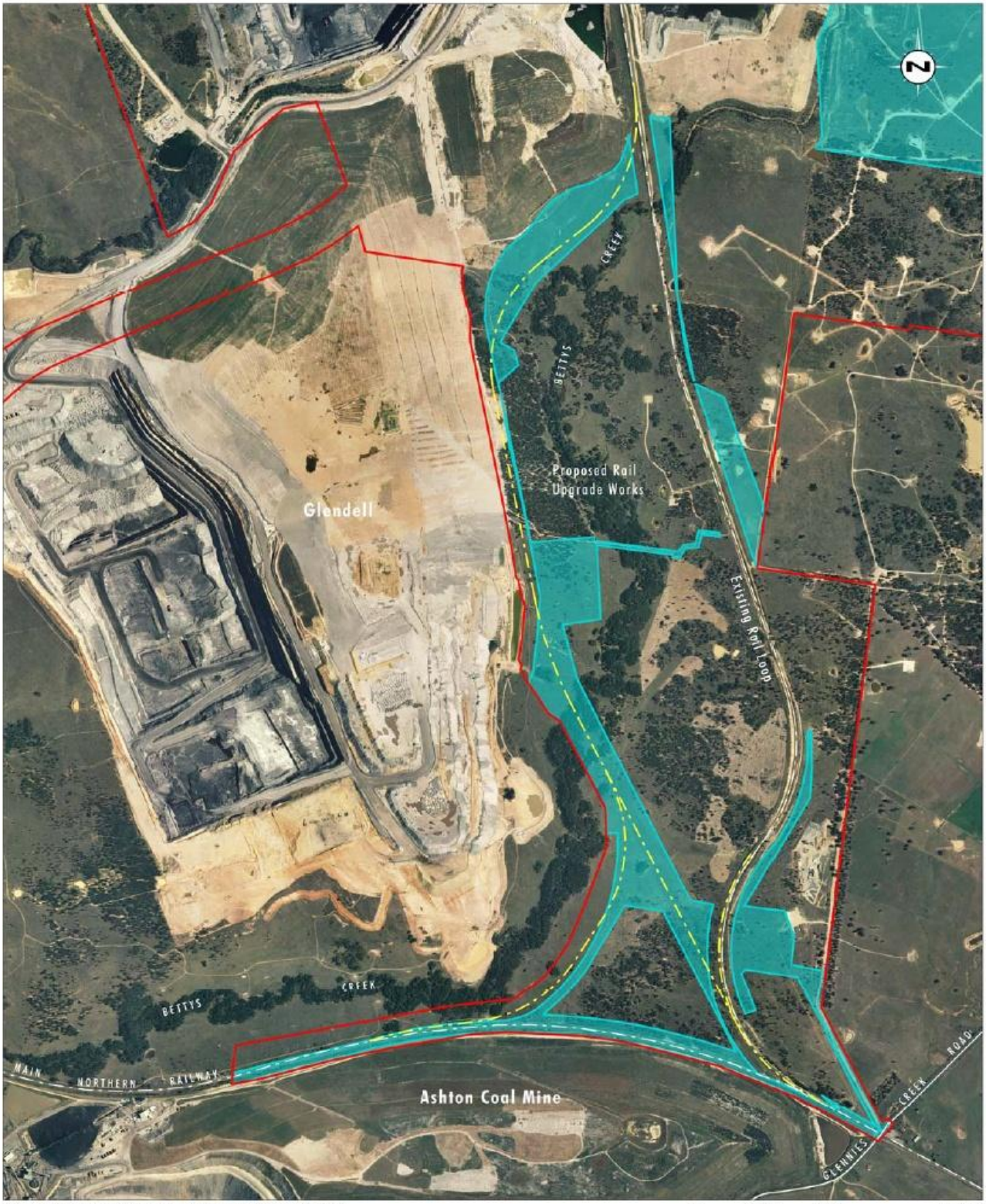


Image Source: Xstrata and Mount Owen (2012)
Data Source: Xstrata and Mount Owen (2012)

0 0.25 0.5 1.0km
1:20 000

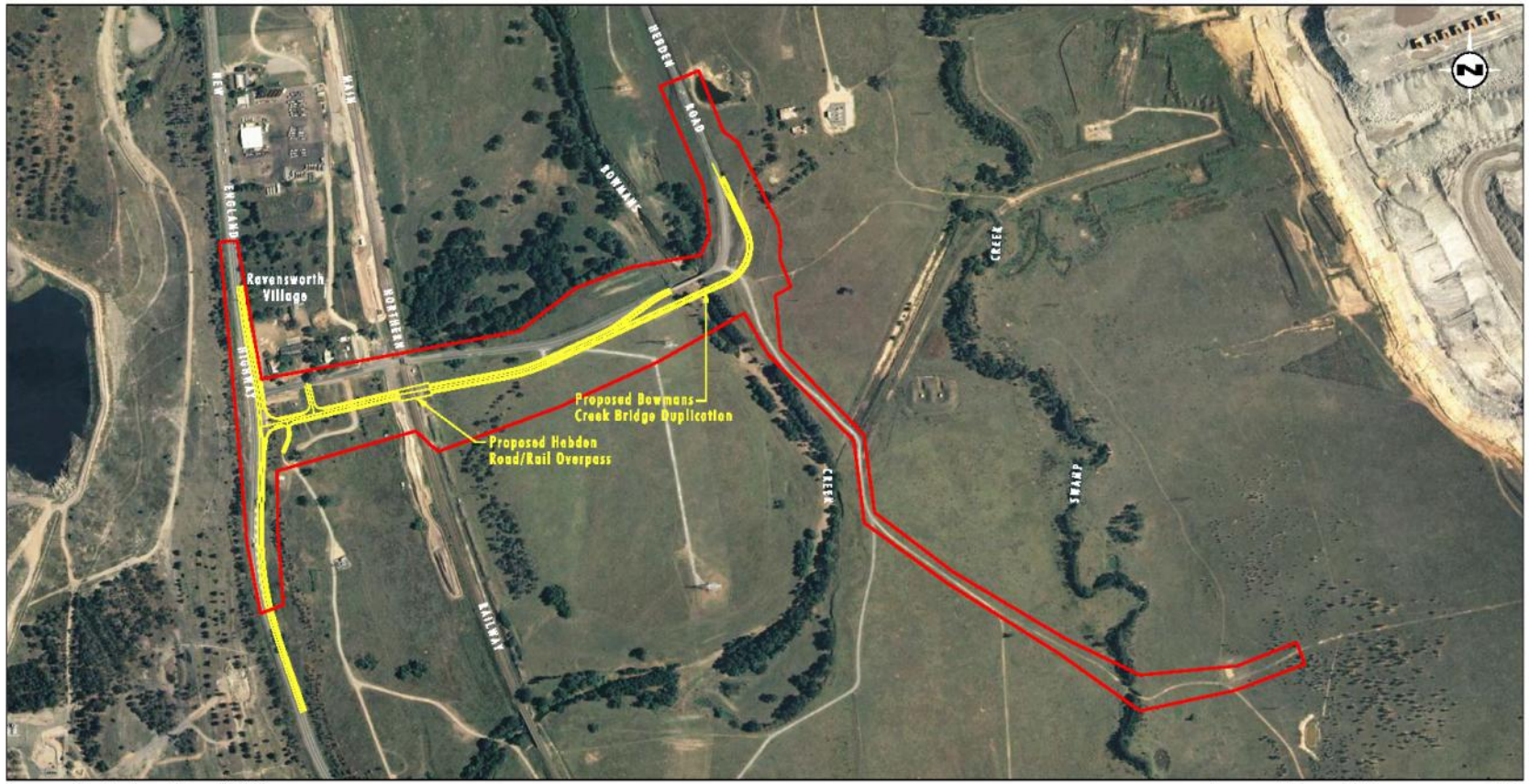
Legend

- Project Area
- Proposed North Pit Continuation
- Proposed Rail Upgrade Works
- Proposed Disturbance Area

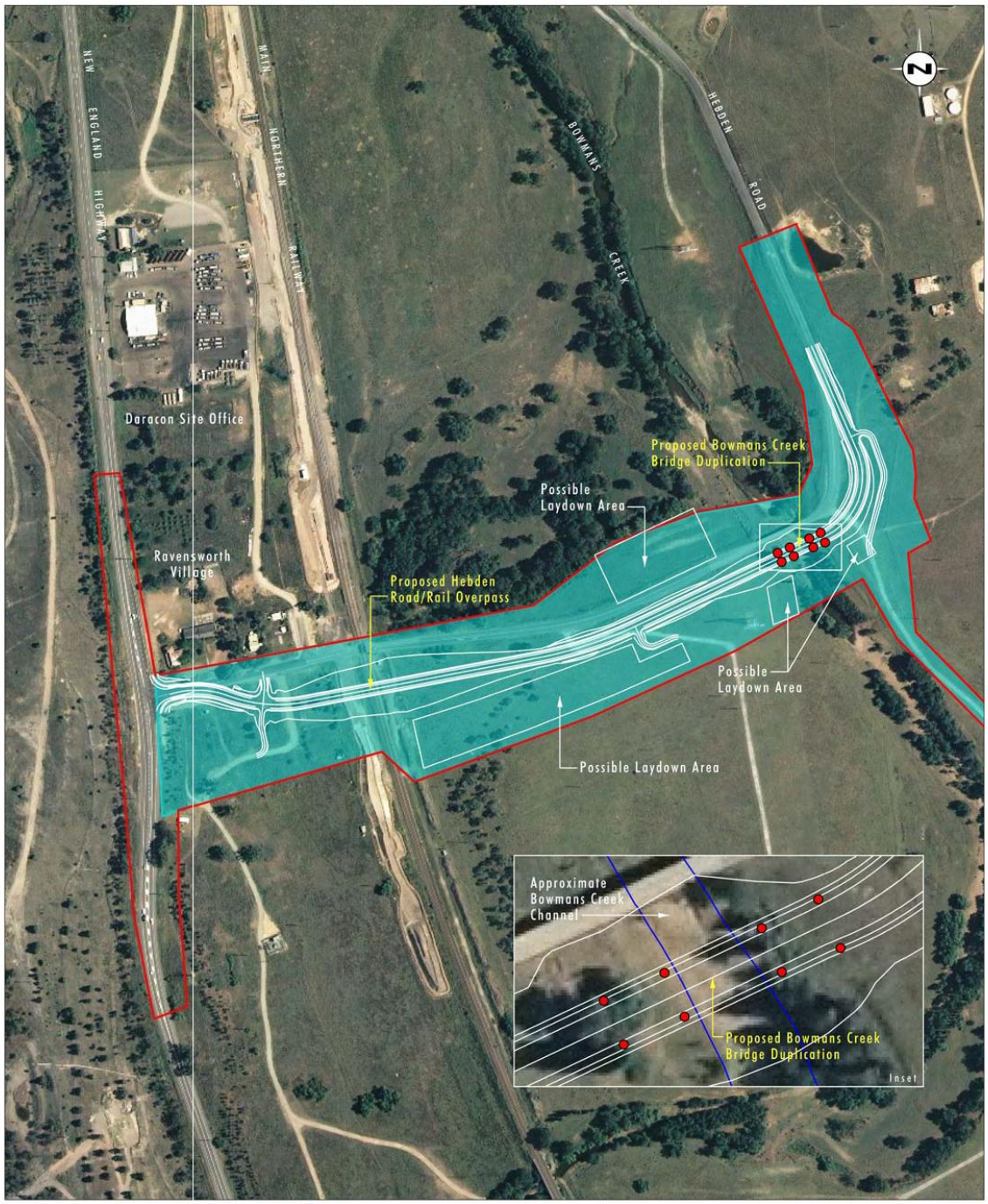
FIGURE 1

Bettys Creek

Map 6-4: Locations of proposed Hebden Road rail overpass and bridge over Bowmans Creek



Map 6-5: Bowmans Creek infrastructure upgrade.



6.4.3 Proposed Rail Spur and Line Duplication

Mount Owenwill continue to utilise the existing Mount Owen rail spur that currently services the Mount Owen Complex. In addition, Mount Owen is seeking approval for the provision of an additional rail line and northern turn-out west of the existing Mount Owen rail spur (See Map 6-2).

The construction of the additional rail line and northern turn-out will allow trains the ability to turn around within the Mount Owen balloon loop and return to Glencore owned mines to the west. At present empty X-rail trains travel to Port Waratah in Newcastle to turn around before heading back to the west. This northern turn-out will increase capacity along the Main Northern Rail Line by providing additional train paths between Mount Owen and the Port.

Moreover, the construction of the new rail line will reduce Mount Owen's ongoing maintenance liability associated with the existing rail spur, which is subject to ongoing subsidence due to the existing Integra underground mine. The new rail line would become the main connection between the Main Northern Rail Line and the Mount Owen balloon loop. The existing rail spur would be used as a park-up area for trains that are not in service.

The proposed rail spur will require the construction of a bridge spanning Bettys Creek which is designed with support structures on either side of the existing water course.

6.4.4 Proposed Rail Bridge spanning Bettys Creek

Bettys Creek was approved to be disturbed in the 2004 Mount Owen consent, and is now utilised as a clean water runoff channel from the southern rehabilitated dumps of the Mount Owen and Glendell mine dumps, as well as the water catchment area to the south of the Mount Owen North Pit. (See Map 6-2 and 6-3)

The maps show that the creek is largely unaffected by the laying of the proposed rail spur, other than by the bridge required to span Bettys Creek. This area has been subjected to extensive archaeological survey, excavation and salvage over the last 30 years.

The bridge will not affect the water flow in the creek during run off episodes, as it is designed as a span bridge.

6.4.5 Proposed Rail Overpass and Bowmans Creek Bridge

Hebden Road provides employee and service access to the Mount Owen Complex in addition to use by the public accessing properties and other industrial operations including the nearby Hebden and Wild Quarries. It is also an access road for the northern side of Lake Liddell and the Lake Liddell recreation area. Hebden Road connects with the New England Highway at two locations. These intersections are located north of Lake Liddell while the southern location is at Ravensworth.

The southern connection point (Ravensworth) receives the majority of movements for traffic accessing the Mount Owen Complex. The Main Northern Rail Line runs parallel to the New England Highway in this area, directly to the east. There is an existing rail level crossing where Hebden Road crosses this rail line. Approximately 400 metres to the east of the rail level crossing, a single lane bridge crossing over Bowmans Creek further constrains existing traffic movements with northbound traffic given right-of-way over the bridge. With anticipated future increases in train movements on the Main Northern Line, Mount Owen is looking to alleviate potential future constraints to traffic movement by constructing a rail overpass over the Main Northern Rail Line and new bridge over Bowmans Creek.

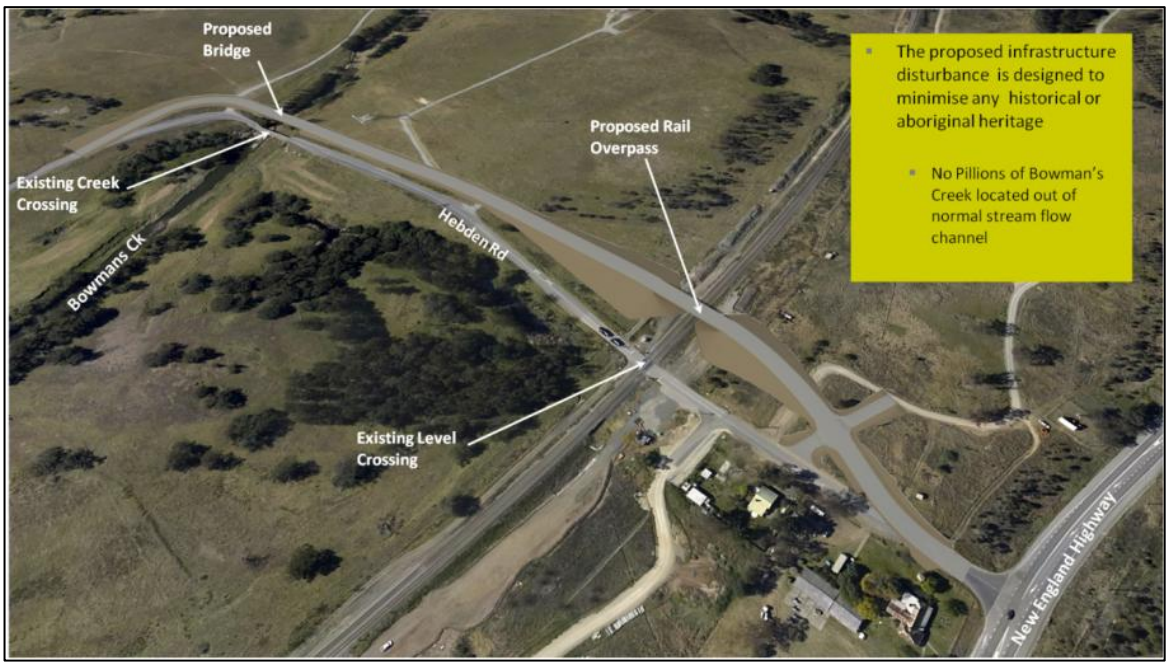
PROPOSED RAIL OVERPASS

Mount Owen proposes to construct a rail overpass for road traffic adjacent to the existing level crossing where Hebden Road crosses the Main Northern Rail Line (See Map 6-4 and 6-5). Due to the anticipated increase in future train movements on the Main Northern Rail Line, the purpose of the proposed rail overpass is to improve traffic flow and reduce traffic hazards by eliminating the potential for traffic to queue back onto the New England Highway.

PROPOSED BOWMANS CREEK BRIDGE DUPLICATION

Further to the east of the Main Northern Rail Line, Hebden Road crosses over Bowmans Creek via the single lane, Bowmans Creek Bridge. As part of the Project, Mount Owen proposes to construct a new bridge to allow for two-way traffic movements. The purpose of the new bridge is to provide further road traffic safety improvements. As shown on Figure 6-1, Map 6-4 and Map 6-5, the bridge at Bowman's Creek has been designed to remain outside of the normal stream flow area, and bridge pylons will be located on the banks outside the waterway.

Figure 6-1: Proposed works at Hebden Road consist of an overpass over the existing railway line and a new bridge over Bowman's Creek.



6.5 Proposed Construction Timeframes and Staging

It is anticipated that, should the Project be approved, construction activities would nominally be undertaken during 2016 and 2017.

The construction activities would be approximately 12 to 18 months duration and be completed by the end of 2017.

The construction tasks include:

- A northern rail line turn-out and new rail line;
- A Hebden Road overpass over Main Northern Rail Line;
- A New Hebden Road bridge crossing over Bowmans Creek;
- Upgrades to the product stockpile extension; and
- Existing MIA extensions and improvements.

Mount Owen currently operates the Mount Owen North Pit, and mining will continue in the exiting approved pit shell until 2016.

From 2017 to 2030, mining will extend into the southern mining area, with mine closure and final rehabilitation planned post 2030. It is expected final landform rehabilitation will take approximately 24 months.

6.6 Assessment of Wonnarua Cultural Values

The Wonnarua people consider that all Sites within their Traditional Homeland are of high importance and are in need of proper care and protection. It would be good for these areas to be monitored by the traditional owners on a six to twelve monthly site visit to assess the sites integrity, and to afford a measure of protection to these areas.

The land and water running through it are the lifeblood of our Culture. The Hills and Plains, the Forest and Mountains provided people in past generations with the resources needed to survive and live within our environment.

Camping and tool making sites found today remind the current Wonnarua people of our forefathers, the original inhabitants of the Hunter Valley.

The Wonnarua people wish to protect their History, Culture and Country wherever possible, and maintain a connection with the land by providing recommendations in regards to Wonnarua Koori Heritage in every part of our region.

The land and its stories were passed down from father to son over 200 generations before the arrival of Cook from England.

Therefore, according to Wonnarua Tribal Law, the local family group of Wonnarua people are obligated to care, maintain and protect this part of the Country.

As was done in the past, the Wonnarua people of today are still obligated to care for the environment as their Ancestors did, although they can no longer enforce Traditional Law for its protection. This would only allow Indigenous people with Kinship connection to speak for Country.

Wonnarua Aboriginal Cultural Assessments can look at many issues in the environment because local Wonnarua people are attached to the land through Physical, Spiritual and Visual connections to our land.

Important areas include any combination of certain Wonnarua Cultural Places, such as Bora Grounds, Spiritual Teaching Areas, Stone Arrangements, Traditionally visited Camping Areas, Dreamtime Sites and Song Lines as well as Scarred Trees for Ceremonial and War Shields. Cultural Assessments includes consideration of all these things.

6.7 Identification of Potential Harm

There is very little impact to local Wonnarua heritage inside of this particular project, but we are being asked to give an evaluation of the harm to the known sites.

The major site area would in my estimation be the area found along the MOCO test excavation area (2) mainly because it is the likely area were stone tools would be found, because of the possible camping and hunting grounds in the vicinity, and its closeness to water for drinking in good seasons.

The other area inside of MOCO test excavation area (1) is of little importance, as this area was devoid of any camping sites or stone tool making evidence before the drainage line was built back in the early 1990s this is personal knowledge as I was involved in the walk over survey of the drainage line before it was given clearance to construct the line, Umwelt archaeologist were involved in the survey I think , given that both areas will be harmed if the development is impacted then the order of importance would be MOCO test excavation area (2) then area (1). The scarred tree is not recognized by our people as being a real tree that has been modified by Wonnarua people in past pre- colonial or post-colonial history.

The act of " harm" is clear when you remove the artefacts from the environment that they sit in, this is one level of Harm for the Artefacts, the real harm is when you remove the total landscape from the environment.

7. Avoiding and Minimising Harm

Our group discussed the issue surrounding care and control of the material culture that will be salvaged by excavations and test pitting from inside the project area.

Our stakeholders had mixed views when it comes to the direction we should go, regarding the archaeology and site protection of our historic sites.

On the one hand, we need to protect our sites and on the other hand, we need practical solutions to mitigation strategies on the likelihood that the mine extension will proceed.

We understand that we do not have any veto powers to stop this extension if the Government agrees to proceed. The group consensus was that the two main areas inside the study area have no high value other than what has already been generally discussed in the preceding points above.

If we lose these sites they will be another area of land with our sites that will disappear and will add to the collective loss of over 3500 Wonnarua sites already destroyed by coal mining activities. The overall situation has not changed for us with the continued loss of heritage.

Some of our stakeholders would still like to be engaged in any cultural heritage salvage if there is a need for such things to continue.

We would recommend that we would like to produce a landscape DVD of the area for our historical records as to what our country looked like before it is destroyed by mining forever.

Any cultural material, if dug up, should be returned to the country where it came from so that the sites are back in the country that they belong to. Our people would like to be involved, in the return of the material removed from sites, when the mine has completed its coal extraction.

All the material should be kept in the Australian Museum, Sydney until the agreed time for the return of the cultural material back to country. This strategy should be embedded in the planning process for this mine as a means to protect Wonnarua Cultural Heritage.

8. Recommendations

8.1 Recommendation Summary

Topic	Recommendation
Recovery of Artefacts	• If mined, any cultural material, if dug up, should be returned to the country where it came from so that the sites are back in the country that they belong to. Our people would like to be involved, in the return of the material removed from sites, when the mine has completed its coal extraction. All the material should be kept in the Australian Museum, Sydney until the agreed time for the return of the cultural material back to country. This strategy should be embedded in the planning process for this mine as a means to protect Wonnarua Cultural Heritage. • If not mined, area of erosion in Test Area 2 should be rehabilitated in accordance with the principles of caring for country. • There should also be repatriation of our wooden material sitting in the universities, museums and collections around the country and overseas. • Alternatively, Artefacts recovered from any sites should be used as teaching tools for conducting workshops in spear making and tool making classes for our younger people. A stone tool making class, incorporating the identification and use of these tools should be put together for our youth.
Keeping Place	• The building of a Wonnarua reclamation centre to house all of our lost cultural knowledge and physical material such as boomerangs, shields, spears and the like.
Landscape DVD	• We would like to produce a landscape DVD of the area for our historical records as to what the country looked like before it is destroyed by mining forever
Teaching Place/Programs	• A Wonnarua teaching place and teaching program could be used to teach our own history to the next generation of Wonnarua People • Support for Wonnarua cultural camps where our people can learn how to make possum skin cloaks the traditional way as well as other cultural practices that our tribal ancestors used such as tool making.
Land Management/Rehabilitation	• Wonnarua people could be trained to be involved in all of the environmental aspects of land management, incorporating not only rehabilitation, but air, dust, and water management and monitoring. • Wonnarua Mine Rehabilitation is a company fully owned by the WNAC that is now set up for this purpose.
St Clair	• Support for the implementation of any stage of the Cultural Park Plan at St Clair that remains unfunded at the commencement of mining activity.
Cultural Mapping Project	• Support for a cultural mapping project to record all of our important places within the Wonnarua homeland, to include any untold stories or information that have not already been written about.

8.2 Mitigation of Direct Impacts

8.3 Recommendations to ensure Intergenerational Equity

Topic	Recommendation
Recovery of Artefacts	• There should also be repatriation of our wooden material sitting in the universities, museums and collections around the country and overseas. • Alternatively, Artefacts recovered from any sites should be used as teaching tools for conducting workshops in spear making and tool making classes for our younger people. A stone tool making class, incorporating the identification and use of these tools should be put together for our youth.
Keeping Place	• The building of a Wonnarua reclamation centre to house all of our lost cultural knowledge and physical material such as boomerangs, shields, spears and the like.
Teaching Place/Programs	• A Wonnarua teaching place and teaching program could be used to teach our own history to the next generation of Wonnarua People • Support for Wonnarua cultural camps where our people can learn how to make possum skin cloaks the traditional way as well as other cultural practices that our tribal ancestors used such as tool making.
St Clair	• Support for the implementation of any stage of the Cultural Park Plan at St Clair that remains unfunded at the commencement of mining activity.
Cultural Mapping Project	• Support for a cultural mapping project to record all of our important places within the Wonnarua homeland, to include any untold stories or information that have not already been written about.
Landscape DVD	• We would like to produce a landscape DVD of the area for our historical records as to what the country looked like before it is destroyed by mining forever.
Land Management/Rehabilitation	• Wonnarua people could be trained to be involved in all of the environmental aspects of land management, incorporating not only rehabilitation, but air, dust, and water management and monitoring. Wonnarua Mine Rehabilitation is a company fully owned by the WNAC that is now set up for this purpose.

As this is the second project that we have been involved in which deals with the intergenerational equity idea (the first one being the BOP project in 2012), our people have a better understanding of what this term means.

Initial discussions were based on what this means for us in regards to this project and how we interact with this area. It was agreed that our people should have the opportunity to be more involved in the rehabilitation of the land as the project proceeds.

Another member of our group asked what will happen to the cultural material after it is dug up. There should be provision for our kids to see them in the future.

There is a great need for our future young people to know and understand what our cultural material is, or stone tools and artefacts, perhaps. A stone tool making class, incorporating the identification and use of these tools should be put together for our youth.

Another suggestion was that we should be trained up to be involved in all of the environmental aspects of land management, incorporating not only rehabilitation, but air, dust, and water management and monitoring.

The Wonnarua Nation Aboriginal Corporation has a cultural plan in place for the St Clair Mission and perhaps the mining company could support the development of some of the programs that the Wonnarua Nation is establishing on behalf of our people.

Other ideas put forward were:

- Support for a cultural mapping project to record all of our important places within the Wonnarua homeland, to include any untold stories or information that have not already been written about.
- Support for Wonnarua cultural camps where our people can learn how to make possum skin cloaks the traditional way as well as other cultural practices that our tribal ancestors used such as spear making.
- Repatriation of our wooden material sitting in the universities, museums and collection around the country and overseas, and
- the building of a Wonnarua reclamation centre to house all of our lost cultural knowledge and physical material such as boomerangs, shields , spears and the like.

Some of these things have been discussed in the past but again our requests have not been heard or acted upon.

The very last point discussed was the oral history for the second workshop. It was explained to all that this was a part of the overall process to gain detailed and relevant information for the Mount Owen project, and cultural knowledge regarding the surrounding country and the sites within it.

It was stated again that anyone with cultural knowledge who wished to contribute any information about the area within the Mt Owen Mine landscape or nearby countryside should either contact Tracey Skene or Victor Perry after the meeting to discuss any information that they wish to talk about. It was also stated that anyone who did would have their information kept, in the strictest confidentiality, through the consultation process.

It was pointed out that some people could not stay on country through no fault of their own and that their stories were also very relevant to the whole history of the Wonnarua people in general. While some of these stories may no longer contain specific detail about the Project Area, they are still entitled to be heard, because, through dispossession, they have been denied the opportunity to gain that knowledge, through no fault of their own.

Topic	Recommendation
Artefacts from the site	• If mined, any cultural material, if dug up, should be returned to the country where it came from so that the sites are back in the country that they belong to. Our people would like to be involved, in the return of the material removed from sites, when the mine has completed its coal extraction. All the material should be kept in the Australian Museum, Sydney until the agreed time for the return of the cultural material back to country. This strategy should be embedded in the planning process for this mine as a means to protect Wonnarua Cultural Heritage. • If not mined, area of erosion in Test Area 2 should be rehabilitated in accordance with the principles of caring for country.

8.1 Recommendations for Care & Control

Our group discussed the issue surrounding care and control of the material culture that will be salvaged by excavations and test pitting from inside the project area.

Our stakeholders had mixed views when it comes to the direction we should go, regarding the archaeology and site protection of our historic sites.

On the one hand, we need to protect our sites and on the other hand, we need practical solutions to mitigation strategies on the likelihood that the mine extension will proceed.

We understand that we do not have any veto powers to stop this extension if the Government agrees to proceed. The group consensus was that the two main areas inside the study area have no high value other than what has already been generally discussed in the preceding points above.

If we lose these sites they will be another area of land with our sites that will disappear and will add to the collective loss of over 3500 Wonnarua sites already destroyed by coal mining activities. The overall situation has not changed for us with the continued loss of heritage.

Some of our stakeholders would still like to be engaged in any cultural heritage salvage if there is a need for such things to continue.

We would recommend that we would like to produce a landscape DVD of the area for our historical records as to what our country looked like before it is destroyed by mining forever.

Any cultural material, if dug up, should be returned to the country where it came from so that the sites are back in the country that they belong to. Our people would like to be involved, in the return of the material removed from sites, when the mine has completed its coal extraction.

All the material should be kept in the Australian Museum, Sydney until the agreed time for the return of the cultural material back to country. This strategy should be embedded in the planning process for this mine as a means to protect Wonnarua Cultural Heritage.

9. Glossary

Absolute Dating: Is the process of determining a specific date for an archaeological or paleontological site or artefact. Some archaeologists prefer the terms chronometric or calendar dating, as use of the word 'absolute' implies a certainty and precision that is rarely possible in archaeology. See also relative dating.

Adze: A stone tool made on flakes with steep flaking along the lateral margins and hafted for use as a wood working tool.

Alluvial Terrace: A terraced embankment of loose material adjacent to the sides of a river valley.

Amorphous: Showing no definite crystalline structure.

Angle Of Applied Force: The angle at which the force of flaking is applied to a core.

Angular fragment: A piece of stone that is blocky or angular.

Anisotropic: Having some physical properties which vary in different directions.

Anvil: A portable stone, used as a base for working stone tools. Anvils most frequently have a small circular depression in the centre which is the impact damage from where cores were held while being struck by a hammer stone. An anvil may be a multi-functional tool also used as a grindstone and hammer stone.

Archaeological Context: The situation or circumstances in which a particular item or group of items is found.

Archaeological site types: The archaeological site types encountered in Australia can be divided into three main groups:

Historical archaeological site: An archaeological site formed since the European settlement containing physical evidence of past human activity (for example a structure, landscape or artefact scatter).

Aboriginal contact site: A site with a historical context such as an Aboriginal mission station or provisioning point, or a site that shows evidence of Aboriginal use of non-traditional Aboriginal materials and technologies (e.g. metal or ceramic artefacts).

Aboriginal prehistoric archaeological site: A site that contains physical evidence of past Aboriginal activity, formed or used by Aboriginal people before European settlement.

These sites may be:

Artefact scatters	Scarred Trees
Isolated artefacts	Mounds
Rock shelters	Rock art
Burial Structures	Hearths
Shell middens	Quarries
Ethnographic Items	Grinding Patches

Archaeology: The study of the past through the systematic recovery and analysis of material culture. Archaeology relies heavily upon science and cognate disciplines to provide interpretations of the past life ways of the peoples under investigation.

Artefact: any movable object that has been utilised modified or manufactured by humans.

Artefact scatter: A surface scatter of cultural material. Aboriginal artefact scatters are often defined as being the occurrence of five or more items of cultural material within an area of about 10m x 10m.

Australian Height Datum: The datum used to determine elevations in Australia. The AHD is based on the mean coastal sea level being zero metres AHD.

Australian Small Tool Tradition: Stone tool assemblages found across Australia, with the exception of Tasmania, dating between 8000 BP to European contact. The tool types include hafted implements (e.g. Bondi points), bifacial and unifacial points, geometric microliths, and blades. The assemblage is named for its distinct lack of larger 'core tools' which characterised earlier assemblages.

Axe: A stone-headed axe or hatchet or the stone head alone, characteristically containing two ground surfaces which meet at a bevel.

Backed Artefact: Backed artefacts are flakes retouched until they have one or more steep and relatively thick surfaces that are covered with negative scars. Since the backing retouch was accomplished with a bipolar and/or anvil-rested knapping technique, these retouched surfaces typically show negative scars originating from two directions, a pattern that is sometimes described as 'double backing'. Backed pieces are a feature of the 'Australian small tool tradition', dating from about 8000 BP in southern Australia.

Bearing: An angle measured clockwise from a north line of 0° to a given surveyed line.

Bevelled Edge: An edge which has had its angle altered.

Biface: A flaked stone artefact which has flake scars on both ventral and dorsal surfaces.

Bipolar: Technique of knapping where a core is rested on an anvil and force applied to the core at an angle close to 900 in the direction of the core's contact with the anvil.

Blade: A flake at least twice as long as it is wide.

Blaze: A mark carved in a tree trunk at about breast height. This type of mark was traditionally used by explorers or surveyors to indicate a route of passage in a certain direction, or a particular camp location.

Bulb of Percussion: Is a convex protuberance located at the proximal end of the ventral surface of a flake, immediately below the ring crack.

Bulbar Scar: The negative scar on a core that results from the bulb of percussion on the extracted flake.

Burial site: Usually a sub-surface pit containing human remains and sometimes associated artefacts. Human burials can also occur above the ground surface within rock shelters or on tree platform burials.

Burin: A stone implement roughly rectangular in shape with a corner flaked to act as a point for piercing holes.

Cadastral: From the Latin, a cadastre is a comprehensive register of the real property of a country, and commonly includes details of the ownership, the tenure, the precise location (some can include GPS coordinates), the dimensions (and area), the cultivations if rural and the value of individual parcels of land.

Chert: Is a fine-grained silica-rich microcrystalline, cryptocrystalline or microfibrous sedimentary rock that may contain small fossils. It varies greatly in colour (from white to black), but most often manifests as gray, brown, greyish brown and light green to rusty red. Its colour is an expression of trace elements present in the rock, and both red and green are most often related to traces of iron (in its oxidized and reduced forms respectively).

Cleavage Plane: A plane of weakness or preferred fracture in a rock.

Composite: An artefact made up of two or more parts joined together.

Conchoidal Fracture: describes the way that brittle materials break when they do not follow any natural planes of separation. Materials that break in this way include flint and other fine-grained minerals, as well as most amorphous solids, such as obsidian and other types of glass. Conchoidal fractures often result in a curved breakage surface that resembles the rippling, gradual curves of a mussel shell; the word 'conchoid' is derived from the word for this animal. A swelling appears at the point of impact called the bulb of percussion. Shock waves emanating outwards from this point leave their mark on the stone as ripples. Other conchoidal features include small fissures emanating from the bulb of percussion.

Conjoin: A physical link between artefacts broken in antiquity. A conjoin set refers to a number of artefacts which can be been refitted together.

Contours: Lines joining points of equal height on a topographic map. Contour lines that are relatively close together depict an area of steep terrain on the earth's surface; whereas lines depicted a distance apart represent flat areas on the earth's surface.

Core: An artefact from which flakes have been detached using a hammer stone. Core types include single platform, multi-platform, and bipolar forms.

Cortex: Weathered outer surface of rock, usually chemically altered.

Crazing: Production of visible surface cracks by uncontrolled heating of rock.

Crown land: Technically belonging to the reigning sovereign, is a class of public land, provided for the enjoyment and benefit of the people.

Crushing: Abrasion, small fracturing and the formation of ring cracks, usually along an artefacts edge.

Cryptocrystalline: Rock in which the crystal structure is too fine for clear resolution with an optical microscope.

Cultural significance: Cultural significance means aesthetic, historic, scientific, social or spiritual value for past, present or future generations (Australia ICOMOS Burra Charter Article 1.2).

Cultural Materials: The products of human behaviour, such as stone artefacts or food debris.

Datum: In surveying and geodesy, a datum is a reference point or surface against which position measurements are made, and an associated model of the shape of the earth for computing positions. Horizontal datum's are used for describing a point on the earth's surface, in latitude and longitude or another coordinate system. Vertical datum's are used to measure elevations or underwater depths. The previous datum used in Australia was known as the Australian Geodetic Datum (AGD). However, this was restricted because it was defined to best fit the shape of the earth in the Australian region only. The change in datum's had a major consequence to all coordinates. Both latitudes/longitudes and eastings/northings were shifted by approximately 200 metres in a north-easterly direction.

Debitage: The term debitage refers to the totality of waste material produced during lithic reduction and the production of chipped stone tools. This assemblage includes, but is not limited to, different kinds of lithic flakes, shatter, and production errors and rejects.

Decortication: Removal of cortex from a stone artefact.

Dendrochronology: Is the method of scientific dating based on the analysis of tree-ring growth patterns.

Denticulated: Describes a stone tool which has one edge worked into a series of notches giving a toothed or serrated cutting edge.

Discard: The movement of an object from its systemic context to an archaeological context.

Distal: The end of a flake opposite the bulb; the area of a flake containing its termination.

Direct Freehand Knapping: A method of holding the material to be flaked in the unsupported hand and directing the hammer stone with the other hand.

Dorsal Surface: The face of a flake which was the core surface prior to flake removal and may therefore retain negative flake scars or cortex.

Edge ground implement: A tool, such as an axe or adze which has been flaked to a rough shape and then ground against another stone to produce a sharp edge.

Edge modification: Irregular small flake scarring along one or more margins of a flake, flaked piece or core, which is the result of utilisation/retouch or natural edge damage. Edge damage refers to the removal of small flakes from the edge of an artefact.

Elevation: The height above mean sea level.

Eraillure Flake: A flake formed between the bulb of force and the bulbar scar. Sometimes the eraillure flake adheres to the core in the bulbar scar. The eraillure flake leaves no scar on the core, but always leaves a scar on the ventral surface of the flake. The eraillure flake is convex / concave (like a meniscus lens), has no distinct features on the 'dorsal face', but may contain compression rings on the bulbar face.

Ethno-archaeology: The study of human behaviour and of the material culture of living societies in order to learn how items enter the archaeological record, thus allowing the formation of hypotheses as to how items of material culture entered the archaeological record in pre-history.

Ethnographic Site: Often overlooked in cultural heritage management, an ethnographic site is one which has particular spiritual or ritual significance to a particular group of people. They are more commonly referred to as 'dreaming sites' in Australia, and most appropriately recorded by someone with anthropological qualifications.

Excavation: The systematic recovery of archaeological data through the exposure of buried sites and artefacts. Excavation is a destructive process, and hence it is accompanied by comprehensive recording of every aspect.

Excavation Report: Once an excavation has finished, a report outlining the reasons, aims, methods used and findings from the excavation as well as some conclusions drawn from interpreting the artefacts.

Faceted Platform: A platform which is created by the removal of a number of flake scars.

Feather Termination: A termination of the fracture plane that occurs gradually (i.e. there are no sharp bends in the plane), producing a thin, low angled distal margin.

Feature: In excavations, a feature is something that a human made in the past that has not been or cannot be moved. Examples of this would be a house floor or a hearth (fire pit). When archaeologists are excavating, they often come across features.

Flake: A piece of stone removed from a core during the process of knapping by the application of external force, which characteristically shows traces of the processes of removal: concentric fracture ripples and a bulb of percussion. Flakes with a length: breadth ratio of 2:1 or more are usually referred to as blades. In some cases flakes are the result of shaping a block of stone into a tool of some kind. When removed from a prepared core, however, they were usually used as blanks for making tools. Primary flakes (also called decortication flakes) are large, thick flakes struck off a core when removing the cortex and preparing it for working. Secondary flakes (also called reduction flakes) are large flakes struck off a piece to reduce its size or thickness. Tertiary flakes are small flakes struck off when shaping the detail of a piece to make a specific tool. Retouching flakes are tiny, extremely thin flakes pinched or pushed off a piece to finish it, to fine-shape part of the surface, sharpen it, or resharpen it. Notching flakes are produced when putting hafting notches in stone tools.

Force: The quantity of energy exerted by a moving body; power exerted; energy exerted to move another body from a state of inertia.

Formal tool: an artefact that has been shaped by flaking, including retouch, or grinding to a predetermined form for use as a tool. Formal tools include scrapers, backed pieces, adzes and axes.

Fracture: Irregular surface produced by breaking a mineral across rather than along cleavage planes.

GDA94: Geocentric Datum of Australia. A spatial reference system which is universally implemented across Australia. The Geocentric Datum of Australia (GDA) is a coordinate reference system that best fits the shape of the earth as a whole. It has an origin that coincides with the centre of mass of the earth, hence the term 'geocentric'

Geodesy: The science and mathematical calculations of the shape and size of the Earth.

Geographic coordinates: a geographic coordinate system enables every location on the earth to be specified, using mainly a spherical coordinate system. There are three coordinates: latitude, longitude and geodesic height.

Geographic Information Systems: Is any system for capturing, storing, analysing, managing and presenting data and associated attributes which are spatially referenced to Earth. GIS is a system or tool or computer based methodology to collect, store, manipulate, retrieve and analyse spatially (georeferenced) data.

Geometric microlith: A small tool that has been fashioned from breaking apart a microblade. The piece is then retouched or backed and a small tool formed.

Gilgai soils: Soils with an undulating surface, presenting as a pattern of mounds and depressions. Gilgai soils contain swelling clays, which shrink and swell with alternate drying and wetting cycles. They display strong cracks when dry. Elements of the soil circulate and move during the shrink-swell process.

Global Positioning System: GPS is a satellite based navigation system originally developed by the United State's Department of Defence. A GPS receiver calculates a position by measuring distances to four or more satellites of a possible 24. These orbit the Earth at all times.

Grain: A description of the size of particles or crystals in rocks or sand. Coarse grained rocks have particles or crystals which are large (1mm or more), and fine grained rocks have particles which are small (0.1mm or less).

Greywacke: Hard fine-grained rock of variable composition containing some quartz and feldspar but mostly very fine particles of rock fragments.

Graticule: A network of crossing lines on a map representing parallels of latitude and meridians of longitude as defined by the Projection.

Grid: The division of an archaeological site into small squares that denote different areas of excavation, making it easier to measure and document the site.

Grid coordinates: A point on a map given as an easting and northing reading. The values are given in metres.

Grindstone: The abrasive stone used to abrade another artefact or to processes food. Upper and lower grind stones used to grind plants for food and medicine and/or ochre for painting. A hammer stone sometimes doubles as a hammer stone and/or anvil.

Hammer stone: a piece of stone, often a creek/river pebble/cobble, which has been used to detach flakes from a core by percussion. During flaking, the edges of the hammer stone become 'bruised' or crushed by impact with the core. Hammer stones may also be used in the manufacture of petroglyphs.

Hand-Held: Description of the method used to immobilize the rock during knapping, it which it is held in one hand and struck by a hammer stone held in the other hand.

Hardness: Resistance of material to permanent deformation.

Hearth: Usually a sub-surface feature found eroding from a river or creek bank or a sand dune – it indicates a place where Aboriginal people cooked food. The remains of hearth are usually identifiable by the presence of charcoal and sometimes clay balls (like brick fragments) and hearth stones. Remains of burnt bone or shell are sometimes preserved with a hearth.

Heat treatment: The thermal alteration of stone (including silcrete) by stone workers to improve its flaking qualities.

Heritage: The word 'heritage' is commonly used to refer to our cultural inheritance from the past that is the evidence of human activity from Aboriginal peoples through successive periods of later migration, up to the present day. Heritage can be used to cover natural environment as well, for example the Natural Heritage Charter. Cultural heritage can be defined as those things and places associated with human activity. The definition is very broad, and includes Indigenous and historic values, places and objects, and associated values, traditions, knowledge and cultures.

Heritage Place: A place that has aesthetic, historic, scientific or social values for past, present or future generations – 'this definition encompasses all cultural places with any potential present or future value as defined above'. Heritage place can be subdivided into Aboriginal place and historical place, for the purposes of this document.

Hinge Termination: A fracture plane that turns sharply toward the free surface of the core immediately prior to the termination of the fracture. The bend of the ventral surface is rounded and should not be confused with a step termination.

Historic place: A place that has some significance or noted association in history.

Homogeneous: Uniform structure and property throughout the material.

Hunter-gatherer: A member of a society who gains their subsistence in the wild on food obtained by hunting and foraging.

Hydrology: Is the study of the movement, distribution, and quality of water throughout the Earth.

ICOMOS (International Council on Monuments and Sites): ICOMOS is a nongovernment professional organisation closely linked to UNESCO, with national committees in some 100 countries with the headquarters in France. ICOMOS promotes expertise in the conservation of cultural heritage. It was formed in 1965, and has a responsibility to advise UNESCO in the assessment of sites proposed for the World Heritage List. Australia ICOMOS was formed in 1976. Its fifteen member executive committee is responsible for carrying out national programmes and participating in decisions of ICOMOS.

Incipient Crack: A crack or line of weakness in the rock.

Inclusion: An impurity or foreign body in the stone that reduces the homogeneity of the rock.

Indirect Percussion: Punch technique.

Interpretation: The process of explaining the meaning or use of an artefact.

Inward Force: Force applied to the platform, and directed into the body of the core.

Isolated artefact: The occurrence of less than five items of cultural material within an area of about 100 sq. metres. It/they can be evidence of a short-lived (or one-off) activity location, the result of an artefact being lost or discarded during travel, or evidence of an artefact scatter that is otherwise obscured by poor ground visibility.

Knapper: A person who creates stone artefacts by striking rocks and causing them to fracture.

Knapping Floor: The debris left on one spot and resulting from the reduction of one block of raw material. A knapping location is a site comprised of one or more knapping floors.

Koori: Koori is an Aboriginal term used to describe Indigenous people from Victoria and southern New South Wales.

Lateral Margins: The margins of a flake either side of the percussion axis.

Latitude: The angular distance along a meridian measured from the Equator, either north or south.

Layer: The layer is the level in which archaeologists dig. All excavation sites have different numbers of layers. Archaeologists try to work out when they are moving to a new layer by cultural or man-made clues like floors, but sometimes they will go by changes in soil colour or soil type.

Longitude: The angular distance measured from a reference meridian, Greenwich, either east or west.

Longitudinal Cross Section: The cross-section of a flake along its percussion axis.

Magnetic north: The direction from a point on the earth's surface to the north magnetic pole. The difference between magnetic north and true north is referred to as magnetic declination.

Maintenance: The process of keeping an artefact in a particular state or condition. An edge which is being used is maintained by flaking off blunted portions. A core is maintained by keeping its characteristics within the limits required for certain types of flaking.

Manufacture: The process of making an artefact.

Manuport: Foreign fragment, chunk or lump of stone that shows no clear sings of flaking but is out of geological context and must have been transported to the site by people.

Map scale: The relationship between a distance on a map and the corresponding distance on the earth's surface.

Margin: Edge between the ventral and dorsal surfaces of a flake.

Material culture: A term that refers to the physical objects created by a culture. This could include the buildings, tools and other artefacts created by the members of a society.

Mercator Projection: A conformal cylindrical Projection tangential to the Equator. Rhumb lines on this Projection are represented as straight lines.

Meridian: A straight line connecting the North and South Poles and traversing points of equal longitude.

MGA94: The Universal Transverse Mercator coordinates of eastings, northings, and zones generated from GDA94 are called Map Grid of Australia 1994 coordinates.

Microblade: A very small narrow blade.

Microcrystalline: Rocks in which the crystals are very small but visible in an optical microscope.

Microwear: Microscopic use-wear.

Moiety: A moiety is a half. Tribes were composed of two moieties (halves) and each clan belonged to one of the moieties.

Mound: These sites, often appearing as raised areas of darker soil, are found most commonly in the volcanic plains of western Victoria or on higher ground near bodies of water. The majority were probably formed by a slow buildup of debris resulting from earth-oven cooking: although some may have been formed by the collapse of sod or turf structures. It has also been suggested some were deliberately constructed as hut foundations.

Morphology: The topographical characteristics of the exterior of an artefact.

Mosaic: A number of continuous aerial photographs overlapped and joined together by way of 'best fit' to form a single non-rectified image.

Negative Bulb of Force: The concave surface left after a flake has been removed. See Bulbar Scar.

Notched: Serration or series of alternating noses and concavities.

Obtrusiveness: How visible a site is within a particular landscape. Some site types are more conspicuous than others. A surface stone artefact scatter is generally not obtrusive, but a scarred tree will be.

Overhang: The lip on a core or retouched flake, caused by the platform being undercut by the bulb on the flake removed.

Overhang Removal: The act of brushing or tapping the platform edge in order to remove the overhang in a series of small flakes.

Overlays: The Victorian Planning Provisions establish a number of different Overlays to show the type of use and development allowed in a municipality. Heritage Overlays will list places of defensible cultural heritage significance.

Patina: An alteration of rock surfaces by molecular or chemical change (but not by attrition, hence not to be confused with sand blasting).

Pebble/cobble: Natural stone fragments of any shape. Pebbles are 2-60 mm in size and cobbles are 60-200 mm in size.

Percussion: The act of hitting a core with a hammer stone to strike off flakes.

Percussion Flaking: The process of detaching flakes by striking with a percussor.

Percussion Length: The distance along the ventral surface from the ring crack to the flake termination.

Place: Place means a site, area, land, landscape, building or other works, group of buildings or other works, and may include components, contents, spaces and views. (Australia ICOMOS Burra Charter Article 1.1)

Plane of Fracture: The fracture path which produces the ventral surface of a flake.

Planning scheme: The legal instrument that sets out the provisions for land use, development, and protection in Victoria. Every municipality in Victoria has a planning scheme.

Platform: Any surface to which a fabricator is applied when knapping.

Platform Angle: 1. The angle between the platform and core face on a core. 2. The angle between the platform and dorsal surface on a flake. 3. The angle between the platform and flaked surface on a retouched flake.

Platform Preparation: Alteration of the portion of the platform which receives the fabricator by grinding, polishing or flaking. Removal of small flake scars on the dorsal edge of a flake, opposite the bulb of percussion. These overhang removal scars are produced to prevent a platform from shattering.

Platform removal flake: A flake which contains a platform on the dorsal surface.

Point of force application: The area of the platform in contact with the indenter during knapping. Also known as point of contact.

Positive Bulb of Force: Bulb of force.

Post-depositional processes: The natural or cultural processes which may differentially impact upon archaeological sediments after they deposited.

Potlids: A concave-convex or plano-convex fragment of stone. Potlids never have a ringcrack or any other feature relating to the input of external force. They often have a central protuberance which indicates an internal initiation to the fracture. Potlids are the result of differential expansion of heated rock.

Pre-contact: Before contact with non-Aboriginal people.

Post-contact: After contact with non-Aboriginal people.

Pressure Flaking: The process of detaching flakes by a pressing force. Also Static Loading.

Primary decortication: The first removal of cortex from a core, creating a primary decortication flake. The flake will have a dorsal surface covered entirely by cortex.

Procurement: Obtaining raw materials.

Provenance: The location of an artefact or feature both vertically and horizontally in the site. Archaeologists record the provenance of artefacts and features in their field books and on the artefact bag. Provenance is important because it gives archaeologists the history and context of an object, i.e., exactly where it was found on the site.

Punch: An object which is placed on a core or retouched flake and receives the blow from the percussor.

Quarry: A place where humans obtained stone or ochre for artefact manufacture. A place where stone or ochre is exposed and has been extracted by Aboriginal people. The rock types most commonly quarried for artefact manufacture in Victoria include silcrete, quartz, quartzite, chert and fine-grained volcanics such as greenstone.

Quartz: A form of silica.

Quartzite: Sandstone in which the quartz sand grains are completely cemented together by secondary quartz deposited from solution.

Radiocarbon Dating: Also called carbon dating and C-14 dating. It is used to work out the approximate age of an artefact by measuring the amount of carbon 14 it contains. This dating technique is not perfect. It can only be used on organic remains (typically wood or charcoal). Also radiocarbon is only accurate to ±50 years, and cannot accurately date objects more than 50,000 years old.

Redirecting Flake: A flake which uses an old platform as a dorsal ridge to direct the fracture plane.

Redirection: Rotation of a core and initiation of flaking from a new platform situated at right angles to a previous platform. It produces a redirecting flake.

Reduction: Process of breaking down stone by either flaking or grinding.

Reduction Sequence: A description of the order in which reduction occurs within one block of stone.

Rejuvenate: The process of flaking in such a way that further reduction is possible or is easier. This usually involves removing unwanted features, such as step terminations, or making unsuitable characteristics more favourable, for example changing the platform angle. A Rejuvenation flake is a flake that has been knapped from a core solely for the purpose of preparing a new platform and making it easier to get flakes off a core, as it reduces that angle between platform and core surface.

Relative Dating: A general method of dating objects, which uses their relation to other objects. For example, artefacts found in lower layer are typically older than artefacts in higher layer.

Relic: Deposit, object or material evidence of human past.

Replica: A copy of a prehistoric artefact made by a modern investigator for research purposes.

Replicative Systems Analysis: A method of analysing prehistoric artefacts by creating exact replicas of all the manufacturing debris.

Reserves: The word 'reserve' derives from the land being reserved for a particular public use. Crown land retained in public ownership, but not reserved is termed unreserved Crown land.

Resharpening: The process of making a blunt edge sharper by grinding or flaking.

Retouched Flake: A flake that has subsequently been re-flaked. A flake, flaked piece or core with intentional secondary flaking along one or more edges.

Retouching: The act of knapping a flake into a retouched flake.

Ridge: The intersection of two surfaces, often at the junction of two negative scars.

Ring Crack: A circular pattern of micro-fissures penetrating into the artefact around the Point of Force Application and initiating the fracture. It appears on the ventral surface usually as a semi-circular protuberance on the edge of the platform.

Rock art: Paintings, engravings and shallow relief work on natural rock surfaces. Paintings were often produced by mineral pigments, such as ochre, combined with clay and usually mixed with water to form a paste or liquid that was applied to an unprepared rock surface.

Run: A large area of land in which squatters could pasture their stock without a lot of fencing necessary. Employed shepherds looked after various areas of the runs. Runs became consolidated pastoral holdings. Many of the runs were about 25 sq miles in area and later became parishes.

Sand: Quartz grains with only a small content of other materials. Grain size 2.00 mm to 0.05 mm.

Sandstone: A sedimentary rock composed of sand, and with only a small amount of other material, which has been consolidated by argillaceous or calcareous bonding of grains.

Sahul: This is the name given to the continent when Australia and New Guinea were a single landmass during the Pleistocene era. During this period, sea levels were approximately 150 metres lower than present levels.

Scar: The feature left on an artefact by the removal of a flake. Includes negative bulb, negative ring crack and negative termination.

Scarred tree: Scars on trees may be the result of removal of strips of bark by Aborigines e.g. for the manufacture of utensils, canoes or for shelter; or resulting from small notches chopped into the bark to provide hand and toe holds for hunting possums and koalas. Some scars may be the result of non-Aboriginal activity, such as surveyors' marks.

Scraper: A flake, flaked piece or core with systematic retouch on one or more margins.

Screen: A screen is used by an archaeologist to sift excavated soil in search of small artefacts like nails, ceramic fragments, and organic material like seeds, shell, and bone. Can be either manual (hand held) or mechanical.

Secondary Decortication: The removal of cortex from a core after the primary decortication flake. A secondary decortication flake is one that has both cortex and flake scars on the dorsal surface.

Selection: Runs were subdivided into selections for farming, agriculture and grazing homesteads. After a period of yearly rental payments, the selector could often obtain freehold ownership.

Shell midden: A surface scatter and/or deposit comprised mainly of shell, sometimes containing stone artefacts, charcoal, bone and manuports. These site types are normally found in association with coastlines, rivers, creeks and swamps – wherever coastal, riverine or estuarine shellfish resources were accessed and exploited.

Sieve: See Screen.

Significance: Significance is a term used to describe an item's heritage value. Values might include natural, Indigenous, aesthetic, historic, scientific or social importance.

Silica: Silicon dioxide.

Silcrete: A silicified sediment.

Siliceous: Having high silica content.

Site: An area designated for archaeological exploration by excavation and/or survey usually due to the presence of a concentration of cultural material.

Step Termination: A fracture plane that turns sharply towards the free surface of the core immediately prior to the termination of the fracture. The bend of the ventral surface is sharp, often a right angle.

Stratification: Over time, debris and soil accumulate in layers (strata). Colour, texture, and contents may change with each layer. Archaeologists try to explain how each layer was added--if it occurred naturally, deliberately (garbage), or from the collapse of structures-and they record it in detailed drawings so others can follow. Stratigraphy refers to the interpretation of the layers in archaeological deposits. Usually, the artefacts found on top are the youngest (most recent), while those on the bottom are the oldest.

Structures (Aboriginal): Can refer to a number of different site types, grouped here only because of their relative rarity and their status as built structures. Most structures tend to be made of locally available rock, such as rock arrangements (ceremonial and domestic), fish traps, dams and cairns, or of earth, such as mounds or some fish traps.

Surface Site: A site where artefacts are found on the ground surface.

Taphonomy: The study of the depositional and preservation processes which produce archaeological or paleontological material.

Termination: The point at which the fracture plain reaches the surface of a core and detaches a flake.

Tertiary Flake: A flake without cortex.

Theodolite: Instrument used by a surveyor for measuring horizontal and vertical angles.

Thermal Treatment: Alteration of siliceous materials by controlled exposure to heat.

Thickness: Measurement of the distance between the dorsal and ventral surfaces of a flake.

Thumbnail scraper: A convex edged scraper that is small, generally the size of a thumbnail.

Tool: Any object that is used.

Topographic map: A detailed representation of cultural, hydrographic relief and vegetation features. These are depicted on a map on a designated Projection and at a designated scale.

Transverse Cross Section: The cross section of a flake at 90° to the length.

Transverse Mercator Projection: A Projection similar to the Mercator Projection, but has the cylinder tangent at a particular meridian rather than at the equator.

True north: The direction to the Earth's geographic North Pole.

Tula: A flake with a prominent bulb, large platform and platform/ventral surface angle of about 130o, which is retouched at the distal end. Not to be confused with a Tula Adze.

Tula Adze: A composite tool observed ethnographically, consisting of a stone artefact (often a Tula), a wooden handle and resin.

Unidirectional Core: Core from which flakes were removed from one platform surface and in only one direction.

Unifacial: Artefact flaked on only one side.

Unit: Archaeologists lay out a grid over a site to divide it into units, which may vary in size, and then figure out which units will be dug. Archaeologists dig one unit at a time. Keeping track of specific measurements between artefacts and features gives archaeologists the ability to draw an overall map looking down on the site (called a floor plan), to get the bigger picture of the site.

Use-wear: Damage to the edges or working surfaces of tools sustained in use.

Ventral Surface: The surface of a flake created when it is removed and identified mainly by the presence of a ring crack.

Visibility: The degree to which the surface of the ground can be seen. This may be influenced by natural processes such as wind erosion or the character of the native vegetation, and by land-use practices, such as ploughing or grading. Visibility is generally expressed in terms of the percentage of the ground surface visible for a Project area.

10. Appendices

10.1 Photographs



Setting up for the day's filming location at Ravensworth Bridge, Wonnarua people mostly in the picture with film crew members



View of the bridge that will be improved for greater traffic flow



Looking west to the New England Highway also where some possible Archaeology could be in situ



Sound and camera crew getting ready



View looking north east along Bowman's Creek



Knowledge Holders and representatives of the Gringai, Wonnarua People



More of our people waiting, in the shade, for their turn to add knowledge, about certain places.



Facing north east looking at the damage done through unchecked erosion



Picture looking north across to Mt Olive not far from the old St Clair Mission



Debussing near a cultural site close to the current mine site



Picture of the areas where some intensive Archaeology has been done



One of our well known Elders making a late arrival



Mr Paul Hinton offering some sound advice



Facing west looking downstream at St Clair Mission site



Site visit of the old St Clair Mission, where old ancestors lived during the 19th and 20th Century



Facing south east looking up stream at St Clair Mission



Members of the Gringai, Wonnarua People, who took part in the day's cultural site visit

10.2 Power Point Presentation Workshop



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

WONNARUA STAKEHOLDER INCEPTION MEETING OVERVIEW OF PROJECT TIMEFRAME

A. key area in stage 1

- Inception meeting
- Review of Archaeological reports
- Inspection of proposed mine site by WNAC consultants
- Inspection of Mt Owen Coal & video project landscapes by Wonnarua people
- Meeting with Wonnarua elders & knowledge holders
- Record Wonnarua Oral Histories
- Post meeting of Wonnarua people

B. Key area in stage 2

- Intergenerational Equity meeting
- Draft report
- Review workshop for overall project
- Final report

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

STAGE 1 INCEPTION MEETING

- introduction to consultants and project team
- Tracey Skene. providing ecological advice for the project.
- Keith Rodgers. providing administration, organization, and technical advice.
- Victor Perry. providing the report.
- Laurie Perry. CEO WNAC , manager of Cultural heritage groups, liaison with Mt Owen on behalf of Wonnarua people.

- WNAC obligations under contract with Mt Owen Coal.
- Overview from Keith Rodgers

- All Archaeological reports will be reviewed and discussed by the WNAC stakeholders
- We will then discuss our heritage values and areas of significance for the Mt Owen area.

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

MT OWEN INCEPTION MEETING

- Archaeological reports : review of previous reports, surveys and excavations in the area inside and surrounding the current project.
- Again we find that several Archaeologist have been involved with Aboriginal site management, and recording during the last 22 years.
- The archaeologist and environmental firms are Pam Dean Jones , DECCW, ERM, ERM Mitchel McCotter, Ground Truth, HLA Envirosciences Phil Huges, Margaret Sullivan, AMBS Neville Baker, Jill Ruig and lastly Umwelt.
- Therefore the total of reports excavations and surveys are 29 during the last 22 years from 1991-2013.
-

The Wanaruah Land council were the main Aboriginal group who were consulted before the native title groups came in into power after 1993.

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

CULTURAL SITE SURVEY,

COLLECTION & INVESTIGATION

OF THE PROPOSED RAIL-LOOP

26TH, 27TH & 28TH
FEBRUARY 1996

BHP MT OWEN

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

Wonnarua tribal
Council members
And Archaeologist
Excavating along
A graders scrape





MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

BHP owned the Now Mt Owen Mine for during Early 1990's





MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

NPWS members Were present during this work which was carried out under the rangers permit.





MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

REPORT
ON
ARCHAEOLOGICAL
SURVEY

AT

BHP
MT OWEN

ON THE

6,7,8TH & 13TH OF MAY
1996

BY

WONNARUA TRIBAL COUNCIL INC

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

The following pictures Are inside the Proposed conservation zone of York's creek.



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

This picture show
Some of the people
Involved in the field
Inspection.
Jill Ruig
Lee Perry and
Trevor Griffith



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

Some of the Landscapes on the Flat areas inside the Creek line



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

Pictures of erosion Along the creek banks



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



North & South View of Site (11)



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

Recording the artifacts
On site.

Site (11) Using Large Size



Site (11)



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

Recording of a site
Above the creek line.



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

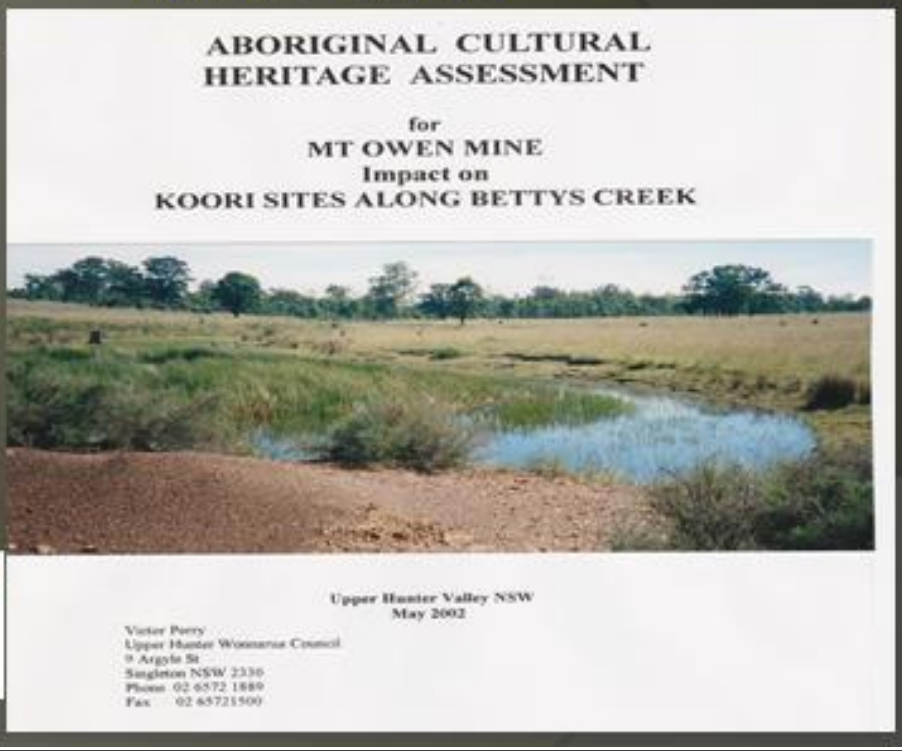
REVIEW OF ARCHAEOLOGICAL REPORTS



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

This report was made During the early part Of the new century.



ABORIGINAL CULTURAL HERITAGE ASSESSMENT

for

MT OWEN MINE

Impact on

KOORI SITES ALONG BETTYS CREEK

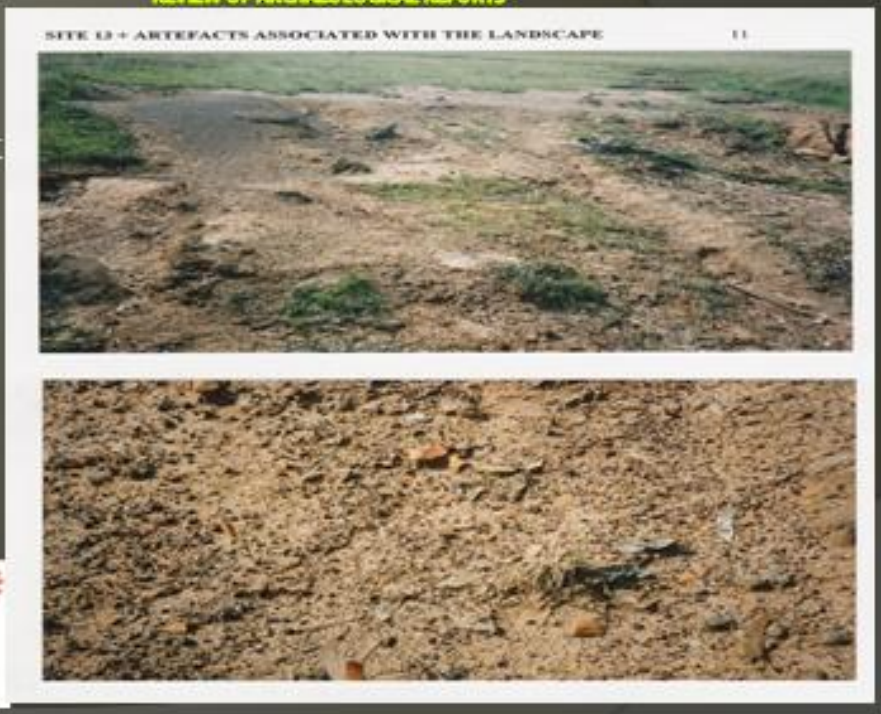
Upper Hunter Valley NSW
May 2002

Victor Perry
Upper Hunter Wonnarua Council
9 Argyle St
Singleton NSW 2330
Phone 02 6572 1889
Fax 02 65721500

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

The pictures In this Report show the Sites located during The survey that WTC Completed in 2002.



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



PICTURE OF THE TOP PORTION OF THE STUDY AREA - SITES 5, 6, 7, 10, 11, 12, 13 ARE IN THE PHOTO

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



PHOTO FACING WEST LOOKING ACROSS THE VALLEY FLOOR

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



PHOTO OF BOTTOM END OF STUDY AREA FACING EAST - HIGH DENSITY OF SITES LOCATED IN THIS AREA

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



PICTURE SHOWING LANDSCAPE - SITES LOCATED IN AREA ARE 40, 23, 35, 32, 33

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



PICTURE OF STUDY AREA LOOKING NORTHWARDS OF BETTY'S CREEK

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

Artefacts recorded near A dam

SITE 40 TAKEN IN 1999





MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

UPDATED PHOTOS OF SITE 40 WITH TRACEY MILLER IN PHOTO TAKEN 2002





MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



PICTURE OF ERODING AREA INBETWEEN SITES 40 AND 32

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS

SITE 41 TAKEN IN 1999 22





MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



RE-LOCATED ABORIGINAL SITE 41

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



RE-LOCATED ABORIGINAL SITE 41

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



RE-LOCATED ABORIGINAL SITE 42

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



RE-LOCATED ABORIGINAL SITE 42

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

SITE 43 TAKEN IN 1999





MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

REVIEW OF ARCHAEOLOGICAL REPORTS



SITE 43 LOCATED IN DISTURBED DRAINAGE LINE

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

CULTURAL ASSESSMENT VALUES AND SIGNIFICANCE

- The Wonnarua descendants of Sarah Madoo will need to consider and discuss the following topics.
  - Social Values
  - Historic Values
  - Scientific or Archaeological Values
  - Aesthetic Values
  - Care and control
  - Intergenerational Values

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

HISTORIC VALUES

- What historic values do we have for the Mt Owen area?
- Is it a richer site than other cultural places close to this region, how does it compare to other Wonnarua landscapes?
- Are there any important sites that our ancestors used near or inside of this project, and if so, what do you wont to do with any information?
- What are our current and past values that we need to apply for this development zone, including environmental heritage.
- What are our concerns regarding the Archaeological values?

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

AESTHETIC VALUES

- The Aesthetic value has changed due to the coal mining activity during the past 22 years therefore what value do we place on this area today? High , Moderate or low value?
- What do we think of the visual contract and impact because of the current disturbed landscape by mining?
- What flora and fauna will be lost forever because of this project? And what does it mean to us as a descendant of the Wonnarua people.
- What in the natural environment will be lost due to this development proceeding?

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

CARE AND CONTROL

- What are our recommendations for Mt Owen Mine concerning what happens to the sites and the artifact material once the sub-surface testing and salvage work has been completed?
- What would we as a group like to see happen regarding the artifact analysis? Do we need to be involved in th artifact analysis?
- Should the cultural material salvaged remain in the area? Or maybe we could hold a small ceremony with the elders to return the artifacts back to country? Perhaps a time capsule with our historical information about who we are and what we did with the material.
- Or who should have care and control for the heritage items?

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

INTERGENERATIONAL EQUITY

- What is the cumulative impact to the regional environment? How does this new project affect our cultural heritage and cultural values?
- What conservation outcome would be culturally appropriate in terms of intergenerational equity.
- Some things to consider could be artifact recording and training, cultural mapping and recording the untold story of the Mt Owen region! Other cultural heritage offsets ?

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

WONNARUA ORAL HISTORY INTERVIEWS

- The opportunity for Wonnarua people to have input into the oral history of the Ravensworth area.
- Any story's of connection that are important to the Wonnarua as a whole.
- Dreaming story's , contact history, men's & women's sites?


MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT
POST MEETING UP DATE.
Is there anything more that we need to consider regarding this development and our collective interest as people with connection to our tribal homeland.
are there other concerns regarding, the off-set areas? Outside of the mining foot print.
Are there any environmental issues that we need to include in our report, that we have missed out on or not included so far?
Have we covered all of our interests in this area? And are we happy to move forward into the report.
Wonnarua Nation

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

STATEMENTS OF HERITAGE OVERALL VALUES AND SIGNIFICANCE

- What we need to do is consider a clear and concise statement of our cultural significance for this area of land inside the project proposal.
- The information we provide needs to document our values and what weight we put behind it.
- This will help us to formulate our over all position regarding our places of importance inside the project.

MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT

RECOMMENDATIONS

- We need to think about and provide clear recommendations including any proposed requirements for .
- Mitigations, such as further research. Oral history recording?
- Recommendations to ensure intergenerational equity?
- Any other items considered relevant to manage impacts on cultural values


MT OWEN CONTINUED OPERATIONS CULTURAL HERTIAGE REPORT
AVOIDING AND MINIMISING HARM TO CULTURAL HERITAGE SITES
What are the areas that we wont to be left in one piece for future generations ,
Or what site need to be protected and damage avoided, and why!
What areas or heritage area are not of major importance and can be harmed, In consideration of our input and management options.
What ideas and management options do we see need to happen in regards to the loss of these sites
Wonnarua Nation

10.3 Mt Owen Continued Operations Project



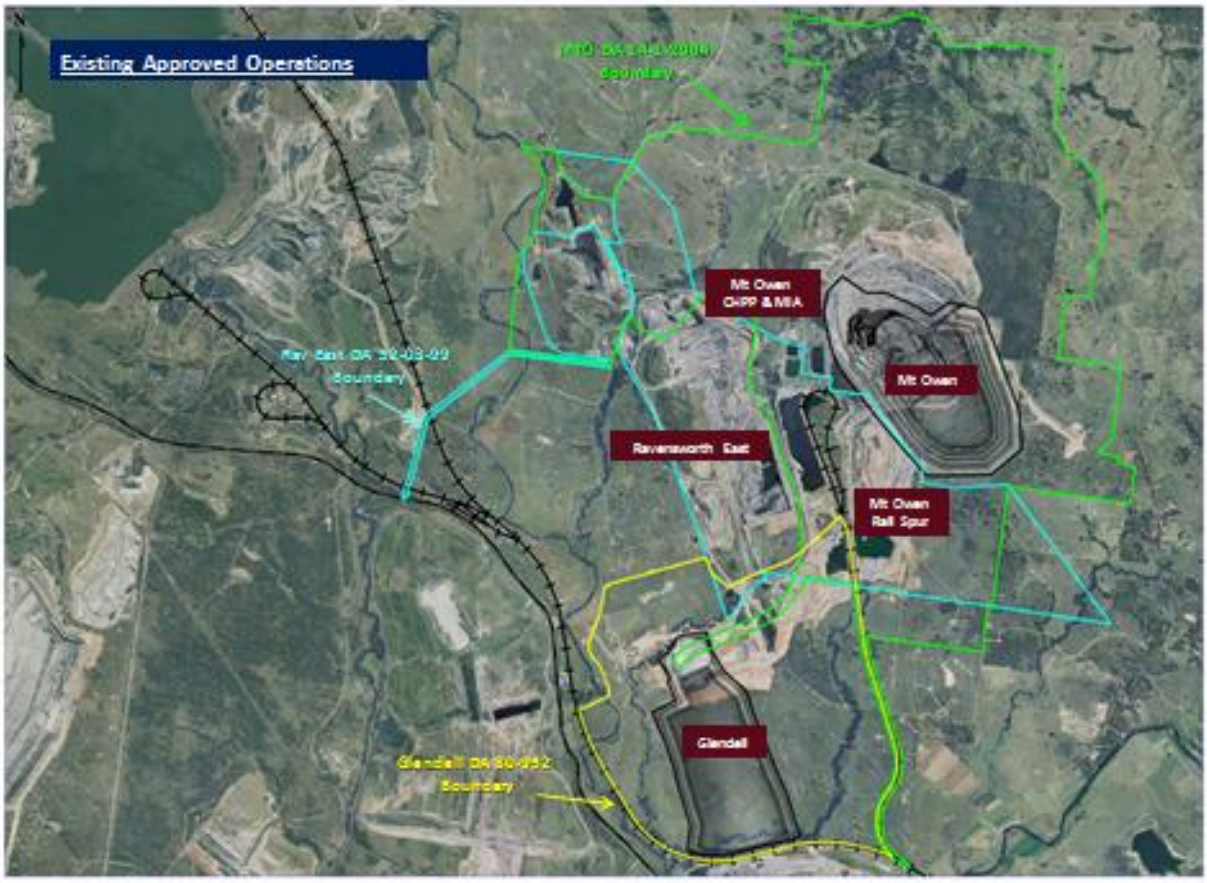


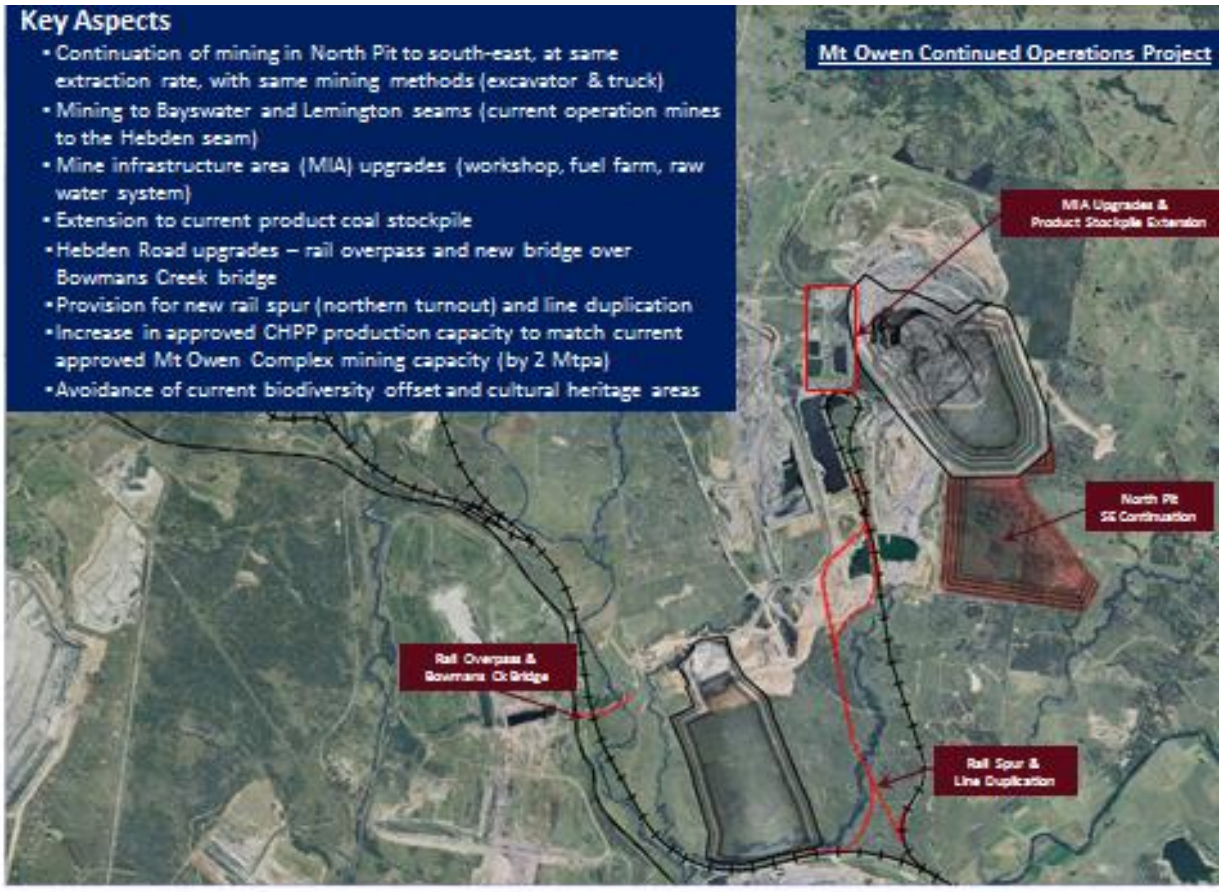
Agenda

- **Project Overview**
  - Key Aspects
  - Justification and Benefits
  - Approval Strategy Overview
- **Key Constraints**
  - Environmental Constraints
  - Land and Leases
- **Infrastructure**
- **Aboriginal Cultural Heritage Assessment**

3

Project Overview


Existing Approved Operations
Mt Owen CHPP & MIA
Mt Owen
Ravensworth East
Mt Owen Rail Spur
Glendell


Key Aspects
• Continuation of mining in North Pit to south-east, at same extraction rate, with same mining methods (excavator & truck)
• Mining to Bayswater and Lemington seams (current operation mines to the Hebden seam)
• Mine infrastructure area (MIA) upgrades (workshop, fuel farm, raw water system)
• Extension to current product coal stockpile
• Hebden Road upgrades – rail overpass and new bridge over Bowmans Creek bridge
• Provision for new rail spur (northern turnout) and line duplication
• Increase in approved CHPP production capacity to match current approved Mt Owen Complex mining capacity (by 2 Mtpa)
• Avoidance of current biodiversity offset and cultural heritage areas
Mt Owen Continued Operations Project
MIA Upgrades & Product Stockpile Extension
North Pit SE Continuation
Rail Overpass & Bowmans Ck Bridge
Rail Spur & Line Duplication

Key Aspects of Mt Owen Continued Operations Project

- Project objective is to maximise resource extraction within the Xstrata-owned mining tenements, thereby extending the mine's economic life and providing ongoing employment for the existing workforce.

- Project presents opportunities to:
  - achieve improvements to public road safety
  - improve efficiency in rail movements
  - achieve effective utilisation of existing infrastructure

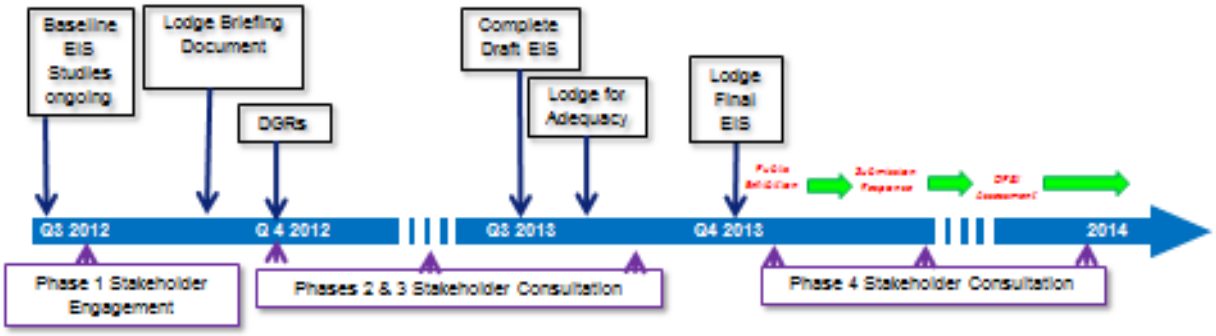
- The main features of the approved operations will not be affected by the Project, that is there is no proposed change to:
  - mining extraction rates
  - mining methods
  - mining equipment
  - employment
  - product transport
  - operating hours

Key Aspects of Mt Owen Continued Operations Project

Aspect	Current Approved	Proposed Change
Mine Life	* 2021	* 21 years from date of approval of the project
Limits on Extraction	* 10 Mtpa ROM	* No change proposed
Tailings Management	* Use of Ravensworth East voids for tailings emplacement	* Use of Ravensworth East voids for long term tailings emplacement
Coal Handling and Transport	Mt Owen CHPP and Rail Loop: *15 Mtpa ROM	Mt Owen CHPP and Rail Loop: *17 Mtpa ROM (through CHPP process improvements)
Infrastructure	Mt Owen CHPP and Rail Loop: * Mt Owen rail loading facility and rail loop to Main Northern Rail line * CHPP and coal stockpiles Mt Owen Mine: * MIA (workshop, etc)	Mt Owen CHPP and Rail Loop: * Provision for northern turnout and new rail line to allow for XRail parking off main line and turnaround * Product coal stockpile extension Mt Owen Mine: * MIA upgrades
Road Upgrades		Hebden Road to improve safety: * Main northern railway overpass * New bridge over Bowmans Creek bridge

8

Proposed Project Timeline and Approval Pathway



- A development application under Part 4 (State Significant Development) of the EP&AAct for Mt Owen Mine, including continuance of existing operations at Mt Owen and on-going use of Ravensworth East voids and infrastructure (Ravensworth East consent to be surrendered).

Key Constraints

Outcomes of Prefeasibility Environmental Constraints Studies

Considerable work was completed as part of prefeasibility studies to understand key environmental aspects, including:

- air quality
- noise and vibration
- Aboriginal Heritage
- Shared Heritage
- surface and groundwater management
- biodiversity, including identification of possible offset properties
- soils, land use and agriculture
- traffic and transport
- greenhouse gas and energy
- mine closure, including geochemistry

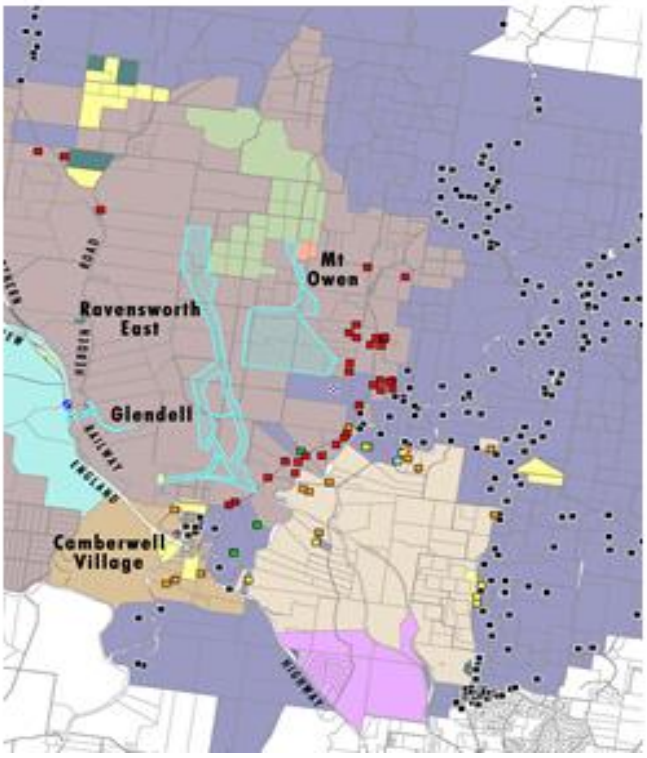
Outcomes of Prefeasibility Environmental Constraints Studies

Prefeasibility level environmental constraints studies have been completed, resulting in changes to mine design and project components, including:

- Existing environmental monitoring programs changed where necessary to provide solid baseline
- Regional water model under development to support future impact studies - no mining to be undertaken within 150m of alluvial aquifers (Main Creek)
- Existing biodiversity offsets avoided
- Sensitive cultural heritage areas avoided
- Preliminary noise and air quality modelling completed, with opportunities for improvements identified
- Comprehensive stakeholder engagement strategy developed, based on solid understanding of project constraints

12

Land Ownership and Surrounding Landholders



Xstrata own all land within the mining area

Nearest private residences within Falbrook area (along Falbrook and Middle Falbrook Roads)

Preliminary air quality and noise modelling indicates extension of existing affectation zone likely

13

Infrastructure

Mt Owen Infrastructure

MIA - Mine infrastructure Area

- Raw water system upgrade
- Workshop expansion
- Fuel storage upgrade
- Tyre storage facility
- Car park extension

CHPP - Product Stockpile

- CHP upgrade
- Installation of an extra coal valve
- Extend push-out capacity

Hebden Road

- Upgrade of highway intersection
- Rail overpass
- Duplication of the Bowmans Ck bridge

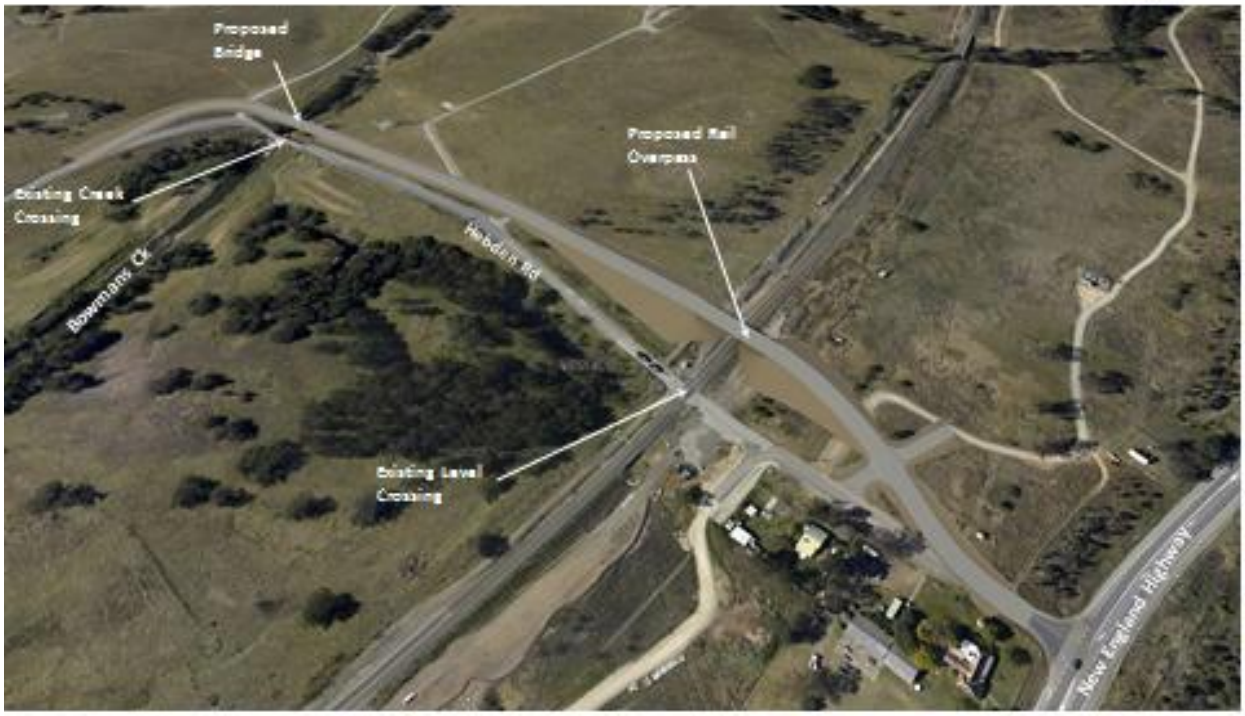
Rail Spur

- New northern turnout
- Duplication of rail spur

Mt Owen Continued Operations



Hebden Rd upgrade



Aboriginal Cultural Heritage Assessment

Aboriginal Cultural Heritage Assessment

The Mount Owen Complex will be undertaking an Aboriginal Cultural Heritage Assessment (ACHA) process that is consistent with the

- *Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment and Community Consultation* (DEC 2005)
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (DECCW 2010)
- Burra Charter (Australia ICOMOS 1999)
- *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011).

The archaeological assessment for the proposed Project will be undertaken by **OzArk** and a consolidated Aboriginal Cultural Heritage Assessment will be undertaken to submit to OEH.

18

Aboriginal Cultural Heritage Assessment

Cultural Heritage Assessment Program

- The cultural heritage assessment program is open to all registered Aboriginal parties, including persons represented by the Wonnarua People Sara Madoo descendants group and will contribute to an integrated Aboriginal Cultural Heritage Report as a component of the project EIS.

- Mount Owen Complex is also able to undertake separate cultural heritage mapping and oral history recording for members of the Wonnarua People if required.

19

Aboriginal Cultural Heritage Assessment

Archaeological Assessment

- **Intensive Survey** - areas include all areas previously unassessed and areas with high potential archaeological values, the majority of the Project Area will be assessed by intensive survey coverage.
- **Less intensive Survey** - archaeological potential in areas is low, although it is recognised that Aboriginal sites and objects may still be present in low numbers
- **Desktop only** - areas that are obviously thoroughly disturbed



20

End

Disclaimer

This presentation and its contents are confidential and may not be reproduced, redistributed or passed on, directly or indirectly, to any other person or published, in whole or in part, for any purpose without the written consent of Xstrata plc ("Xstrata").

This presentation does not constitute or form part of any offer or invitation to sell or issue, or any solicitation of any offer to purchase or subscribe for any securities, or a proposal to make a takeover bid in any jurisdiction. Neither this document nor the fact of its distribution nor the making of the presentation constitutes a recommendation regarding any securities. This presentation is being provided to you for information purposes only.

Certain statements, beliefs and opinions contained in this presentation, particularly those regarding the possible or assumed future financial or other performance of Xstrata, industry growth or other trend projections are or may be forward looking statements. Forward-looking statements can be identified by the use of forward-looking terminology, including the terms "believes", "estimates", "anticipates", "expects", "intends", "plans", "goal", "target", "aim", "may", "will", "would", "could" or "should" or, in each case, their negative or other variations or comparable terminology. These forward-looking statements include all matters that are not historical facts. By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future and may be beyond Xstrata's ability to control or predict. Forward-looking statements are not guarantees of future performance. No representation is made that any of these statements or forecasts will come to pass or that any forecast result will be achieved.

Neither Xstrata, nor any of its associates or directors, officers or advisers, provides any representation, assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statements in this presentation will actually occur. You are cautioned not to place undue reliance on these forward-looking statements.

Other than in accordance with its legal or regulatory obligations (including under the UK Listing Rules and the Disclosure and Transparency Rules of the Financial Services Authority), Xstrata is not under any obligation and Xstrata expressly disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

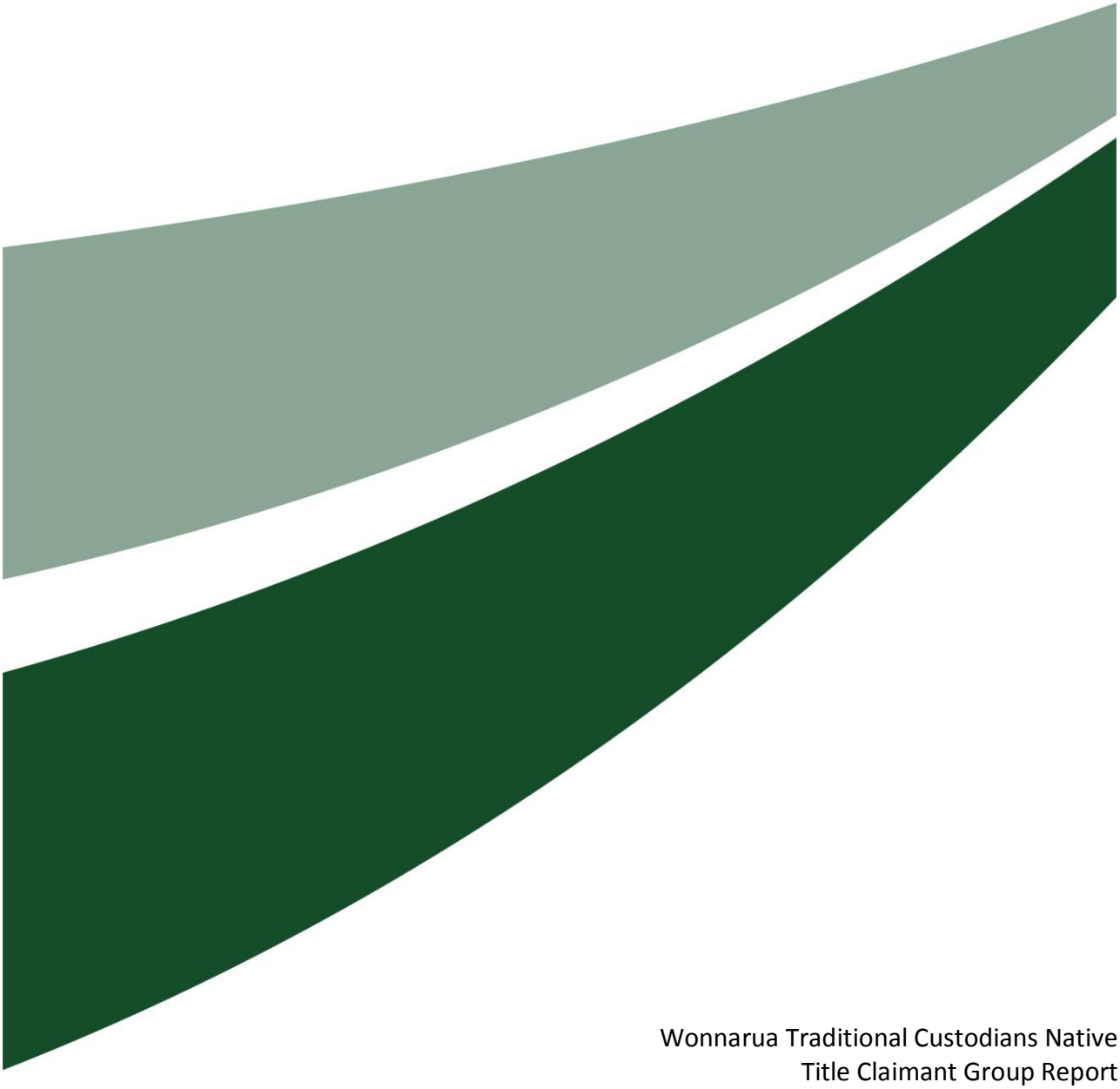
This presentation may contain references to "cost curves". A cost curve is a graphic representation in which the total production volume of a given commodity across the relevant industry is arranged on the basis of average unit costs of production from lowest to highest to permit comparisons of the relative cost positions of particular production sites, individual producers or groups of producers across the world or within a given country or region. Generally, a producer's position on a cost curve is described in terms of the particular percentile or quartile in which the production of a given plant or producer or group of producers appears. To construct cost curves, industry analysts compile information from a variety of sources, including reports made available by producers, site visits, personal contacts and trade publications. Although producers may participate to some extent in the process through which cost curves are constructed, they are typically unwilling to validate cost analyses directly because of commercial sensitivities. Inevitably, assumptions must be made by the analyst with respect to data that such analyst is unable to obtain and judgment must be brought to bear in the case of virtually all data, however obtained. Moreover, all cost curves embody a number of significant assumptions with respect to exchange rates and other variables. In summary, the manner in which cost curves are constructed means that they have a number of significant inherent limitations. Notwithstanding their shortcomings, independently produced cost curves are widely used in the industries in which Xstrata operate.

No statement in this presentation is intended as a profit forecast or a profit estimate and no statement in this presentation should be interpreted to mean that earnings per Xstrata share for the current or future financial years would necessarily match or exceed the historical published earnings per Xstrata share.

The distribution of this presentation or any information contained in it may be restricted by law in certain jurisdictions, and any person into whose possession any document containing this presentation or any part of it comes should inform themselves about, and observe, any such restrictions.

By attending the presentation and/or accepting or accessing this document you agree to be bound by the foregoing limitations and conditions and, in particular, will be taken to have represented, warranted and undertaken that you have read and agree to comply with the contents of this notice including, without limitation, the obligation to keep this document and its contents confidential.

22



Wonnarua Traditional Custodians Native
Title Claimant Group Report

Public version

Wonnarua Traditional Custodians Native Title Claimant Group

Aboriginal Cultural Heritage Values Assessment, Mt Owen Project

Working Draft, August 2013

This report is provided for public access

Draft

Prepared by

The Wonnarua Traditional Custodians Native Title claimant group comprising Wonnarua Claimants, Elders and descendants of Emily mother of Henry Harry Taggart, Sara Madoo (Camboo), Susan Bishop (Dangar/Young), Mary Ann Webster, Matilda Hughes (including Mary and Emily Shoe), and George Cain.

Draft

Document Control

Document:	Wonnarua Traditional Custodians Native Title claimant group Aboriginal Cultural Heritage Values Assessment, Glencore Mount Owen expansion project
Ref.:	WTC ACHVA Restricted Access
Date:	August 2013
Prepared by:	Wonnarua Traditional Custodians Native title Claimant group; with technical support from Connect for Effect Pty Ltd and their subcontracted specialists
Reviewed by:	WTC Elders and WTC Registered Aboriginal parties; and Connect for Effect Pty Ltd.

Draft

Wonnarua Traditional Custodians Native Title claimant group' Statement

The Wonnarua Traditional Custodians Native Title Claimant group (WTC) asserts our deep traditional and historic cultural knowledge, spiritual and customary responsibilities over Wonnaruah[1] Country, and we assert our continuing connections to Wonnaruah Country broadly and more specifically to the Project area described by Glencore Mount Owen (formerly Xstrata) as the proposed Mount Owen expansion Project area.

In this report, the WTC provides cultural heritage values assessment and mitigation and management advice to inform the overall Aboriginal Cultural Heritage Assessment Report (ACHM 2013), the Aboriginal Archaeological Assessment Report (OzArk 2013), the Historic Heritage Assessment (Umwelt 2013), the biodiversity assessment and the overall consolidated Environmental Assessment.

Much of the information provided in this report has been provided by the collective voice of the WTC families including our Elders and knowledge holders. This is a significantly abridged public report as most of our sacred knowledge and personal stories remain as restricted information. All individuals or spokespersons specific statements have been removed

This report is provided to Glencore Mount Owen subject to the confidentiality agreement public information arrangements. The WTC assert our rights to restrict our cultural knowledge under Sheet 3 of the *Aboriginal cultural heritage consultation requirements for proponents* (DECCW 2010) and in accordance with our contractual agreement with Glencore Mount Owen.

This report also has applied the principles of the *Draft Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation* (DoP and DEC 2005), *Aboriginal cultural heritage consultation requirements for proponents* (DECCW 2010), *Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH 2011); and the Australia ICOMOS Burra Charter (ICOMOS 1999) to inform this report.

> *"Aboriginal people have lived in NSW for more than 40,000 years. There's evidence of this everywhere, in rock art, stone artefacts and sites across the state.*
>
> *If you thought Aboriginal heritage was just about rock art, think again. Aboriginal culture is much bigger than this. It's a living, ongoing thing. It's deeply linked to the entire environment - plants, animals and landscapes.*

[1] The are several spellings of the word Wonnarua, for example Wonnuaruah, Wannerawa, Wonarua, Wonnah Kuah (from Tindale 1974). The WTC spell the name of our people Wonnarua and the name of our Country Wonnaruah.

The land and waterways are associated with dreaming stories and cultural learning that is still passed on today. This cultural learning links Aboriginal people with whom they are and where they belong.

Protecting Aboriginal heritage means far more than looking after sites in parks or artefacts in museums. Aboriginal people need to be able to access land to renew their cultural learning. And they have to be involved and consulted in the conservation of the natural environment." (OEH, 2011)

Our landscape is changed and the meaning of the area has distinct yet intrinsically linked relationships. Pre colonisation Wonnarua life was vastly different to the experiences of our families who were confronted by frontier and colonial impacts.

This report also includes publically available recommendations the remainder of our values and recommendations are restricted.

This report is dedicated to our ancestors who lived and preserved our cultural practices, passed them down despite punitive measures and all that our families endured. This report is also dedicated to our ancestors who did not survive the tyranny and attempts of genocide by colonists.

This report is also dedicated to all Wonnarua people who have been dispossessed of our land and forced into missions such as Saint Clair and Walhollow, reserves such as the Camberwell Common and Yumba[2] areas as Redbournbery or sent to homes such as the Singleton girls and/or boys schools or Monte Pio to be then sent to homesteads throughout the districts within Wonnaruah Country including within the Parishes of Vane, Liddell and Goorangoola (modern day Mount Owen and the neighbouring mines) and beyond to provide farm labouring or housekeeping services for colonists. For many abuses to our people continued in these circumstances.

Some of us have had our children taken away, or have been removed ourselves and still bear the pain of these experiences. Some of our Elders and ancestors have had their wages stolen by successive governments, and not recognised for our defence of this Country in successive wars.

Despite these terrible events, Wonnarua people have prevailed, our Dreaming has prevailed and our ancestors and Elders continue to guide us today.

The survival of our people and the coming together of Wonnarua descendants is evidence of our tenacity for cultural endurance, our values are strongly influenced by our ancestral journeys, our great- great grandparents and grandparents survival and our lived experiences.

We thank Glencore Mount Owen for the opportunity to capture our cultural values as they relate and associate with the modern day Mount Owen Project area and its relationship within the Wonnaruah landscape.

However, Glencore Mount Owen's (and other mining companies) insatiable thirst for coal in the Hunter Valley is leaving an irreparable scar on our cultural landscape.

[2] Yumba means camps –shelters set up for fringe living. For many of our families these were the only homes we had.

Draft

"It feels almost too late for the protection of cultural values in the modern day Mount Owen project area….so much is buggered. All we can do is to try and protect the area's most important to us …… regardless of whether they are in the direct excavation or infrastructure footprint…. **Deliberately blank** *WTC spokespersons combined statement*

"The rate of approvals makes us breathless. Our mother earth…….. the land is hurting, our rivers and waterways are hurting, our animals and natural resources are hurting and our people are hurting. In New South Wales in particular, the assessment processes are more often than not just a machine for documenting what governments will approve mining companies to bulldoze what they are about to dig up or detonate." *WTC spokespersons combined statement*

Deliberately blank

"We have a holistic view to water, land and culture and do not separate them. We understand the seasonal cycles and the importance of water management. Our cultural life ways including our movement within our Wonnarua boundaries was guided by water supply and seasonal resources. The weather and our rain patterning was and remains very important to us". *WTC claimant group combined statement*

"We are fundamentally and culturally opposed to open cut mining and associated activities which destroy our culture and heritage and work to make invisible our deeply spiritual and cultural values and ancestral footprints. We as custodians of the traditional lands and waters of Wonnaruah Country believe the actions of successive governments approving mining and multinationals cumulatively scarring the landscape is another form of cultural genocide to our people and our culture." *WTC spokespersons combined statement*

"Our question is simple- how is cultural sustainability and intergenerational legacy being demonstrated, when so much of our culture and heritage across Wonnaruah Country is approved for destruction?" *WTC descendants combined statement*

Figure: A Aerial view of the Hunter Valley, showing transformational landscape change resulting in destroyed cultural integrity (from The Greens 2010)



Figure B: "Hunter's River, New South Wales" (Earle 1826)



General Notices

Notice for Historic Records

Some of the information contained within the historic records of this ACHVA may be viewed as being offensive to Wonnarua people because of the context in which they were created. Often the language and opinions expressed in the records may be considered as highly offensive. The WTC have included these materials as they depict the racism and harsh reality of the experience of our people at that time.

Deliberately blank

Deliberately blank

Deliberately blank

These records have also been included to assist the proponent and assessing regulating authority to gain a deeper understanding our cultural values, our concerns relating to specific areas within the Mount Owen disturbance boundary and areas in close proximity to the proposed project expansion.

We also believe that if this understanding is realised that there will be a greater appreciation of our recommendations to mitigate or ameliorate direct and indirect impacts which are likely to arise as a result of Glencore Mount Owens proposed expansion project, if approved.

Draft

Attributions

Deliberately blank

The WTC spokespersons would like to acknowledge and thank the participation of our families, including our Elders, loremen and cultural knowledge holders and those with personal and deeply moving historic and contemporary connections to our Country, in preparing this Aboriginal cultural heritage values assessment. We acknowledge the sharing of personal, family, cultural and historic knowledge which has informed this assessment report.

Some of our family members have chosen to restrict access to some of their cultural values and culturally sensitive information, with this information only provided to specified persons as agreed in our deed of agreement between Glencore, the WTC and Connect for Effect Pty Ltd. This decision is respected by the WTC spokespersons and is a contractual requirement of this reports distribution to Glencore. Protocols to manage sensitive cultural information have been developed by the WTC in collaboration with Connect for Effect Pty Ltd and are reflected in this report and the contractual agreement between the WTC and Glencore Mount Owen.

However, a cultural values statement and statements on non-sensitive management measures, care and control suggestions and intergenerational equity considerations have been provided to inform the broader ACHA report (ACHM 2013) and for inclusion in Glencore's public and consolidated EIS.

The WTC would like to acknowledge and thank the Elders and their families who comprise the WTC for their contributions of cultural values and cultural heritage management, care and control, intergenerational equity suggestions and draft review comments to inform this ACHVA.

The WTC would also like to thank other members of our Aboriginal community who may not comprise the current WTC claimant group; however their contribution to providing detail relating to the historic values of the Project areas is appreciated.

Further details are included in the restricted and non-disclosed WTC report.

Draft

The WTC would like to thank the personnel from Connect for Effect for their assistance in collating this report. We would also like to thanks Michael Owens for assisting with the filming of some of our Elders and knowledge holders as this was an important component of the assessment process.

The WTC would also like to acknowledge OzArk Environmental and Heritage Management Pty Limited (OzArk) who provided archaeological assessment information to inform this ACHVA, which has been included in this report. The WTC would like to acknowledge Ben Churcher and the OzArk team for their contribution.

Glencore Mount Owen provided technical and environmental details to inform this ACHVA which has been included in this report. The WTC would also like to acknowledge Glencore Mount Owen for providing a consultation and engagement model with supports the cultural protocols and levels of comfort for the WTC Elders and knowledge holder family members to share their personal stories and cultural, historic and aesthetic values. We also have provided statements relating to the evidence of our material culture (archaeological evidence) and what these cultural artefacts or sites mean to us as a people.

The opportunity to manage our own documentation in sharing of cultural values and personal information has resulted in our families being able to contribute more in the assessment process. This level of cultural participation has not been provided to the Wonnarua descendants before and this process has done much to provide a culturally safe and appropriate way in which to share and document our cultural values. This has been an extraordinary empowering and emotional experience for us and we hope that Glencore recognize the mutual value of providing this level of self-determination in values assessment and sharing. Without the opportunity to record our own cultural heritage we would not have shared with the depth of sharing we have undertaken to inform this assessment. For this we are most appreciative.

Glencore Mount Owen has actively engaged and provided Project-specific information. Glencore Mt Owen has also been committed to the adoption of approaches to respond to registered Aboriginal parties values assessment findings and concerns relating to the Project and preferred consultation approaches. Glencore Mt Owen's information has been included in this ACHVA report. The WTC would like to acknowledge Glencore Mt Owen for its contribution to inform this report.

Draft

Table of Contents

Wonnarua Traditional Custodians Native Title claimant group' Statement 4
General Notices 8
Attributions 9
Consultation objectives and approaches 12
Sorry business and burials 20
Mount Owen archaeological footprint Sources of information 32
Threats to our culture and heritage 43
Summary of management measures 69

Draft

Consultation objectives and approaches

Reflecting the requirements of the Project DGRs and OEH guidelines for Aboriginal cultural heritage assessment in NSW, participation and involvement of Elders, spokespersons and claimant group descendants of in all stages of cultural heritage assessment and management was fundamental to the Project ACHVA. This approach also reflects a key principle of the Burra Charter framework, being that cultural heritage assessment and management should provide for the participation of people for whom the place has special association and meanings, or who have social, spiritual or cultural responsibilities for that place (Article 12).

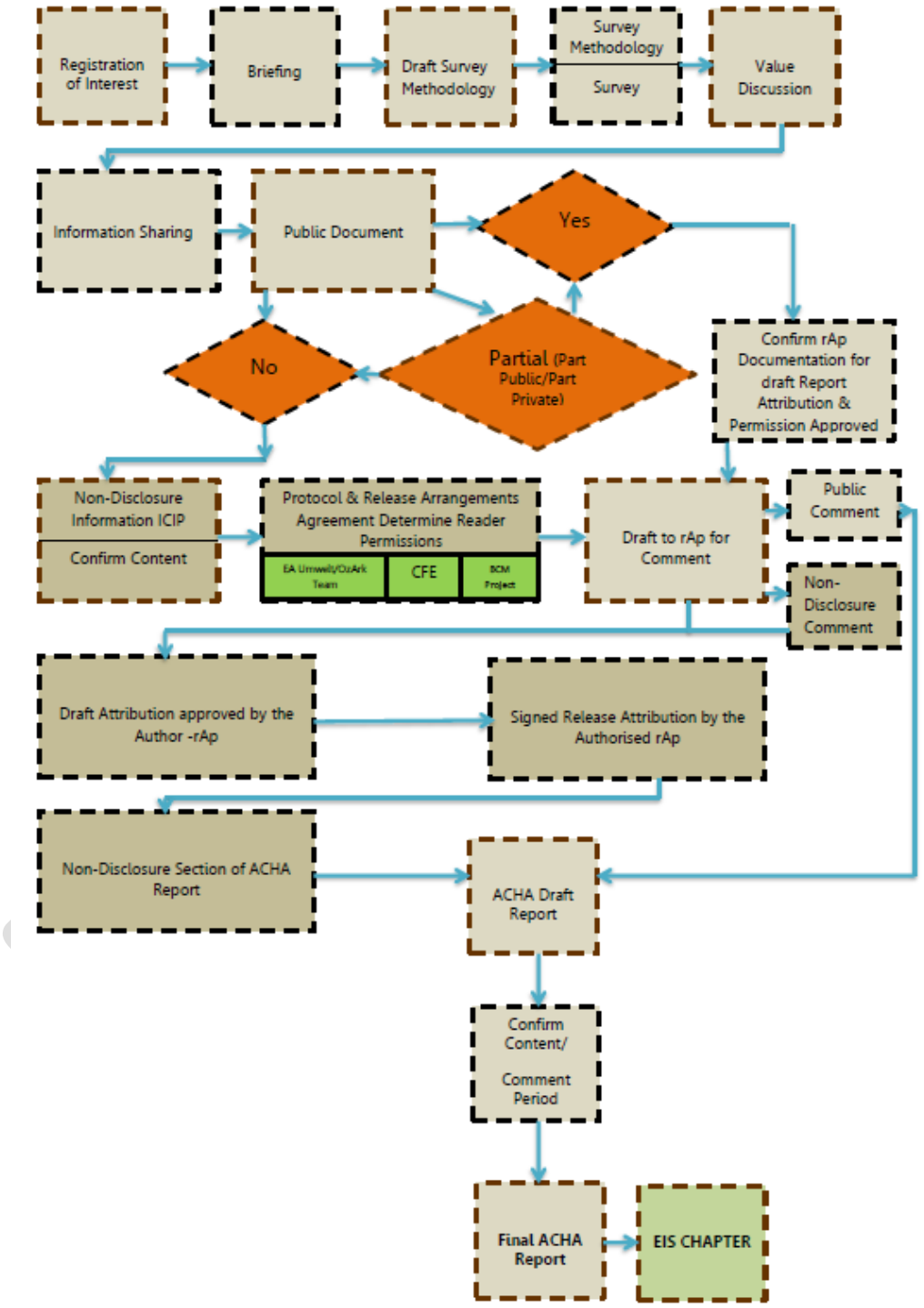
However, underpinning both the consultation process and the consultation reporting process were fundamental Wonnarua protocols and lores and customs. Over the consultation period a number of approaches were undertaken.

Within our families we identified a range Elders and spokespersons and knowledge holders who had intimate knowledge of the Mount Owen area and broader Wonnaruah Country. Some of our contributors also had a long term experience in trying to save our culture and heritage within the Mount Owen operations site. We assert strong and unbroken connections to Country lore and customs and community, including Traditional connection to the area, historical connections, connection to Country, connection to community and reconnecting attachments; as well as custodial responsibility for our Aboriginal cultural heritage assessment and management.

Throughout all stages of the assessment process, our families were also invited to self-identify how they would like to participate in the Project's Aboriginal cultural heritage assessment process, including the inclusion of and access to any cultural information that they wanted to share to inform the assessment process, and what information (if any) should remain non-disclosed in the assessment and reporting process (both within the WTC and externally to Glencore and their agents). A set of protocols and a flowchart and signed consultation permission forms was provided and signed by each collaborator to inform the consultation assessment approach, as illustrated in the below figure. Where this was identified, cultural protocols were respected and private discussions held in response to WTC parties requests. Full details and WTC values assessment statements and recommendations are provided in the WTC restricted ACHVA Report.

Draft

Figure 1: Consultation Protocol



Source: Connect for Effect (2012) approach used for BCM project and adopted for Glencore Mount Owen project

During the initial Stage 1 registration phase and into Stage 2 of the consultation process, the WTC native title claimant group were approached by Glencore (formerly Xstrata) and invited to undertake separate consultation and to prepare their own ACHA values report to inform the Project area and

the proposed expansion project. Consultation methodology was reviewed by the WTC and Connect for Effect was engaged as technical support to assist the WTC in building capacity to undertake our own Aboriginal cultural heritage values assessment. The WTC would like to acknowledge and thank Glencore Mount Owen in the respectful recognition of knowledge holders and of Wonnarua native title claimant group families in the region who sought to be consulted through the WTC. This resulted in an agreed commissioned scope of works and consultation approach in accordance with our lores and customs.

These agreed commissioned scope of works included compliance requirements against the Project's DGR's including Sheet 3 OEH factsheet for sharing sacred knowledge.

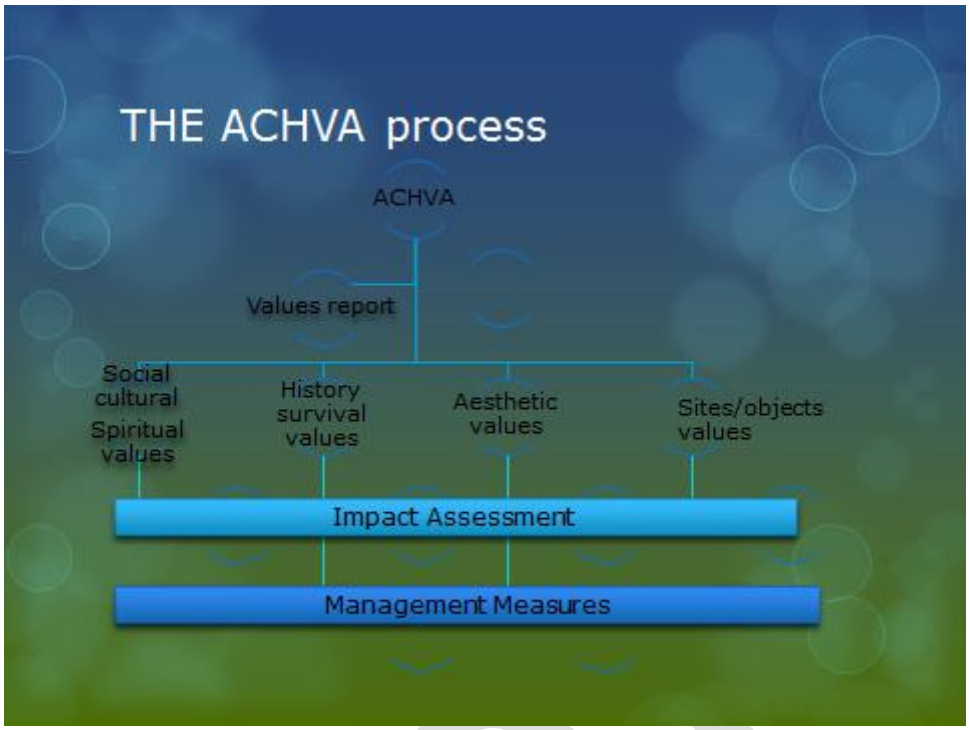
The following flowchart described the key consultation elements considered in the ACHVA consultation program developed and endorsed by the WTC spokespersons Elders and claimant group members. Consultation concentrated on traditional lores and customs and the context of Mount Owen, identifying knowledge holders and ensuring the methodology for approach was understood and agreed by all parties. Over the time of consultation the contributions of families resulted in 106 WTC family members participating in and being consulted in the assessment process.

Disclosure protocols included:

- WTC member agreement to be consulted and contributor copyright protection
- Consultation protocols
- Glencore Disclosure of Wonnarua Traditional ACHVA report terms and conditions statement
- Glencore document control agreement

Draft

Figure 2: The ACHVA process



Source Connect for Effect Pty Ltd (2013)

While Glencore contributed costs towards some of our consultation meetings held during **stage 3** of the consultation program, an extensive number of meetings were self-funded and voluntary. Our voluntary contributions to the report was because of two key elements- the first was that we were able to record our own cultural knowledge and the second because we could have control and confidence in the consultation process and the ultimate management of our information.

The consultation approach included:

- Weekly spokespersons and Elders meetings from September to August 2013- content writing and formats-voluntary
- Project briefing session- Glencore and Connect for Effect Pty Ltd
- 2 x 1.2 day workshops cultural values recording and sharing
- One workshop with 64 participants impact assessment and monument measures workshop
- 1 day workshop historic narrative and oral stories recordings -voluntary
- 5 days and two evening s of oral story filming- voluntary
- 5 Apical ancestor workshops (full days)- Sara Madoo, George Cain, Emily mother of Henry Harry Taggart, Susan Bishop x 3 sessions and Maryann Webster families- voluntary
- Individual interviews- voluntary
- 1 x 2 day weekend workshop elders and spokespersons – voluntary

- 1 full day and evening workshop report values review and briefing to Glencore voluntary
- 1 full day session- elders and spokespersons – management measures and impacts review
- 280 phone calls for the purposes of undertaking telephone interviews and finalisation of values statements
- ½ day non-disclosure review and DVD film review- voluntary
- Voluntary report review (chapter by chapter) comments and clearances- spokespersons and Elders voluntary
- Small family group meetings and discussion and family research and collation of materials x 15
- Walk on Country- initial review (pre briefing and post briefing)
- Walk on Country- mapping exercise
- Walk on Country 2 x filming and oral recording

This broad consultation approach provided our families with a range of opportunities to participate and contribute where we felt we could.

Deliberately blank

In the final week of consultation and report collation and analysis our families were affected by a series of family members passing and for many of us experienced a significant amount of strain to meet timing of reports during this stressful family period. We have provided a draft document to Glencore to inform them of our values and of our expectations regarding the protection and conservation management of our cultural heritage on Glencore Mount Owen property in the context of the proposed project.

We have also provided some recommendations in relation to improved cultural heritage management and consultation approaches to inform assessments. We welcome and opportunity to provide a cultural interpretation of the final draft archaeological assessment once this material from Ozark becomes available

The WTC confirm that our consultation has been extensive and inclusive and in accordance with professional and ethical standards and our culture and lore requirements. The report is compliant to the Projects DGRs subject to final cultural integration of archaeological findings to inform our synthesis of values

Draft

The following statements on the cultural values of the Mount Owen project area, in its holistic cultural context, are made in addition to the statements presented throughout our restricted report. These have been collated over several months of internal WTC discussions and cultural sharing and documenting, and on our eight DVD records.

When consolidating our cultural values statement a number of challenges presented themselves. The first was how to separate our values into the significance categories described by the Burra Charter and OEH guidelines, which separate significance into categories of aesthetic, historic, scientific and social. However, such an approach does not reflect our holistic Aboriginal Wonnarua world view that is underpinned by the interconnectedness of our people and our places. Although these guidelines provide a way of describing cultural significance, the limitations of this approach are also well recognised in literature, given the entangled and overlapping nature of human attachment to place – and in the different approaches of Aboriginal and non-Aboriginal world views. This is reflected in the following examples:

> *"Aboriginal heritage and non-Aboriginal heritage cannot be measured or valued in similar terms" (Zarandona 2012).*
>
> *"It would be absurd, for instance, to try to isolate social significance from historical significance when one of the most important methodologies under the 'social' heading is oral history recording" (Byrne et al 2003:20).*
>
> *"As social value may often be based on a continuity of historical attachment to place, it may be difficult in practice to always distinguish it from historical value. The continuity of associations over time creates shared community perceptions that may be regarded as evidence of its social value. And it is likely that one of the major sources of meaning will be historical events associated with a place. (Johnston 1992:16)*

Deliberately blank

Rather than simply stating that a place is important because it is has cultural heritage because it is old, or because it has specific historic associations, the WTC has identified places as part of their heritage because it is representative of a specific aspect of the community's history, quality of life, or change over time.

In preparing our statement of cultural significance, the WTC also reflects recent research on the understanding of cultural significance, and its dynamic relationships with people and place.

It is well recognised that significance is not intrinsic or 'embodied' in a place and it cannot be considered as an objectively measurable attribute over space and time (see Brown 2008:21; Byrne 2008:614; Sutton 2013 et al:3). As stated by Johnston (1992:iii):

> *"Our surroundings are more than their physical form and their history. Places can be the embodiments of our ideas and ideals. We attach meanings to places - meanings known to individuals and meanings shared by communities".*

Another useful understanding of cultural significance of places is 'place as process', with places as given meaning by people through their continuing interactions; with people perceiving place as having character, identity and 'spirit' (Johnston 1992:10,12).

Draft

The understanding of cultural significance as psychological and social constructs is well established (refer to for example, see Reser and Berntrupperbaumer 2005:142), and the active engagement and genuine consultation is needed with the individuals or collective communities whose values are being assessed in the determination of significance.

An important implication of this discussion is that as cultural significance is essentially meaning given by people to places, these meanings can vary between people given their differing experiences, and that these meanings can also change over time (Sutton et al 2013:3). Cultural significance is therefore not a static 'given' for a place that can be assessed and ranked by a single party (Sutton et al 2013:4). As stated by Byrne et al (2003:22"

> *"Cultural heritage places thus do not have the value spoken of above; their value lies entirely within human culture".*

In assessing cultural significance, the emphasis should therefore be on the fluid and subjective nature of people's connection with place, as stated by Boer and Wiffen (2006):

> *"Significance is a fluid and dynamic concept, referring to things that people today value and that people today wish to pass on to future generations. Assessing significance is therefore a subjective process conducted at a fixed point in time, but consists of 'ever-expanding and all-encompassing set of ideas'."*

Although these are well established concepts, Johnston (1992:4) found that cultural heritage assessment methods generally fail to encompass the deep sense of attachment that people have to place.

Given the importance of people-place relationships in the Aboriginal Wonnarua world view, this failure in cultural heritage assessment is even more profound, which has been discussed in a recent review of Hunter Valley Aboriginal cultural heritage assessment processes by Sutton et al (2013).

This found that in Hunter Valley Environmental Assessments cultural heritage assessments tended to perpetuate concepts that 'value' was embedded in a place and that some are misappropriating the process by asserting that 'value' can be "quantitatively and scientifically measured and ranked by an archaeologist/heritage consultant" (Sutton et al 2013:2). Further, it was argued that archaeologists and their view of the scientific significance of Aboriginal places are still being elevated above a broader understanding of cultural significance and the views of Aboriginal communities (Sutton et al 2013:2); in direct opposition to the very guidelines and policies of OEH and DPI.

Past research has found that the NSW cultural heritage system has 'enshrined' these approaches and given archaeologists a dominance in the process that does not reflect professional guidelines and professional practices (Brown 2008:20-21; Smith 1996:69, Sutton et al 2013:4). This has resulted in what Sutton et al (2013:4) refer to as a form of 'institutional racism', where Hunter Valley cultural heritage assessments reflect unequal power relationships between Aboriginal parties, archaeologists and government; leading to a lack of Aboriginal influence over cultural heritage processes and decision making.

These are ongoing challenges to our ability to influence decisions or to have our cultural values taken seriously in the assessment process, with a historic emphasis on the archaeological values rather that the importance of these features or artefacts in relation to our people.

Draft

In this context, the WTC argue that Aboriginal cultural landscapes cannot be approached primarily as material heritage, but rather must be approached first and foremost in terms of an enduring relationship between culture and place and people that is constituted and sustained through a series of practices, experiences, beliefs and behaviours within a space (spatial cultural considerations).

It is also asserted, in accordance with professional guidelines and practices, that management of cultural heritage places should be based on their cultural significance – being a holistic understanding of the importance of a place to people, and not just the value that an archaeologist ascribes to our cultural heritage, which is only one part of the cultural assessment process.

Our overarching values statement

The WTC make the following overarching statement on the cultural significance values of the Glencore Mount Owen area, in its cultural, social and historical context as provided by WTC spokespersons. A restricted values statement has been provided to Glencore and the regulatory authority to inform the assessment.

"Glencore Mount Owen is part of Wonnaruah Country and as such is of high cultural significance. All Country is part of our lore and customs and we have obligations to care and look after all. There is ample physical evidence of Wonnarua and other Aboriginal people's traditional and historic connection and occupation within the Project area.

Deliberately blank

The Project area and surrounding lands contains places of violence and killings of our people, shown through oral accounts and written histories. The WTC believe the Project area should be treated as a crime scene with a heightened level of vigilance and sensitivity in relation to the approach to conservation management and reconciliation. To discuss the cultural values of Mount Owen Project area cannot be undertaken with a heightened level of concern, pain and emotion.

Deliberately blank

Our ancestors had an intimate land management understanding, all taught and linked through our lores and customs. Much of this knowledge remains within our families. If not for them we would not be able to provide the depth of knowledge provided in our restricted report. We also acknowledge the loss of both our ancestors and the impact of policies, atrocities and racism which has left a legacy and one we fight and struggle with to this day

Just like an ecosystem, our culture considers the interconnectivity and inter-relationship between our lores and customs, our lands and waters and the adaptations which have occurred in order to ensure Wonnarua survival. Glencore Mount Owen is a place which tells a rich story of our ancestors and a painful and disturbing story of our history and survival, It also tells of the collective journeys and sheer resilience and fortitude of our great- great grandparents, grandparents, and our parents and of the continuing journey our generation are undertaking today.

The following sections provide some details of extracts (in part) from the WTC report which the WTC have released for disclosure. A fully detailed restricted report has been provided to the proponent and the regulator and released in accordance with the restrictions release agreement.

Sorry business and burials

Sorry business and burials is a very important part of our culture. We came from our mother earth and our souls depart is very important. The way in which we prepare our loved ones for burial and the way in which we honour our ancestors who have passed is a very important part of our lore and custom.

The Wonnarua history of Wonnaruah Country also known as the modern day Hunter Valley has been demonstrated to extend back at least 20,000 years – or over 600 generations[3]; although our history may extend much further back in time, with burials recorded as archaeological sites in other areas of modern day NSW demonstrating that our state's Aboriginal history extends back at least 40,000 years – or over 1300 generations.

Over this time, countless Wonnarua and other Aboriginal people have been born, lived and died in Wonnaruah Country. The following sections provide a broad understanding of the nature of our ancestor's burials and the treatment of our ancestors' remains in the modern day Hunter Valley over time, and how these may occur in both cultural and archaeological contexts today.

In this context, a range of archaeological management options are outlined for consideration, ranging from area-specific investigation options to broader protocols to guide burial caring practices and management activities in culturally sensitive areas where burials and human remains of our people and other Aboriginal people may occur.

Before European invasion

Before the invasion of Europeans, burial of our people required families and clans to undertake a number of very special ceremonial processes in order to enable our kin who have passed return to the Dreaming.

In our society at the time of European invasion,[4] death was not the end of life but the last ceremony of the present life, and burial rituals occurred to celebrate the transformation of our ancestor back into the Dreaming.

We agree with the following statement:

> The journey was undertaken with the assistance of Ancestral Beings associated with the land over which the soul is directed, and it is was essential that the dead were buried in their own

[3] Based on a generation being approximately 30 years (National Museum of Australia 2011), in accordance with the Macquarie Dictionary definition.

[4] Invasion is described as contact or post contact in Western documentation. Due to the violence and dispossession which has occurred for our people the WTC described this action as invasion of our lands and waters.

country and their spirits properly sung to rest (Berndt 1982:2, Parbury 1986:29-30, Morphy 1995:203).

Including our people, Aboriginal people throughout NSW practiced a wide array of burial practices at the time of European invasion, reflecting the cultural diversity between and within Aboriginal language groups or 'nations'. These spanned the following range of practices (as described in DEC and NSW Police 2006:13,16-18; and DECC 1998:13):

The WTC agree with the following statements by DEC and the NSW Police (2006:13):

> *"Many pre-contact Aboriginal burials were marked by surface grave markers, to mark the burial place and sometimes to signify the status of the deceased. These could include earth mounds, logs or stones placed atop the grave; and in southeast Australia, the carving of trees in the vicinity of the burial also occurred, often with geometric patterns.*
>
> *"Many historic accounts also describe the possessions of the individual being buried with them; such as needles, fish hooks, axe heads, tooth necklaces, spears, possum rugs and pieces of ochre.*
>
> *"The nature of any specific burial ritual, the placement of the grave, the choice of grave goods and other factors reflected local customs, taking into account age, social status and gender".*

Written descriptions of the burial of our people

In Wonnaruah Country, detailed descriptions of Wonnarua burials in the decades following European invasion are rare, but through our oral record passed down through our families and Elders and Loremen we are able to place some of our ancestors' burials. Through a small number of written accounts there is supporting evidence which do describe traditional burial practices were being maintained; and that these generally took the form of internments (burials).

For example, Miller (1887:354) stated of Wonnarua burials that:

> *"The dead were interred in a sitting posture, the grave being covered with logs to prevent wild dogs getting at the corpse".*

Howitt (1904) also described burial practices of our ancestors of the modern day upper Hunter Valley, who he describes as Geawe-gal and Gringai people. Howitt (1904:464) stated that both the Geawe-gal and Gringai people interred the "property of a warrior…. indeed every piece of inanimate property he possessed" with the burial; and that for Gringai burials, everyone "present contributed something, all of which things were placed at the head of the deceased" before the grave was closed.

We agree with Brayshaw's comments that:

> *"The position of the interred body was varied and could be extended or flexed, face down, placed on the side or face up; and the use of bark as burial shroud was widespread" (Brayshaw 1987:86).*

Historical descriptions also document the continued use of some of our burial places well into the second half of the nineteenth century, with some records in places around Singleton and Muswellbrook continuing into the first decade of the twentieth century.

Draft

One example was recorded by a former squatter in Aberdeen in the 1870s at Old Glenegie or Gundy, at the junction of the Page and Isis Rivers. This was described at the time to have consisted of a circle of raised earth '*about 150 yards in circumference'*, and with a figure of a man also made from raised earth '*in a pleasant glen at the foot of one of the highest hills in the neighbourhood'* (Etheridge 1918:85). The description also reported that the *'ground about this place for some considerable distance, are about one hundred and twenty trees marked with tomahawks...on some the marks reach as high as fifteen feet above the ground'* (Macdonald1878:255).

Archaeological Implications

In the vast majority of Australian environments, Aboriginal burials occur only as skeletal material, as soft tissue decays at a relatively rapid rate in both surface and buried contexts (Litster and Wallis 2011:112). Over longer periods of time, skeletal material will also decay in most Australian environments, where only durable non-organic material such as stone will be preserved (DEC and NSW Police 2006:13).

Factors influencing decay of skeletal material and soft tissue are complex, and rates of decay will vary according to the specific environment of each location. Baxter (2004:44) identifies soil pH as one of the key factors effecting preservation – as highly acidic soils will completely destroy bone – but also identifies other factors such as temperature, the proportion of certain elements in bone, pressure on the bone and lack of oxygen. Contexts where bone and other organic materials may be preserved over a period of time include alkaline soils (DEC and NSW Police 2006:13) or waterlogged contexts (Baxter 2004).

Cremation will also aid in long term preservation of skeletal remains, as burning or charring bone changes the structure of the material in such a way that decay rates are slowed (DEC and NSW Police 2006:13).

In 2006, DEC and NSW Police (2006:13) identified that approximately 500 Aboriginal burial places had been recorded in NSW and registered on the AHIMS database; and that these occurred in a wide range of landscape contexts such as (but not limited to) river flats, dunes, interfluves, crests, and also in deposits within rock shelters and on rocky knolls.

Most burials recorded have been found in relatively shallow graves, within 1m to 2m of the ground surface, and there is a high level of association between Aboriginal burials and sandy soils (DEC and NSW Police 2006:13). However, burials have also been recorded in other soil contexts – such as the red clay burials of the Macquarie Marshes and a burial chamber being tunnelled two metres into a hillside around Yass – so other soil profiles cannot be discounted; nor can the possibility that the original landscape and soil profile has been altered since the burial was interred (DEC and NSW Police 2006:14).

In many areas, there is a clear distinction between Aboriginal living places and burial grounds; although individual burials are also known to occur within everyday living areas, such as in shell middens, for example, as in the cremated burials found within an excavated shell midden at Swansea Heads, Lake Macquarie (Dyall 2002).

Aboriginal burials may also contain a range of grave goods, although those of stone or more durable materials are more likely to be found in archaeological contexts.

Draft

They can be found as individual burials, in small groups and extensive cemeteries and are often associated with other types of cultural material (DEC and NSW Police 2006:23).

> "In the above context, Aboriginal remains can be expected to occur in almost any part of the landscape, in both open contexts and close contexts such as rock shelters and in tree hollows". (Deliberately underlined)

Post European Invasion Aboriginal Burials: Continuity and Change

As described above, Wonnarua traditional burial practices were maintained for a time after European contact, with a number of 19th century historical accounts describing a continuation of traditional rituals.

As people increasingly settled on Aboriginal Reserves, in fringe camps and pastoral station camps, burial in European-style graves became more common across NSW.

Through the course of the 19th century Aboriginal people increasingly used wooden coffins. Though the main features of European grave-burial were adopted there were often distinctively Aboriginal features to the burials.

These included the wrapping of the body in bark, the burial of personal possessions with the body, and decoration of the grave surface with shells and stones. For many of our families we still include personal possessions with the burial of our loved ones.

For a long time after 1788 Aboriginal people still wrapped the body of the deceased in bark before burial. Later, the government blanket which had kept a person warm in life was wrapped around their body in death.

Impact on our burial rights

The profound impact that European contact and the ongoing invasion experience is evident on all aspects of Aboriginal life, which extended to our burial rites. As a result burial rights changed and evolved throughout the 19th and 20th centuries – to incorporate new materials and ideas, but often in a way that retained core cultural views and beliefs (DECC 1998:13). This also reflected in the loss of access to traditional lands and burying places as the mosaic of settler farms extended across the landscape (Byrne 2003:74).

Before the establishment of the NSW government reserve system in the 1890s, Aboriginal people lived independently in camps found throughout the state, on pastoral estates, around newly established European towns, and on pockets of land not yet claimed by Europeans in their traditional lands (Byrne and Nugent 2004:56-57). Many of these camps were mobile, with people both choosing to move on and being forced to move on, in response to pressure from townspeople, and to find work and have access to schools (Byrne 2003b:80).

Draft

Over the years, many individual burials or cemeteries were established around these Aboriginal living places, but as pastoral work dried up and the European towns grew, Aboriginal people were moved on and their cemeteries and graves were left behind (DECC 1998:18).

With the establishment of the NSW reserve system in the 1890s, many Aboriginal people were buried on reserve or mission cemeteries; although access to many of these cemeteries was also lost in the 20th century, with reserve lands revoked by the government to make way for farms and expanding towns.

Many Aboriginal people were also buried in or near the formal town cemeteries since their establishment, although until the mid-20th century, Aboriginal people were often refused burial within the cemetery limits (DECC 1998:18); with unmarked Aboriginal graves often occurring just beyond cemetery limits.

Many 19th century Aboriginal burials were grave internments, with people buried lying on their backs in deep graves dug into the ground, reflecting the spread of European practices and Christianity (DECC 1998:11). Many of these graves were unmarked, or marked only with less permanent markers such as white wooden crosses or patterns of shells, stones or glass (DECC 1998:11); or possibly by plants placed to commemorate the dead (NPWS 2003:20).

Records also agree that unmarked graves are burial sites that are difficult to identify on the ground surface, either because they were never marked, or because the *grave markers* have decayed, been removed, or been destroyed. In many cases the original markers on the surface of Aboriginal historic period (post-1788) graves were of an impermanent nature.

Some were marked by wooden crosses, others with patterns of shells or stones. As time passed these often decayed or were scattered and the exact location of the graves became less certain. Sometimes the graves of known individuals have been mapped in the past, but are not visible on the ground surface today.

Other unmarked graves may be visible on the ground, but have no known records stating who was buried there, or when the burial occurred.

Common characteristics of Aboriginal unmarked graves include the following:

They generally have no deliberately laid out border, covering or marker (e.g. headstone

- Many occur in historic cemeteries, such as those on Aboriginal missions and reserves.
- Others occur in the vicinity of Aboriginal off-reserve settlements – for instance, camps on pastoral stations, along historical travelling routes, or fringe camps on the edges of towns.
- Some occur in pre-contact Aboriginal burial grounds.
- They are sometimes found just outside the boundaries of 'formalised' cemeteries where non- Aboriginal people were buried – the boundaries often being defined by wooden, metal, or wire fences. This resulted from municipal authorities refusing to allow Aboriginal people to be buried inside these cemeteries.
- Often, shallow depressions in the ground are found where unmarked graves exist, these depressions resulting from the subsidence of soil placed in the graves following the burial.

Draft

- Sometimes ornamental bushes, such as roses, or flowering bulbs that were originally planted on or around the graves still survive after all other grave markers have disappeared.
- The unmarked graves can occur individually ('lone graves') or in groups.
- Aboriginal and non-Indigenous graves sometimes occur within the same burial ground. (NSW Natural Parks and Wildlife Service's 2003).

The techniques described in the Natural Parks and Wildlife Service's 2003 guide "*Lost but not forgotten"*, are designed to detect Aboriginal burials in European-style graves. Such graves are more or less rectangular, 1 to 2 metres in length, and 0.5 to1.5 metres in depth (for an adult). Most such graves will face to the east or west. While it is noted that many Christian graves are located in an east to west position, given the shared history on Country, the potential that a grave site is not of Aboriginal origin cannot be discounted.

Traditional forms of Aboriginal burial belonging to the last 217 years will be very difficult to identify using the *non-intrusive* techniques described in the NPWS guide.

Archaeological investigations offer the best opportunity for the discovery of these traditional burial types, and this necessitates some form of below ground intrusion (e.g. excavation), increasing the risk of disturbance and exposure to the burial. We appreciate that many Aboriginal communities will be reluctant or unwilling to permit excavation in areas where graves are thought to be present

Archaeological Implications

Many post-invasion Aboriginal burials occur in unmarked graves, within or on the fringes of town cemeteries, in reserve and mission cemeteries, and associated with past living places located on farms or around independent camping places. They are also located near Travelling stock routes and Songline pathways, some near gravesites within homesteads where our families were working or enslaved.

Unmarked graves are difficult to identify on the ground surface, either because they were never marked, or because the grave markers have decayed, been removed, or been destroyed (NPWS 2003:4). However, subtle indications such as shallow depressions, placement of ornamental plants or scattered grave markers may occur (NPWS 2003:4-5).

Graves could also be identified by controlled excavation, to reveal the grave cuts – as graves were often backfilled with a different soil (or original soil mixed with topsoil, rocks, plants or other material), which is distinct from the natural soil. Such grave cuts are often 1 to 2 metres in length, and 0.5 to1.5 metres in depth (for an adult), and will face to the east or west (NPWS 2003:25).

The presence of unidentified graves within the Mount Owen Project area has been identified by the non-Aboriginal historical assessment for the Project by Umwelt (2013), who describe the following:

Potential grave site	Falbrook Road, Falbrook.	0324035
	Within Project area– outside and immediately adjacent to south east boundary of north pit extension	6410749

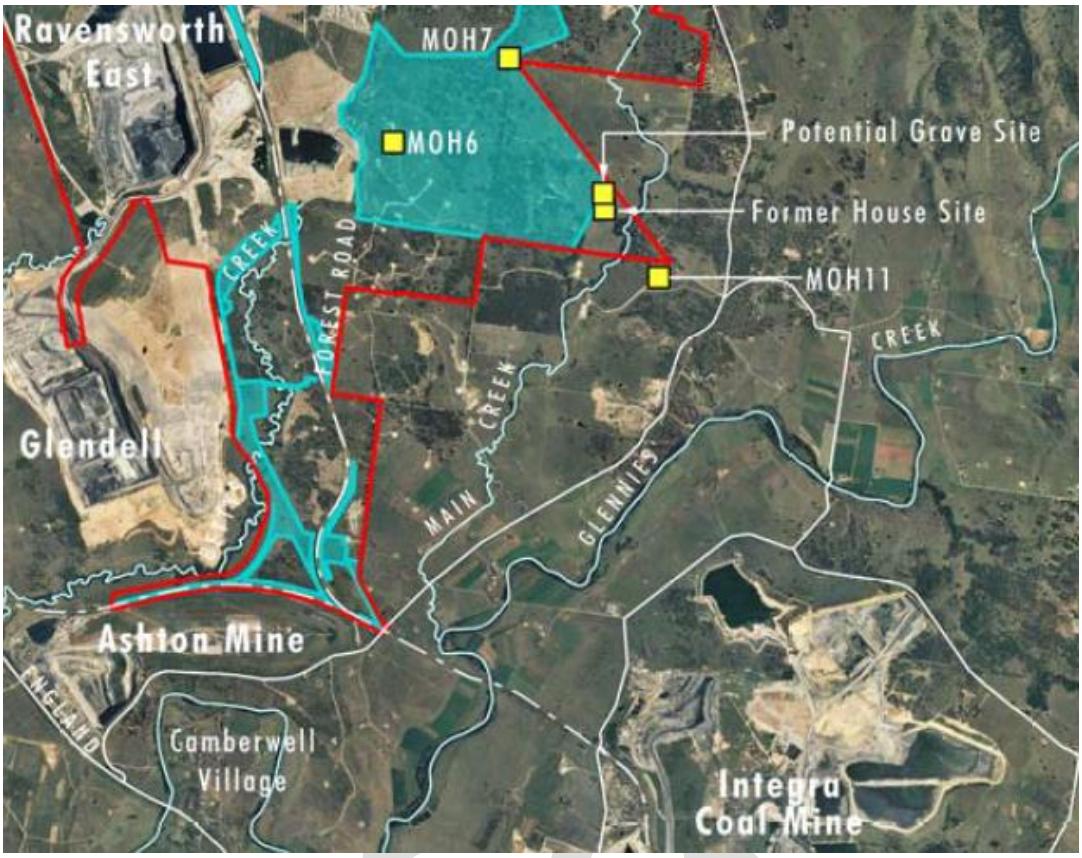
Umwelt (2013a) in Section 6.3.4 state that:

> *"The potential grave and former house site is within the Project area and immediately adjacent to (outside) the proposed disturbance area of the North Pit. The potential grave site comprises a small alignment of stones in the proximity of a remnant brick chimney and associated concrete slab; likely the remains of an early 20th century farmstead or house site. Both the potential grave site and brick chimney are located within Lot 922 DP 844642 (69 Falbrook Road, Falbrook). Apart from than the extant brick chimney and associated plantings (Oleander, citrus and peach trees) and a concrete slab (a 3 by 3 metre L-shaped slab located between the potential grave site and chimney) there is no other evidence located on the surface.*
>
> *The potential grave site comprises a 2.5 metre by 0.7 metre alignment of stones orientated east to west. The alignment was originally constructed with a flat base layer of stones with a large stone (possibly a headstone) at the western end and a second course of stones forming a single row or 'spine' along the centre of the base layer of stones. A number of the stones have been previously displaced creating the impression of a less planned/more irregular alignment today. Archaeological investigative works and consultation with the Heritage Branch, OEH in relation to the potential grave site are being undertaken concurrently with the preparation of this report".*

Figure 4: Photograph of potential unmarked grave, from Umwelt (2013a)



Figure 5: Map of potential unmarked grave site, from Umwelt (2013a)



The Umwelt Heritage Report (2013a) recommends the following approach to addressing the Potential grave and former house site:

> *"If present, skeletal remains within the proposed Project area are likely to have strong contemporary social links. The remains would have significance to people living in the area whose ancestor may be buried there.*
>
> *As such, with the exception of the potential for skeletal remains to be found, the potential historical archaeological resource of the proposed Project area does not strongly meet this criterion based on available information.*
>
> *However, an archaeological site (for example the potential grave site and the Ravensworth Village area) can take on additional social values as a result of community interest in archaeological excavations and any remains uncovered".*
>
> *The potential archaeological resource from Ravensworth Village and the potential grave site may provide physical evidence that could be used to supplement and test what is known about the Upper Hunter region and its history from other sites.*
>
> *If intact, the archaeological resource may provide an opportunity to investigate the settlement and use of the area from the late nineteenth century and associations with the extension of the rail line north and the Ravensworth Estate. If present, intact artefact bearing deposits (occupation/underfloor deposits, cesspits/privies, bottle dumps and other*

sub-surface features), could provide insight into aspects of a small village and family commercial enterprise in late 19th and early 20th centuries not available from other similar sites.

The opportunity to study historic skeletal material in an Australian context is relatively rare. The discovery of European burials outside cemetery site is a rare occurrence. If present, intact human skeletal material could provide information not available from any other site, for example basic forensic and anthropological information which could include sex, age, race, gender cause of death and palaeopathology.

The potential grave and former house site are within the Project area and immediately outside the proposed Project disturbance boundary (refer to ***Figure 6.1****). As a result of their proximity to the boundary of the proposed North Pit (the potential grave is less than 10 metres and the former house site 80 metres outside the proposed disturbance area) these sites are likely to be disturbed/removed as a result of the Project. A program of archaeological investigative works are currently being undertaken to further understand the exact nature of the potential grave site and identify the potential implications for the Mount Owen Project expansion".*

The WTC holds concerns about this approach and will be presenting these views to Glencore Mount Owen as an integral part of our cultural values assessment.

Deliberately blank

The entire potential burial discussion detailed in the Umwelt Historic report only raises questions for the WTC claimant group. These include:

Question One – although the described site is near the disturbance boundary, it is also assessed as being outside of it – cannot measures be put in place to ensure that locality is not disturbed? i.e., fencing of this part of the disturbance boundary?

Note that when companies seek Department of Planning and Infrastructure (DOP&I) approval, it is on the basis of a defined disturbance boundary – that they are not allowed to go beyond. The WTC seeks clarity whether Glencore are seeking to disturb this location or not – Umwelt report is ambiguous

Question Two – where there is one potential unmarked grave, there could be others – has there been broader assessment?

We are concerned that Mount Owen has not consulted the WTC spokespersons and Elders and other Wonnarua and Aboriginal people in relation to the investigation of the unmarked grave, especially as this issue has been subject to several months of discussion between Glencore, archaeologists and the Heritage Branch; as described by Umwelt (2013) below:

"An exception from the need for an excavation permit, in accordance with Section 139(4) of the Heritage Act to undertake minor archaeological investigative works at the potential grave site was endorsed by the Heritage Branch, OEH on 26 November 2012

Minor archaeological investigation works at the potential grave site were undertaken in accordance with the endorsed exception on 6 December 2012. The investigative works identified that the stone alignment has the appearance of a formal grave memorial placed on top of a rectilinear cut (likely to be a grave cut)

An application for an Excavation Permit under Section 140 of the Heritage Act to permit archaeological works at the potential grave and former house site to ascertain whether or not there are any human skeletal or other archaeological remains present at the site is being prepared concurrently with the preparation of this report.

Archaeological investigative works and consultation with the Heritage Branch, OEH in relation to the potential grave and former house site are being undertaken concurrently with the preparation of this Historic Heritage Assessment report. The future management of this site will depend on the outcomes of these ongoing investigative works."

In addition to this concern, the WTC note that Glencore Mount Owen refer to discussions and approval for works by OEH, yet again there has been no discussion with the WTC spokespersons or Elders or other parties that we are aware of in relation to this matter.

Question three- Why has OEH been involved if there was not some consideration that the potential burial may be of an Aboriginal person, as heritage matters are the responsibilities of a different department WTC spokespersons on behalf of the WTC claimant group

The WTC also hold ongoing concerns relating to the suggested approach by Umwelt (2012) to address potential human remains without reference to the seeking Traditional Owner and knowledge holder comment and advice.

Our concerns relate specifically to the need for our Elders and knowledge holders to visits site and to provide cultural advice in relation to approach in the scenario that a potential burial is Aboriginal. Particular concern relates to the following recommended actions:

"In the event that unexpected archaeological remains or potential heritage items (including a burial site or human skeletal material) not identified as part of this report are discovered during the Project all works in the immediate area should cease, the remains and potential impacts should be assessed by a qualified archaeologist or heritage consultant and, if necessary, the Heritage Branch, OEH notified in accordance with Section 146 of the Heritage Act 1977 (NSW). In the case of a burial site or human skeletal material being exposed the local police, OEH and the Heritage Branch should be contacted and the remains inspected by a physical or forensic anthropologist to make a determination of ancestry. The management

of the remains would then be determined through liaison with the appropriate stakeholders (New South Wales Police Force, forensic anthropologist, OEH, Heritage Branch, registered Aboriginal parties etc.) and in accordance with the Public Health Act 1991" (Umwelt 2013).

Deliberately blank

The precautionary principle should apply refer to section x management measures. *The WTC spokespersons on behalf of the WTC claimant group*

Ancestral material evidence is important to us

The WTC simply cannot discuss our values relating to tangible pre-contact/ invasion material culture without making the following statement in relation to the current archaeological records and the approach to archaeological assessment and research being undertaken by many archaeologists relating to our Country and our cultural sites and objects.

For too long archaeology has dominated the assessment and decision making processes.- it smacks of imperialism or dominant culture again determining the cultural representativeness and research value relating to our ancestral footprint…. and our survival.

We agree with the statement:

> *Sullivan (2004:37) points out that some members of the Aboriginal community argue that the application of the Burra Charter to their heritage places is 'a form of cultural imperialism, or at least a form of post-colonial impertinence or insensitivity and an attempt to co-opt Aboriginal heritage as part of the construction of an Australian national identity'.*

Even more so is the complete silence or muting of our shared and individual post invasion history. The WTC undertook as review of the historical records of archaeologists and historians who have informed previous assessment processes which subsequently lead to approvals for mines to destroy our culture and heritage. The review from a cultural perspective is nothing short of ….Disturbing. Moral and ethical practices are challenged in this context. Also the absence of understanding or integrating cultural knowledge and values has resulted in a 'skewered and at times inaccurate record of our heritage and its meanings.

"What is striking is that in the post invasion period we our great-great grandparents and parents are almost obliterated in the historic account unless referred to in the derogatory sense…this just continues to feed the myth of our invisibility. We have survived. Our culture is strong….and we are not going anywhere….

The most profoundly positive aspect of this assessment for the Mount Owen Project area is the ability to document our voices, our values, our history and our connections in this report. This has really provided us with the cultural safety to discuss in detail our cultural values and concerns". *The WTC combined statement*

"We ask that the comments on archaeology are not misinterpreted ….the archaeological record is important to us if done well, as it has the potential to reveal many aspects of our ancestors' life (pre-invasion historic and more recent shared history) and how this changed for them over time". *The WTC spokespersons on behalf for the WTC claimant group*

When reviewing the archaeological biodiversity and historic documentation the WTC make the following points:

I. Archaeological research is not achieving a great understanding of Aboriginal history (the histories and meanings of individual places in local/regional/cultural context) – despite the vast amount of investigation being undertaken in the Hunter Valley.

II. Aboriginal sites are being assessed for their scientific significance in the absence of this information, which undermines the entire assessment and management process.

III. Historic documentation fails to record or recognise the shared historic context and the role of Aboriginal people in the post invasion experience. It also fails to consider and protect post contact (Western perspective) post invasion (Aboriginal perspective) resource use and adaptation and the location of our potential burials and places of importance.

IV. Biodiversity research fails to consider the cultural and archaeological values of Wonnarua people inherent in the landscape and our customary obligations to care for Country and our resources. Biodiversity planning should not be in conflict with cultural and archaeological values, yet there is a complete absence of consideration of these important cultural and social values.

Draft

We view the approach to date as fundamentally flawed as the application of assessment criteria to determine significance has tended to be poorly understood, and appears to be entrenched into formulaic approaches. The current Mount Owen assessment appears to perpetuate this approach. Assessment and research questions appear to rarely apply creative ways to apply archaeological research to profile our ancestors and their unique ways of life.

When reviewing these documents (Ozark preliminary documentation, the Umwelt Historic reporting and biodiversity reports as well as past archaeological and environmental assessments) the current approach has failed to draw on, or engage with, collaborating with the WTC and other knowledge holders to develop possible scenarios and then undertaking research in order to test these assumptions or possibilities. Instead the reports just seem to contain endless lists of technical jargon and data which describes numbers of artefacts and their individual values rather than their contribution to telling a regional or more holistic story of our people's history, including their movements and landscape uses and interactions.

We simply cannot understand how the current archaeological assessment process is perpetuated given that there have been limited gains from past archaeological assessment with regard to clarifying or explaining our ancestors' human past.

Mount Owen archaeological footprint

Sources of information

Current and detailed information on the archaeology of the Mt Owen complex will be included in the archaeological assessment currently being prepared by Ozark for the Project – the information included below has been sourced from the following documents:

- Historic Heritage and Aboriginal Archaeological Constraints Analysis for Mt Owen Operations (Umwelt 2011)
- Overview of Aboriginal Archaeological Features within the Mt Owen Complex (Umwelt 2012a)
- Four salvage reports for past salvage along Bettys Creek for past Mt Owen approvals, being Umwelt (2012a,2012b, 2012c and 2013b):

Recorded Archaeological Sites

Umwelt (2011) undertook a search of the AHIMS database in March 2011 for recorded Aboriginal sites and places within the Mt Owen Complex and surrounding lands. This identified that a total of 977 sites have been recorded and reported to OEH, being the following site types: (from Umwelt 2011:4).

"These records confirm our peoples continuing use and seasonal occupation of the area". *WTC spokespersons on behalf of the claimant group*

Table 1 AHIMS database March 2011

Artefact Scatter	**686**
Isolated Find	263
PAD/Artefact Scatter	11
Scarred Tree	4
PAD	3
Stone Arrangement	2
Art (Engraving Site)	1
Quarry/PAD/Artefact Scatter	1
Scarred Tree/Artefact Scatter	1
Grinding Groove	1
Grinding Groove/Artefact Scatter	2
Grinding Groove/Artefact Scatter/Scarred Tree	1

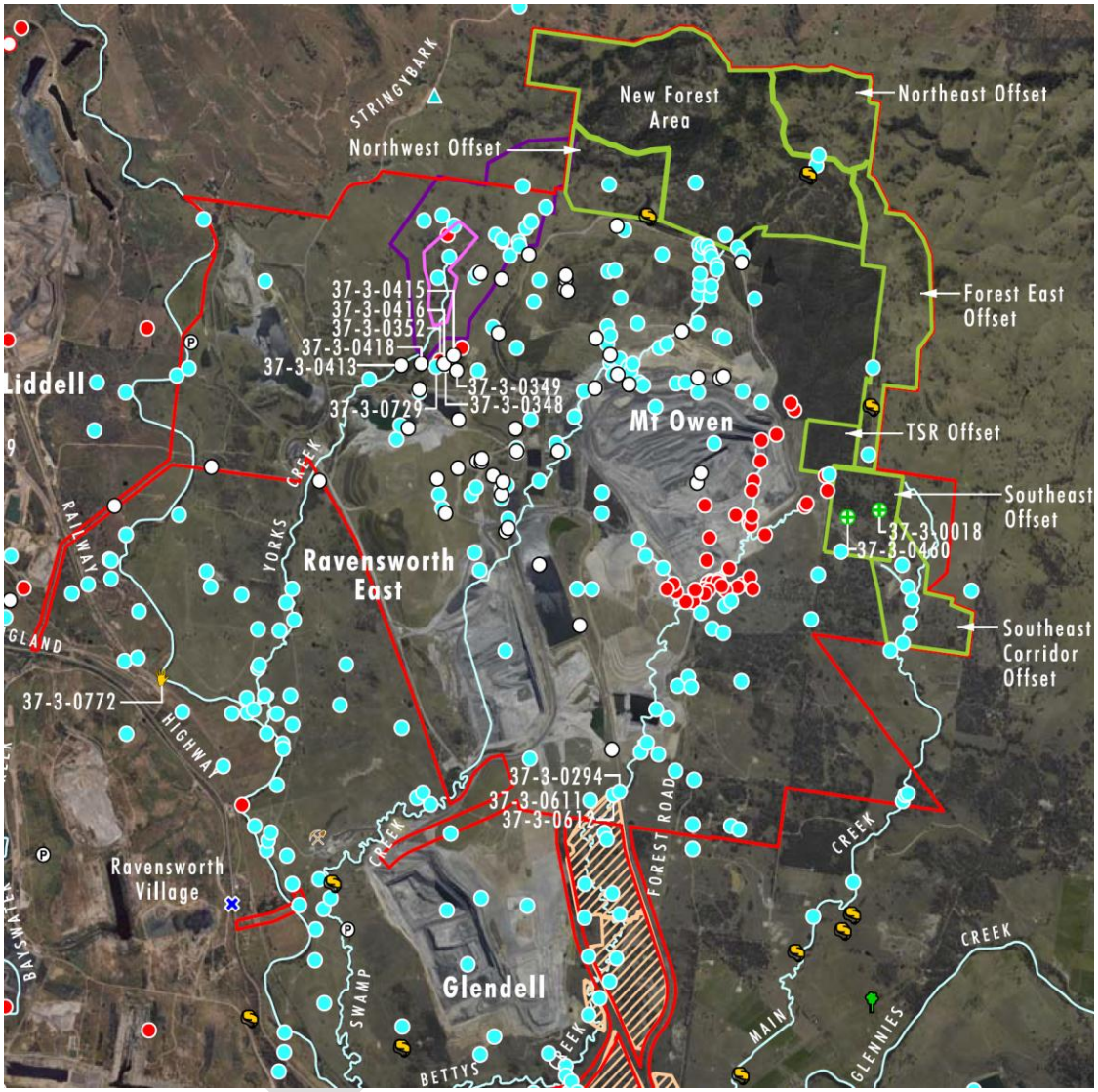
In addition to these sites a massacre site has also been identified, recorded and reported to OEH,

Umwelt (2011:4.7) identify that of these recorded sites:

- 190 sites have been salvaged as part of past development approvals
- 151 sites are still listed as valid but have Part 3A approval, and will be/have been salvaged

- remaining 636 sites are valid

Figure 6 Aboriginal Archaeological Sites Registered on the AHIMS Database within and surrounding the Mount Owen Project area (Xstrata Mt Owen 2012)



Closer consideration of the historic, archaeological findings is detailed in the following section.

Past Excavation along Betty's Creek and Archaeological Interpretation

Between 2003 and 2005, there were four excavation programs along Bettys Creek in the Mt Owen operations area ahead of mining impacts, which are summarised below

Table 2: Key Information, Bettys Creek Salvage Reports

	Part I, Mt Owen Extension	Part II, Mt Owen West Dump	Part III, Mt Owens Operations	Part IV, Glendell Mine
Author	Umwelt 2012a	Umwelt 2012b	Umwelt 2012c	Umwelt 2013b
AHIP	#1762, November 2003	#2131, February 2005	#2267, August 2005	#2267, August 2005
Fieldwork dates	December 2003 to February 2004	March 2005	September 2005	
Surface collection	Surface collection at 21 sites	Surface collection at 9 sites (1 partially)	Surface collection at 23 sites	Surface collection at 36 sites
	1151 artefacts collected	273 artefacts collected	292 artefacts collected	829 artefacts collected
Manual excavation	Manual excavation at 5 sites	*NA*	Manual and mechanical excavation at 3 sites	Manual excavation at 3 sites
	5999 artefacts salvaged		913 artefacts salvaged	1707 artefacts salvaged
Grader scrapes	Grader scraping program	Grader scrapes at 2 sites		Grader scraping program
	1154 artefacts salvaged	112 artefacts salvaged		177 artefacts salvaged
Total Artefacts Recovered	8304	669	1205	2713

Source: Umwelt (Umwelt (2012a,2012b, 2012c and 2013b)

Umwelt (2012a:5) considered the results of excavation along Betty's Creek, and presented the following interpretation of the Aboriginal history of the area It is noted that the interpretation provided by Unwelt is not necessarily an agreed cultural and lifeways interpretation of the area as described by the WTC in the restricted WTC report.

> "What the overall evidence accumulated does show is that very small groups of Aboriginal people hunted and gathered across the whole of the Mount Owen Extension Area over an extended period of time.

They camped on some occasions near the swamps in the Excavation 1 and 3 areas and in the areas where the tributary systems entered the main channel of Bettys Creek.

They also had small camps along the main channel of Bettys Creek but these were much smaller and indicated even briefer visits by small groups of people.

The main camping location was in the vicinity of the Excavation 5 area and beside a large swamp (now drained). In this area small groups of Aboriginal people appeared to have stayed for longer periods of time - but even these visits would have been in terms of days and not weeks.

They used plant foods from the swamps and worked hardwoods and softwoods available locally. They made composite hunting tools and butchered animals, most likely macropods.

Visitation to this area extended over at least 3000 years, appears to have been sporadic and seems to have ended abruptly when Europeans settled the area."

In the depth of Aboriginal history within the Betty's Creek excavation areas, Umwelt (2012a:3,) described the following:

- It was only possible to obtain one radiocarbon date due to the lack of dateable evidence - a date of 3077±40BP was obtained from Excavation 3. The date was relative in nature as it belonged to a large piece of burnt wood that was associated with artefacts both above and below it. Thus the artefacts above it must be dated to later than 3077±40BP and those below it to earlier. How much earlier or later is unknown
- The only other dating evidence came from the location of backed artefacts within the Mount Owen Extension Area assemblage. This brackets these particular artefacts to between 7000BP and 1500BP and most likely between 3500BP and 1500BP as this is the era of greatest backed artefact manufacture (Robertson, Attenbrow and Hiscock 2009) and sits comfortably within the timeframe suggested by the radiocarbon date.
- There were no artefacts located within the Mount Owen Extension Area assemblage manufactured from modern materials such as glass which was thought to indicate that access to this area by Aboriginal people was quickly prevented after European settlement

Umwelt (2012a, 2012b, 2012c and 2012d) also made a series of observations about the lands of the Betty's Creek area, and presented a series of interpretations about the Aboriginal history of the area, as summarised below:

- Water would have been available year round from the three swamps with less reliable water available in chains of ponds in the main channel of Bettys Creek and its tributaries. Larger pools that were semi-permanent were likely at the tributary confluences
- The use of soft starchy plant foods suggests that Aboriginal people were using at least the area related to the former swamp in the Excavation 5/BCB area in the late spring and summer
- The location of the bulk of the artefacts in Excavation 5 in areas shaded by the trees from summertime heat suggests visits during the warmer months to this particular area

- Use of the remainder of the Mount Owen Extension Area at other times of the year cannot be discounted (Umwelt 2012b)
- Spur crest and the upper and midslopes of the spurs were generally only being used for hunting and gathering activities
- Lower slopes and footslopes associated with the tributaries draining the spur slopes indicated low levels of occupation
- Overlapping low levels of occupation at creek confluences and former swamp – higher artefact numbers and densities, suggesting occupation that did overlap spatially and most likely temporally
- Bettys Creek floodplain/terrace had widely spaced locations where activities such as knapping were taking place
- Areas near former swamps had the highest artefact numbers and artefact densities. However, even these areas were assessed as reflecting only low levels of occupation by small groups of people over an extended period of time
- The area of Excavation 5 to the north of the former swamp and the Bettys Creek B area BCB locale reflected the most intense area of Aboriginal occupation
- Evidence for stone knapping was limited to small amounts of silcrete being knapped on the eastern bank of Bettys Creek and small amounts of mudstone being announced on the Western bank of Bettys Creek
- A small number of grindstone's located in the Mt Owen Extension Area (West Dump area) suggesting different patterns of landscape use

> "It is offensive to Wonnarua people that our Country is described as a West Dumps area-
>
> Deliberately blank
>
> *The WTC on behalf of the WTC claimant group*

- The most intense area of occupation within the Mt Owen Extension area and West Dump area was the area of Excavation 5 to the north of a former swamp and the BCB area. This occupation extended around the margins of the swamp and to the east and south as reflected by surface collections. This was most likely the main base camp for most hunting and gathering activities in the Mt Owen Extension and West Dump area
- Site BCB-N: working of soft woods, soft starchy materials grass and possibly even the cutting of reeds. These are activities that would be expected in relation to the use of resources from the nearby swamp. The best time of the year to use swamp resources related to soft starchy foods such as the bulbs of water ribbons and the tubers of the bulrush would be in late spring and early to mid-summer. One artefact was noted to have residue that may have been blood and related to the processing of meat.

- Site BCA - Bettys Creek A area: evidence of the working of hardwoods.
- Bettys Creek main channel (eastern side) and floodplain: evidence of butchery.
- Petrified wood for artefact manufacture was also available locally, however, did not seem to have been used
- Silcrete, mudstone, chert, petrified wood, volcanic, quartz, quartzite, silicified sandstone and chalcedony were being obtained from the gravel beds of the Hunter River approximately 9.5 kilometres to the south
- Tuff which is ignimbritic in nature (volcanic) was most likely sourced from Bowmans Creek approximately 5.5 kilometres to the south
- Porcellanite was being sourced from outcrops somewhere in the north, most probably in the Muswellbrook area where it is much more common in assemblages. However, it is also possible that its source was in the Drayton Mine area approximately 15 kilometres to the north where the geology is suitable
- It is noted that the acidic nature of the soil and the wetting and drying of the soil profile would not be conducive to the preservation of all material. This is supported by the fact that no bones were recovered from any excavation area. Whilst no burials were located this may be due to poor preservation

Comments on archaeological potential

Past investigations of the archaeological potential of the Mount Owen area has found that with the exception of the Chain of Ponds Creek which does have some floodplain development, only Bowmans Creek has a well-defined terrace sequence; with up to three terrace surfaces found along the creek (Groundtruth 2002:11, Umwelt 2012a:3).

The drainage depressions and second and third order drainage lines within the Mt Owen Complex have all been adversely affected to varying degrees by gully erosion. In some areas, erosion has formed gullies up to 2 metres deep. Gully erosion is a severe form of land degradation initiated by European land-use practices. (Umwelt 2012a:3).

Consequently, there has been extensive downslope and downstream movement of topsoil (and any Aboriginal artefacts it may have contained) throughout the Mt Owen Complex. (Umwelt 2012a:3).

Archaeological knowledge of the Hunter Valley, and its limitations

The 2004 regional study of the Hunter Valley (ERM 2004) reported that a total of 3586 sites had been registered with OEH at that time, and that the vast majority of these – 2641 – were found in the lowlands of the Valley. These sites included:

Table 3: Recorded archaeological sites in 2004

Site Type	No. In the Central Lowlands	Total No.
Art	5	129
Artefacts	2576	3309
Burial	4	13
Grinding groove	14	44
Mound	2	8
Other	2	7
Quarry	5	Nine
Scarred tree	28	46
Stone arrangement		12
Ceremonial ring	4	7
Carved tree	1	2
Rock shelter	(8)	(386)
Total No.	**2641**	**3586**

The 2004 regional study of the Hunter Valley (ERM 2004:72-73) found:

> *"The upper Hunter region is perhaps one of the most intensively archaeological study regions in Australia. Most studies have been components of larger environmental impact assessment for proposed development associated with coalmining in the Central Lowlands. Consequently the archaeological resource of the Central Lowlands is well known, at least in terms of its constituent parts and occurring in various parts of the landscape.*
>
> *The interpretation of the resource is less advanced.*
>
> *….we have argued that despite a considerable amount of archaeological work relatively little headway has been made in understanding the archaeological resource. There are two main reasons for this. The first reason is that most studies have focussed on the Central Lowlands and of these most have focussed on artefacts scatters found on and within the duplex soils near or along creek lines. …… The second reason is that there has been a paucity of research based programs of study".*

From the WTC perspective archaeological evidence is a highly valued footprint of our ancestors as it consists of the physical remains left behind after our people have been.

Deliberately blank

What we believe is a shame is that given that there has been many archaeological surveys and salvages undertaken over a number of years over the Mount Owen and related mines in the area; very little has really been understood in terms of the archaeological and cultural interpretation and use of these materials, nor has opportunity been afforded to our Elders and our people to record our cultural, historic and aesthetic values during many past heritage assessments. The WTC spokespersons on behalf of the WTC claimant group

Draft

The methodology for undertaking archaeological survey programs to inform the historical record has largely been flawed- this approach is not the act of individual cowboy archaeologists, but is instead perceived by the WTC's an industry practice sustained by government agencies who are approving work that does not reflect the principles outlined in their own guidelines (although minimum steps are complied with) to investigate mining impacts as part of the approval processes , which will destroy vast tracks of our traditional lands and waters and fails to put into context the importance or the parts these samples of archaeological evidence provide to telling a much larger picture. The WTC on behalf of the WTC claimant group.

The site by site assessment approach of archaeological investigation is then compounded by the fragmented approach to integrating cultural values assessment of the lands and waters of our people. The focus becomes assessing one cultural site or one artefact scatter of evidence of our ancestors rather than understanding the Aboriginal history of the regional and localised landscape and what this means.

The almost total focus of the archaeological assessment process on pre-contact archaeology is also serious flaws which has done a great dis-service to our people, where the conversations become dominated by how many artefact scatters are found, almost with the surreal feeling of a treasure hunt. The approach should have more purpose. What have the information told us over time what does it indicate and how many generations of Wonnarua and other Aboriginal people have walked and lived on the land, spanning all of our history.

It is the view of the Wonnarua Traditional Custodians that consideration of post contact archaeology in the assessment process has been poor, and in many cases non-existent, resulting in the further making of our people invisible in the more recent landscape and further diminishing the importance of our lands and waters to our people and our traditional and contemporary cultural values. This approach also goes a long way to contributing to hiding the atrocities against our people.

It also goes a long way at ignoring and devaluing the environmental and social changes within our people and the relationship and way in which we used and currently use and values land. In other words the assessment of sites and recording of scatters within a narrow project impact area without the integration of any understanding of the significance of these sites and their culturally interpretive meanings are highly problematic". *The WTC on behalf of the WTC claimant group*

In reviewing past assessments and also the current assessment process, the WTC finds that cultural knowledge is not being integrated with western science. We agree with the following statements

*"The major current use of heritage registers is by consultant archaeologists and/or 'developers' to obtain lists and distribution maps of Aboriginal sites/features for a specific project area/locale. Where previously recorded sites occur within a study/ development area, the site/feature record is examined for details of setting or context, material evidence and Aboriginal associations (who is/are the knowledge holders?). (*Brown 2008)

*These data, along with information contained in related reports, are used to develop predictive models to identify the locations of tangible heritage items. Timely and specific research questions and issues around meaningfully determining representativeness (complicated by a lack of cumulative impact data) are rarely identified or generated in this process. This is in spite of the need for such considerations in order to assess archaeological significance accurately. (*Brown 2008)

*Increasingly, predictive modelling is being used to meet conservation management goals in development-driven contexts, though the goals are rarely made explicit (for an exception see Ridges 2004). The outputs are generally descriptive (types of site, numbers, distribution, environmental context and condition), and research potential and representativeness are rarely addressed or integrated into a broader significance assessment framework" (*Brown 2008)

Draft

Threats to our culture and heritage

In this section, the WTC provides broad comment on the threats to our culture, our heritage, our people and our lore and customs resulting from the continued transformation of our traditional lands and waters. Only in this holistic cultural context can the planned expansion of mining at Mt Owen to be understood and responded to.

Detailed WTC comments on the specific threats to cultural places and values as a result of the planned Mt Owen expansion are found in the restricted WTC ACHVA, access to which has only been provided to certain Glencore personal, the Office of Environment and Heritage and the Department of Planning and Infrastructure.

This summary of our ACHVA report therefore only includes statements disclosed by the WTC for inclusion in the Mt Owen Environmental Assessment, but it does not provide a full understanding of all WTC views on mining proposal as given to Glencore and government regulators.

Wonnarua lands of the NSW Hunter Valley have experienced the most intense mining activity in the State, and Wonnarua people have found that we have very little influence in the decisions made by proponents and governments in relation to development and mining approvals –process and outcomes disempowering

Cumulative impacts – the regional transformation of our cultural landscape

Wonnarua lands of the NSW Hunter Valley have experienced the most intense mining activity in the State, and Wonnarua people have found that we have very little influence in the decisions made by proponents and governments in relation to development and mining approvals. The experience to date has mostly been a disempowering one. We agree with the following statement.

> *"Owing to their minority status and limited political power, Indigenous views about development form a subordinate discourse that has great difficulty being heard" (Altman 2009:43).*

We also identify that as the traditional owners of the Hunter Valley, our perspective on mining and development differs from that of the broader community. We agree with the following quotations:

> *"Indigenous views on development can be very different from mainstream notions" (Altman 2009:43)*
>
> *"Indigenous aspirations for engagements with mining companies are highly variable, even for traditional owner groups and other Indigenous interests in mine hinterlands. It is not surprising to have a diversity of views ranging from pragmatic acquiescence to mainstream views of development, to total opposition based on fundamental and at times culturally-based opposition to mining, unavoidable environmental damage, and the possible desecration of sacred sites" (Altman 2009:29).*

While mining over the years have been confronted by a number of diverse aspirations amongst the Aboriginal community, the WTC have declared a position which is primarily opposed to the destruction of our culture and heritage and this is an overwhelming impact to the Hunter Valley from mining and other development – which has resulted in greater loss of lands and waterways than in other regions, and loss of cultural heritage places. The WTC assert that our lands and waters of the Wonnarua people are more intensely and cumulatively impacted, than anywhere else in Australia.

Understanding cumulative impacts

Cumulative impact assessment involves identifying, analysing and assessing all past and likely to occur effects on the environment from an activity, considering the range of environmental, social, cultural and economic issues associated with development (DUAP 1997, Franks 2013:15). These can include activities which are, as described by DUAP (1997:84):

- time crowded – cumulative effects that occur because the individual impacts are so close in time that the effects of one are not dissipated before the next one occurs;
- space crowded - cumulative effects that occur when individual impacts are so close in space that their effects overlap;
- synergistic – different types of impact interact to produce an effect which is greater or different than the sum of the separate effects; and
- nibbling – cumulative effects that occur as the result of repetitive, often minor impacts.

Cumulative impacts within the mining industry are distinguished from other impacts because they cannot be properly understood simply by focussing on the activities of individual mines and because the strategies for managing them often require collaborative action by industry within a region (Franks et al 2010:46).

Assessing cumulative impacts is intended to provide insights, and focus industry, community and government attention on key issues, and proactively address these. However, not all impacts are predictable, and cumulative impact assessments need to be able to respond to environmental, social, cultural or economic change; and address both the intended and unintended consequences of mining activity. Impact assessment should therefore be approached as an iterative process, rather than a one-off activity; and should be identified and assessed across the lifecycle of the mining project including mine closure and rehabilitation (Franks et al 2010:14-15).

Impact assessment and management consist of a number of distinct, yet iterative, phases, as is illustrated in the below figure from Franks et al (2010:15).

Figure 7: Ongoing cumulative impact assessment phases



Studies such as Kennett (1999) and Franks et al (2010) have found that insufficient treatment of cumulative impacts can also be a target for litigation, as a cautionary note for the resource extraction industry.

Advice from NSW government also emphasises the need to the cumulative impacts of various projects, land uses and activities within a region, instead of assessing impacts on a project by project basis (see DUAP 1997:1).

In the Hunter Valley, reference to cumulative impacts is usually in the context of environmental and amenity impacts such as dust, water quality, noise, vibration, greenhouse gases, biodiversity, health, and scenic amenity (Franks et al 2008:5).

In relation to Aboriginal cultural heritage, cumulative impact assessment needs to consider both the loss of any material culture – the archaeological sites that provide a unique and irreplaceable source of information on the past – as well as effects on the cultural significance of both tangible and intangible cultural heritage to modern day communities (OEH 2011:13; Connect for Effect 2013).

The importance of understanding the cumulative impacts of mining on the long term social and psychological wellbeing of Aboriginal communities has also been identified; for example see Franks et al (2008:5) and Sutton et al (2013:67). This study also identifies the need to better understand the cumulative loss of Aboriginal archaeological sites in the Hunter Region as part of the Environmental Assessment process, stating:

"….it is crucial to attempt an assessment of such impacts, particularly in regions such as the Hunter Valley which have been subject to an increasing rate of transformation from coal mining and are a focus of continuing extractive industry. We agree with Veth (2011:95-96) that 'archaeology represents an irreplaceable record of human behavior not obtainable from any other source'" (Sutton et al 2013:7).

Hunter Valley industries and development

To understand the impacts to our Country by the proposed expansion of the Glencore Mount Owen Project, an understanding of the Hunter Valley economy and industries more broadly and mining more specifically is required. The following section examines the collective impacts of these industries.

The Hunter Valley's economy is diverse and mature, with major industries including aluminium smelting and metals processing, transport, machinery and equipment manufacture, defence and aerospace, chemical processing, timber and woodchips, aquaculture, thoroughbred horses and wine, as well as coalmining and power generation (Evans 2009:59).

The largest employment sector is in retail services (12%), followed by health services (12%), manufacturing (11%), construction (8%), education and training (7%), accommodation and food service (7%), public administration and safety (6%), and professional, scientific and technical work (5%) (Evans 2009:59).

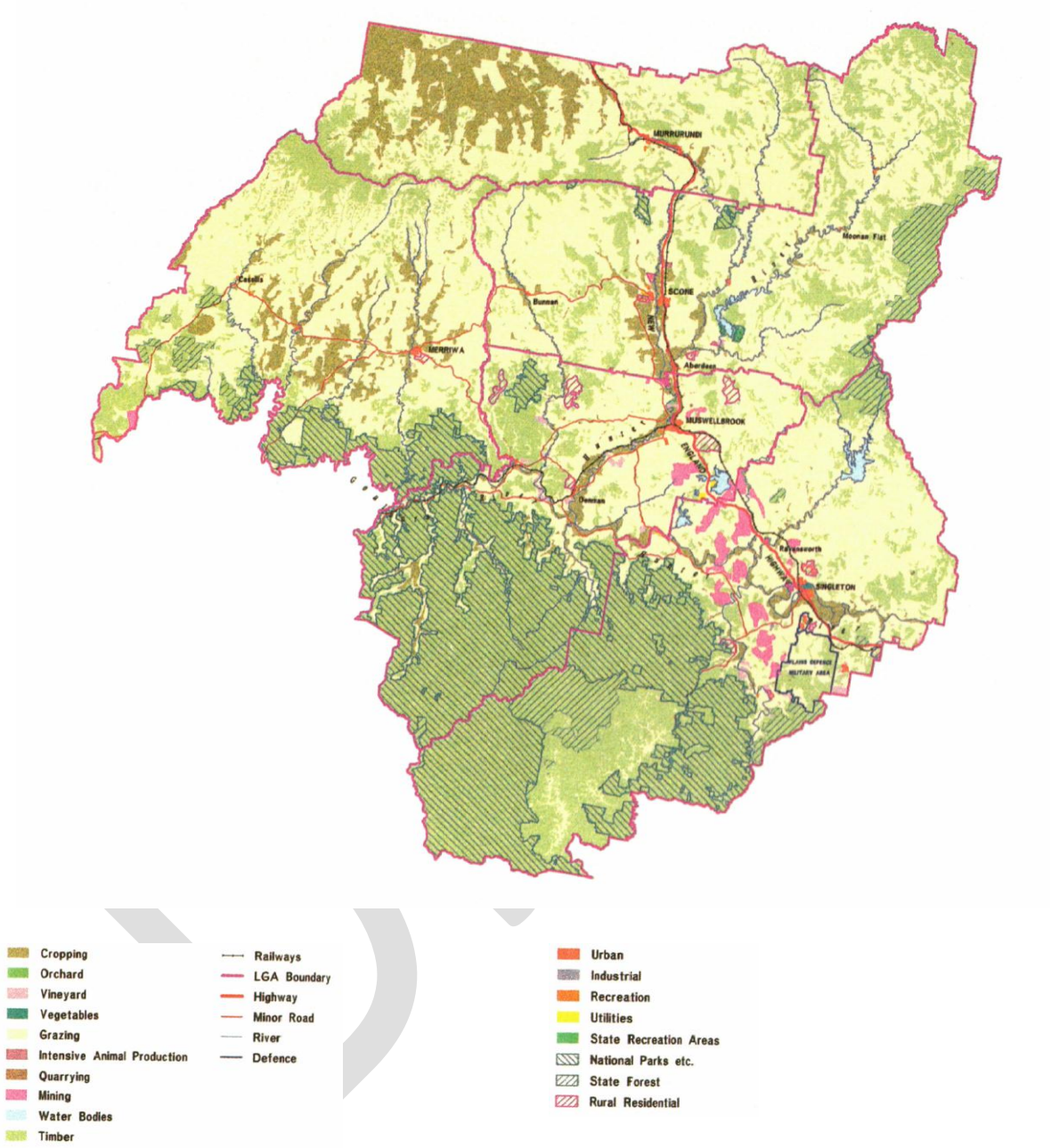
In a 1997 review of Hunter Valley industries and their cumulative impacts, DUAP (1997:33-35) made the following observations about key industries and their land uses:

- agriculture continues to be a significant land use in the Hunter Valley, where it occupied 1,039,000 hectares of land in 1995/1996, with the greatest concentration of land in Murrurundi and Merriwa;
- intensive animal husbandry such as piggeries, poultry sheds and cattle feedlots occupied 250 acres;
- vineyards occupied 4250 hectares, with 50-60 vineyards predominantly located in the Broke-Fordwich, Jerrys Plains, Denman, Sandy Hollow area at the time;
- quarrying occupied 650 hectares, with the majority extracting gravels from the Hunter and Goulburn Rivers; and
- coal mining was a major employer in the Hunter Valley, with employment in 1991 comprising 15% of all workforce of region and approximately 90% of coal comes from open cut mines.

The extent of these and other industries in 1997 is shown in the following figure.

Draft

Figure 8: Hunter Valley land uses (from DUAP 1997)



The above map shows that the ecological systems within the Hunter Valley have been radically transformed by human activity over the last 200 years through the combination of agriculture, mining and other industrial development and urbanisation, with approximately 76% of natural vegetation of the central Hunter Valley being depleted, leaving vast areas of the region now covered by pasture grasses, crops, and coalmines (Evans 2009:56).

Regional development has also had a direct impact on surface and ground water in the Hunter Valley, with land clearing associated with increased water mobilized to the fresh water system via through-flow or groundwater discharge; increasing the solute concentration entering the stream from the landscape. Coal mining in the upper Hunter Valley also has major impacts on groundwater

due to loss of coal measure aquifer pressure and leakage of groundwater from shallow alluvial aquifers (Biswas 2010:58).

The mining industry of the Hunter Valley

Mining is directly involved with natural systems, and causes obvious environmental impacts that impacts the lands and lives of people, in particular Indigenous peoples (Lertzman and Vredenburg 2005:240). In order to consider the distinctive and cumulative impacts of mining in the Hunter Valley, in which context the Mt Owen project can be understood, the following section discusses the impact of the mining industry on our Country and the cumulative impacts associated with mining.

Historical development

The Hunter Valley's coal industry developed in three phases, which Evans (2009:60) has described as 'Early Colonial', 'First Coal Rush' and 'Globalised Market'.

The Early Colonial phase saw the onset of commercial coal mining in the Hunter Valley to 1901, with the first mine dug at the mouth of the Hunter River at Newcastle. During the 1800s, coal mines extended from Newcastle into the surrounding suburbs of Teralba, Fassifern, and Beresfield, and then into the lower Hunter Valley moving along the Greta Seam around Maitland and Cessnock. The development of this rich seam gave a major boost to the industry, with many new pits and nearby miners' villages established as the centre of the industry steadily moved from the mouth of the Hunter River towards the upper Hunter Valley (Evans 2009:60-61).

The early mines of the 1800s were mostly underground mines that used manual rather than mechanical methods of mining; and the relatively small scale of the mines kept their environmental impacts small and localised (Evans 2009:61). This small scale start to the industry is reflected in the first annual report of the NSW Department of Mines (1875) which reported about 3,000 miners living in the Hunter Valley (cited in Evans 2009:62)

The second phase of mining, the First Coal Rush phase, emerged as the South Maitland coalfield was developed on Greta Seam in the 1880s. Coal became NSW's most valuable mineral commodity by 1900, overtaking gold, with a value exceeding £1.5 million. By 1920, coal worth £7.8 million was mined, while gold had declined to only £0.25 million of a total mining wealth of £11.5 million (Evans 2009:63).

By 1900, the Hunter coal industry was burgeoning with many large new mines being opened up and thousands of workers and their families moving to the region to work in them. The mines developed at this time were much larger than previous operations, with mechanical methods used for the first time. Although open-cut mining and mechanical loaders were introduced after 1935, the pace of mechanisation was slow, with only 36% of coal in NSW being mechanically cut and only 27% mechanically loaded, even as late as 1946 (Hargraves 1993, Evans 2009:63).

The turn of the century represented significant growth in the Hunter Valley coal industry, with the number of miners on the South Maitland coalfields exploding from 377 in 1899, to 10,505 in 1904.

Draft

By 1925, this has increased to 16,596 miners, with the Hunter Valley providing 60% of the coal mined in Australia (Evans 2009:63).

By 1939, the Hunter Valley mining boom was beginning to wane, with the number of miners falling to 10,590, but the industry steadily expanded production over the next four decades. The workforce in NSW coalmines stabilised at around 17,000 for most of the first half of the 20th century. There were 17,020 Hunter Valley coalminers in 1945 and 17,737 in 1960, producing 18 million tonnes (Gollan, 1963; Thomas, 1983; New South Wales Department of Mines, 1875-2005) (Evans 2009:63-64).

By the 1940s, the Hunter Valley was one of Australia's major mining and manufacturing centres, but was a region whose communities suffered chronic disadvantage (Hunter Regional Planning Committee 1977: 50).

In the late 1970s and 1980s, the Globalised Market era begins, which sees a massive expansion of Hunter coalmining and exports, and major investments in coal-fired power generation as the region came under the influence of the global- markets (Evans 2009:65).

However, even within this time there has been variation in demand, for example, 1970 was characterised by near-full employment in the Hunter Valley, which was followed by high unemployment in the mid-1970s (Parker 1984:75).

The 1980s coal rush was followed by another after 2000, with a doubling of global coal prices prompting a new wave of mining growth (Evans 2009:66).

Modern day

Mining in NSW, and Australia more broadly, is dominated by large multinational corporations, with Altman (2009:24) identifying from Australian Stock Exchange listings that 80–85 per cent of mineral production in Australia is undertaken by multinational corporations.

Australia is the world largest exporter of black coal and the fourth largest producer. The national industry generates $AUS 24.3 billion in exports and directly employs 28,000 people, with New South Wales being the second largest producer of black coal in Australia after Queensland (Franks et al 2008:33).

The New South Wales coal mining industry has enjoyed a period of great prosperity over the past few years, with $13.2 billion in income generated in 2009-10 (NSW Trade and Investment 2013).

The Sydney-Gunnedah Basin, including the Hunter coalfields, contain almost all of the coal resources in NSW (NSW Trade and Investment 2013) and hosts the large majority of NSW mines (Franks et al 2008:33).

The coal mining industry is a major employer in NSW, with 19,087 people employed in the five coalfield regions across NSW at the end of June 2010. Reflecting the growth of the industry, this was an increase of 2173 positions (12.8%) compared with June 2009. This is the highest level of employment in the industry in more than two decades, with at least two to three times this number indirectly employed through the provision of both mine and non-mine related services (NSW Trade and Investment 2013).

Draft

In the Upper Hunter shires of Muswellbrook and Singleton, 16.2% and 19.9% of the workforce respectively was employed directly in mining, compared to the Lower Hunter localities of Newcastle (1%) and Maitland (4.3%) (Evans 2009:59). As of June 2008, employment in coal mines in the Hunter-Gunnedah and Newcastle coalfields was 7,840 and 2,140 respectively, with this broad region retaining 9,980 of all 14,100 mine workers in NSW at the time (ACIL Tasman 2009:13); or over 70% of the state's mining personnel.

> "It is important to note that there is not parity (equality) in the representation of Aboriginal people in the mining industry workforce". *The WTC spokespersons on behalf of the claimant group*

In a recent studies by the NSW DPI (2008) and Evans (2009), it was identified that the region has 38 then-currently operating coalmines, with more than 20 others are in planning and approval phases of development. Of those then operating, 18 were open-cut operations, 16 were underground operations and four utilised both methods of mining (Evans 2009:67).

Not only has there been a large increase in the number of new and proposed mines in the Hunter Valley, but the spatial scale of coalmine extraction has grown, with introduction of the highly mechanised mining technologies, particularly long-wall underground mining and vast open-cut mines (Evans 2009:68).

Most of these mines are concentrated around the towns of Singleton and Muswellbrook, which has been the historic focus of mining in the upper Hunter Valley (Evans 2009:68), which has resulted in many people describing the areas of Singleton and Muswellbrook as looking 'like a moonscape' (Connor et al. 2004, Connor et al 2008:77).

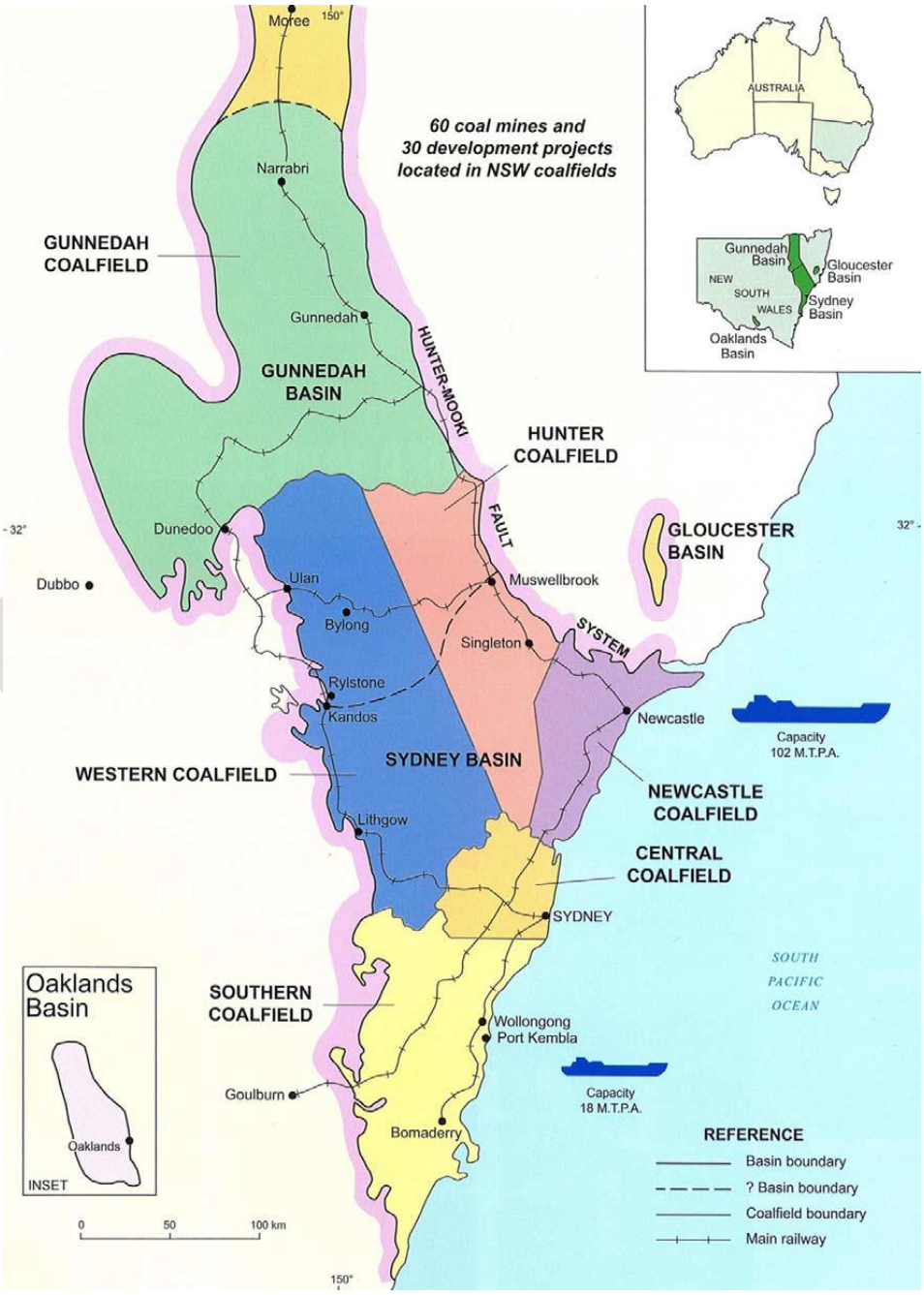
Figure 9: Aerial view of Hunter Valley coal mines (from State of NSW and EPA 2013)



The Hunter Valley also contains infrastructure related to the mining industry, with six coal-fired power stations which between them generate about 40% of Australia's electricity supply. The Hunter Valley is also the site of some of Australia's most carbon-intensive industries, including two large aluminium smelters, which utilise a third of the coal-fired electricity generated in the region (NSW DPI, 2008; Saddler et al., 2004; Diesendorf, 2007, Evans 2009:2).

The extent of mining operations in the Hunter Valley is illustrated on the following figures and described in the following tables.

Figure 10: Coal mining regions of New South Wales



Source: Franks et al 2008:6

Figure 11 Hunter Coalfields (Franks et al 2008:7)

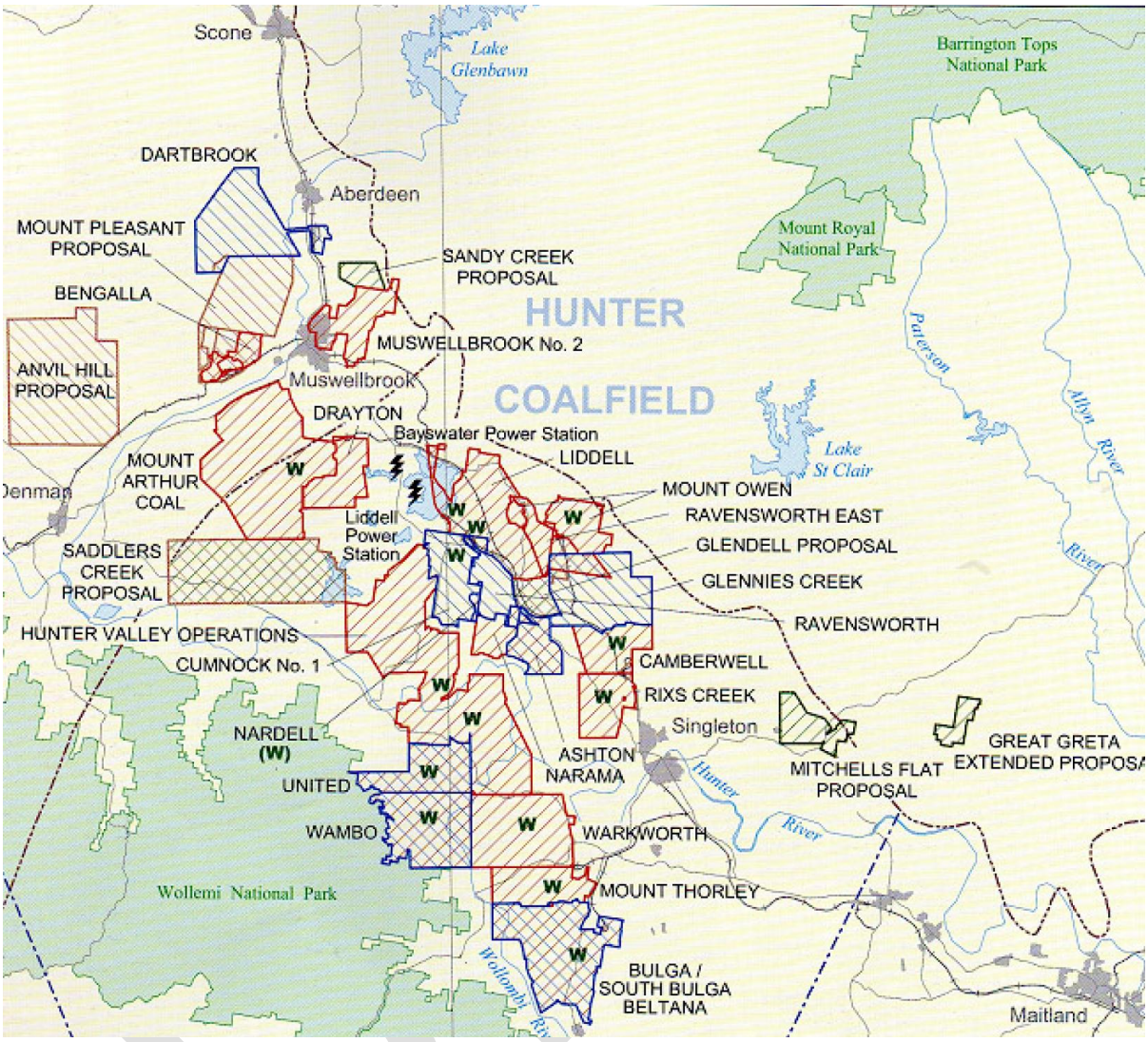


Table 4: Open cut mining in the upper Hunter 1994 (DUAP 1997:36)			
Mine	**Total colliery holding area (ha)**	**Cumulative total area disturbed (ha)**	**Total area rehabilitated (ha)**
Bayswater	683.6	483.6	102.1
Camberwell	915	306	83.5
Cumnock	228	103.3	8.8
Drayton	1602.5	855	152.3
Howick	2246	1068.5	175.7
Hunter Valley	3650	1219.3	370.2
Lemington	1650	820.6	232.1
Liddell	1016	677.4	65.7
Mt Owen	1314	0	0
Mt Thorley	1740	788.5	158.5
Muswellbrook	1023	355.4	65.7

Table 4: Open cut mining in the upper Hunter 1994 (DUAP 1997:36)			
Mine	**Total colliery holding area (ha)**	**Cumulative total area disturbed (ha)**	**Total area rehabilitated (ha)**
Ravensworth	820	1221	396.9
Rixs Creek	1065	181.3	84.7
Saxonvale-Bulga	3258	1050.8	207.6
Swamp Creek	1050	433.1	410.8
United	570	73.4	43.2
Wambo	3360	435	136.3
Warkworth	2955	889.1	136.3
Total	**29,136.1**	**10,964**	**2830.4**
% Upper Hunter Region (total area 18,218 km²)	**1.6%**	**0.6%**	**0. 16%**

Table 5: Hunter Valley open cut coal deposit (DUAP 1997)						
Status	**Mine**	**Mine Life (Years)**	**Recoverable Reserves (Mt)**	**Raw Product (Mta)**	**Start Date**	**Finish Date**
Current open cut mines	Bayswater No. 2	5	10	1.95		2000
	Ravensworth	6	24	4.00		2001
	Liddell	9	10	1.04		2004
	Cumnock South	11	10	0.85		2006
	Camberwell	16	46	2.75		2011
	Muswellbrook	16	20	1.30		2011
	Lemington	17	57	3.34		2012
	Drayton	17	64	3.77		2012
	Rixs Creek	17	26	1.50		2012
	Mt Thorley	19	142	7.40		2014
	Wambo	20	30	1.50		2015
	Saxonvale-Bulga	26	130	5.00		2021
	Narama	27	57	2.06		2022
	Howick	32	136	4.23		2027
	Mt Owen	35	107	3.00		2030
	Hunter Valley	37	275	7.43		2032
	Warkworth	51	230	4.50		2046
Open cut development proposals	Bayswater No. 3	46	207	4.50		2042
	Bengalla	69	450	6.50	1997	2066
	Mount Pleasant	33	250	7.50		2028
	Mt Arthur North	60	334	5.50		2065
Open cut deposit	Howick Extension	30	203	6.77	1998	2028
	Dartbrook	19	40	1.50	1998	2017
	Kayuga					
	Ravensworth	20	50	2.50	2004	2024

Draft

Table 5: Hunter Valley open cut coal deposit (DUAP 1997)						
Status	**Mine**	**Mine Life (Years)**	**Recoverable Reserves (Mt)**	**Raw Product (Mta)**	**Start Date**	**Finish Date**
	No. 3					
	Castle Rock	20	30	1.50	2009	2029
	Ashton	26	40	1.50	2010	2036
	Mt Arthur South	30	75	2.50	2012	2042
	Lemington East	20	40	2.00	2013	2033
	Glendell	23	70	3.00	2015	2038

Table 6: Hunter Valley Underground coal deposit (DUAP 1997)						
Status	**Mine**	**Mine Life (Years)**	**Recoverable Reserves (Mt)**	**Raw Product (Mta)**	**Start Date**	**Finish Date**
Current underground mines	South Bulga	42	160	3.80		2037
	Cumnock	40	60	1.50		2035
	Wambo	42	96	2.25		2037
	Muswellbrook No. 2	33	10	0.30		202
	United	100	150	1.50		2095
	Dartbrook	47	143	3.00		2042
Underground proposals	Glennies Creek	37	94	2.50	2000	2037
	Mitchels Flat	27	68	2.50	2010	2037
Underground deposit	Nardell	50	150	3.00	2000	2050
	Liddell	74	185	2.50	2005	2079
	Muswellbrook Extns.	50	100	2.00	2005	2055
	Wambo Extension	80	200	2.50	2008	2088
	Castle Rock	30	75	2.50	2010	2040
	Mt Thorley	100	250	2.50	2013	2113
	East Denman	40	100	2.50	2018	2118
	West Bulga	100	250	2.50	2018	2118
	West Scone	30	75	2.50	2019	2049
	Wollombi	30	75	2.50	2020	2050
	South Bulga Extns.	26	100	3.80	2023	2049
	Lemington East	94	235	2.50	2004	2118

Draft

Projected industry futures

The continued growth of the NSW coal mining industry has been forecasted by the Australian Bureau of Agricultural and Resource Economics and Sciences, who predict – despite recent down turn in the economy– the continued solid growth in demand for both thermal and metallurgical coals over the next couple of years (NSW Trade and Investment 2013). On this basis, NSW Trade and Investment (2013) identify that the overall outlook for the NSW coal industry is positive, given the favourable geology, well-developed infrastructure, low average operating costs, use of leading edge exploration and mining technologies and the availability of a skilled workforce.

> "While the projected industry futures may appear positive, it is not without a devastating effect on our culture and heritage and our people and the legacy for our children and children's children". *WTC spokespersons on behalf of the WTC claimant group*

As discussed previously, a NSW DPI study in 2008 found that more than 20 coal mines were being planned for the Hunter Valley at the time, in addition to the 38 then-operating. The extent of these mines, including those being planned for in 200, is illustrated in the below Figure.

Figure 12: Coalmines surround the towns of Muswellbrook and Singleton (DPI, 2008)



Extent of land disturbance

Detailed information on the cumulative impacts of mining in the Hunter Valley, specifically on the actual extent of lands lost or irrevocably altered, is difficult to access; however, the WTC have collated the following publically available information to provide a broad understanding of the extensive impacts of mining on our traditional lands and waters.

Satellite derived imagery of the region taken in 1988 and again in 1999 shows that the area of land severely affected by mining has increased dramatically to now degrade over 500 square kilometers – or 50,000 hecatres – of the middle to upper-Hunter region (Albrecht 2000, Connor et al 2008:77).

The extent of land disturbance from mining was recalculated as more than 520 square kilometres – or 52,000 hectares –in 2005, with Rhiannon (2005:11) identifying that at that time approximately 20% of the Hunter floor was occupied by coal mines.

This represents a dramatic increase in the extent of land impacted in over the past 20 years, with a 1997 study by DUAP (1997:36) describing that only 10,964 hectares of land was disturbed by open cut mining in the Hunter Valley – with the extent of land lost quadrupling in the past 15 years. The dramatic expansion of the mining industry since that time, and its continued transformation of our cultural landscape, is evidenced by continued approval and expansion of mining projects, such as the recent approval of the Ravensworth Operations Project immediately west of Mt Owen, whose Project area alone was 5,590 hectares (Umwelt 2013) – and whose impact, along with other recent projects, is not included in the above statistics.

Distinctive impacts of the mining industry

> "The WTC assert that open cut mining activity in particular has the most profound adverse impact on our culture and heritage, destroying vast tracks of our landscape, impacting our waterways ,and cultural places, material culture, the entire ecosystem including soils, vegetation, our animals water quality and supply, climate change and erosion and night and day sky impacts". *WTC spokespersons on behalf of the WTC claimant group*

As previously stated, mining as an industry is directly involved with natural systems, and as such causing the most obvious environmental impacts (Lertzman and Vredenburg 2005:240).

Transformation of the landscape through mining, which often also cause distress amongst local communities, includes destruction of the landscape by open cut mining and associated impacts on residents include dust, noise and compulsory acquisition of property, leading to loss of neighbours, livelihoods and a 'beloved' landscape (Connor et al. 2008: 77).

The impacts of these on local communities are often not part of what Trigger (1997:162-163) has referred to as the mining 'corporate narrative', which is instead focused upon growth and process – which become a 'moral imperative' for mining, and tend to diminish or marginalise local community well-being or other stories about the meaning of places (Trigger 1997:162-163, Sutton et al 2013:6).

Rapid social and cultural change

The mining industry is also one associated with rapid social change within regional communities.

In spite of its historic role as a "powerhouse of the NSW economy", and being the place of residence of some of NSW's highest income earners, the Hunter Valley has been a chronically disadvantaged community with indicators of social wellbeing historically below Sydney and NSW averages (Evans 2009:75).

In 2008, a mining industry-funded study of the cumulative impacts of coalmining in the Muswellbrook area, conducted by the Centre for Social Responsibility in Mining, identified adverse social changes including a gap between "haves" and "have-nots" in the Hunter Valley, increased noise and vibration, loss of visual amenity and decreased air quality. The research identified increased employment and wealth, mine expenditure expanding mine-related businesses, and increased knowledge of safety as claimed mining-related benefits (Brereton et al., 2008). The report was criticised by the Upper Hunter environmental group, Minewatch, for not considering health impacts of mining on local communities (Evans 2009:76).

While it is acknowledged that the establishment of mining is associated with creation of jobs and the investment in economies, although mining also stretches environmental, social, human and economic capital; The closure of mines in a region can also lead to cumulative impacts, as the industry is not one that is long term and that will provide ongoing sustainable futures for families and communities (Franks et al 2008:1; Altman 2009:29).

The social cumulative impacts of coal mining commencement and departure is especially profound for Aboriginal communities who are living in Country and who witness the full life cycle of these changes – whereas others may simply move on to the next mine, Aboriginal people living on ancestral lands may not do so, and they are therefore more vulnerable to the rapid social transformation and loss (Altman 2009:29-30).

The social impact of the transformation of our social and economic lives through mining also must consider threats to our distinctive Wonnarua culture and ways of life, because, as stated by Altman and Rowse (2005: 176):

> *".....to change peoples' forms of economic activity is to transform them culturally".*

Cultural and social impacts on Aboriginal communities

The links between Aboriginal wellbeing, cultural heritage and the environment are well established, for example, see Human Rights and Equal Opportunity Commission (1997); OEH (2011); Grieves (2006) and Memmott (2007).

The WTC agree with the following statement by Albrecht (2006:34-35):

> *"The Indigenous people of the Earth who have been dispossessed of their land and its cultural meanings are likely to experience the pathology of nostalgia. The nostalgia for a past in which geographical and cultural integration were both highly valued and sustainable is, for them, an ongoing, painful experience.*

Draft

Dispossession is one trigger, but environmentally induced distress also occurs in people who are not displaced. There are places on Earth that are not completely lost, but are radically transformed. People who are neither voluntarily nor forcibly removed from their homes can experience place-based distress in the face of the profound environmental change.

They experience a breakdown of a healthy relationship between their psychic identity and their home. They lack the sense of solace or comfort that is usually derived from their relationship to home.

Therefore, I suggest "solastalgia" to describe the pain or sickness caused by the loss of, or inability to derive solace from, the present state of one's home environment".

Albrecht also states that solastalgia is the lived experience of the loss of value of the present and is manifest in a feeling of dislocation, of being undermined by forces that destroy the potential for solace to be derived from the immediate and given. In brief, "…solastalgia is a form of homesickness one experiences when one is still at home" (2006:35), which can be caused by natural factors such as drought, fire and flood, or artificial factors such as war, terrorism, land clearing, climate change, mining, rapid institutional change and the gentrification of older parts of cities.

In a recent review of Hunter Valley cultural heritage practice, Sutton et al (2013:2) supported Albrecht's 'solastalgia' concept as a way to understand the potential long term effects and distress experienced by Aboriginal people in the Hunter Valley due to social impacts of mining and the loss of cultural heritage places.

Coal mines and their impact to waterways

Coalmines and power stations are the two biggest single users of Hunter River water (Evans 2009:77), and the coal mining industry has led to widespread change to our the landscape through the introduction of power stations and necessary supply of water (dams), land subsidence and potential water quality deterioration due to impacts of washeries and the alteration of ground water flows (Burton and Thorp 1990:8).

The geological composition of the upper Hunter Valley is naturally high in salt, and the potential for mining to increase the salinity of Hunter catchment has been a cause for concern in the local community. The disturbance of ground containing salt increases the potential for that salt to become dissolved in groundwater, and later enter the catchment system. Due to the pressures on the Hunter catchment from mining, agriculture and electricity generation, a comprehensive monitoring and regulation framework, the Salinity Trading Scheme was trialled in 1994, and implemented in 2003 (Franks et al 2010:42).

Under the trading scheme, salty water can only be discharged when the salt concentration in the river is low. Under low river flow conditions, no discharges are permitted; under high flow conditions limited discharges are allowed as determined by a system of tradable salt credits. Under flood conditions, unlimited discharge is permitted up to a threshold salt level. Stakeholders hold a license for a certain number of credits which permits them to discharge salt into a river block in proportion to the number of credits they hold (1 credit allows the holder to contribute 0.1% of the total allowable discharge). There are a total of 1000 credits in the trading scheme; these may be traded

among stakeholders in the marketplace (NSW EPA 2003). The ownership of credits, their price, and the volume and concentration of discharges are publicly reported to the community (Franks et al 2010:42).

In reviewing changes to the lands and waters of the Hunter Region since European invasion, Albrecht (2000) identifies that major environmental impacts in general have occurred, and with respect to the river in particular, increases in the salt load from mine water discharged into the Hunter River is an environmental problem.

> "The WTC continues to be concerned regarding the absence of cleaner approaches to managing mining salinity. We do not agree that it should be allowed to be released into our water system. Traditional Owners and other knowledge holders are excluded from any discussions and decision making regarding the impact to our culture and heritage with Glencore." *WTC spokespersons on behalf of the WTC claimant group*

The Hunter River Salinity Trading Scheme, while managing the issue to some extent, is still a State sponsored licence to pollute fresh water. Continued expansion of open cut coal mining in areas where salt water discharges are a likely outcome will continue to have negative impacts on fresh water ecosystems (Albrecht 2000).

Human health

The processes involved in mining and the use of mineral products have harmful effects on both ecosystems and human health at local, regional and global scales (for example, see Echavarría, 1999, 2003; Maclean & Warhurst, 1999; Warhurst, 1999; Lebel & Burley 2003; Mergler, 2003; Maclean et al., 2003; Pereira & Komoo, 2003; Noronha, 2003, Evans 2009:71).

In 2005, a transdisciplinary team of researchers from the University of Newcastle, NSW, documented the link between ecological and human health distress. The study recorded higher incidences of respiratory diseases and depression than that occurring in other rural areas of the Hunter that were not being subjected to mining (Evans 2009:75).

Air quality

The Hunter Valley economy is not just jeopardising ecosystem health and sustainability at the regional scale, but, with each tonne of Hunter Valley coal burnt annually (locally and globally) contributing around 2.4 tonnes of carbon dioxide (or its equivalent) to the global atmosphere (Australian Department of Climate Change, 2008: 12), the region's economy is jeopardising ecological and human health at the global scale, and therefore no longer has the qualities of a moral economy. (Evans 2009:2)

In October of 2009, the New South Wales Government announced an initiative that will develop an independent air quality monitoring network for the Upper Hunter Valley. The network will be developed in response to health and amenity concerns of dust pollution from coal mining and emissions from coal fired electricity generation (Franks et al 2010:41).

Past assessments of Hunter Valley cumulative impacts

Cumulative impact assessments of mining and regional development within the NSW Hunter Valley are rare, but information has been sourced from two government studies – a 1997 study by DUAP on cumulative impacts at that time, and a NSW Department of Planning review in 2005, which although not a cumulative impact assessment did comment on cumulative impact practice in the Hunter Valley. In addition, the Australian Centre for Corporate Social Responsibility (ACCSR) conducted a community survey in 2011 to gain an understanding of broader community concerns regarding the cumulative impacts of mining in the Upper Hunter Valley.

The DUAP (1997) study summarised regional development pressures at that time, which as previously noted, then included 38 coal mining operations with a further 20 planned. The study also called for more focussed examination of cumulative impacts in assessments, improved regional and sub-regional planning and strengthened monitoring and datasets. Key recommendations included that cumulative impact be addressed in EIS preparation, and that a landscape master plan be developed to coordinate between existing and future mines, to lessen the visual impact of construction and mining developments and to ensure appropriate mining rehabilitation (Franks et al 2008:13,21).

The 2005 DPI review took into consideration coal resources, mine development potential, surface and groundwater, social and amenity issues, natural and cultural heritage, land and agriculture; and stressed the need for better assessment of cumulative and regional impacts and improved attention to cumulative impacts within project level EIAs.

The recent 2011 ACCRS study found that the community of the Upper Hunter is concerned about the cumulative impacts of mining in the region, with issues such as dust and air quality, water usage and agricultural land impacts chief among the concerns raised. Key findings were (ACCSR 2011:6):

- There is a high level of recognition amongst the community that cumulative impacts from mining exist;
- Most stakeholders agree that everyone needs to work together to address the cumulative impacts of mining;
- The community has a negative perception of the coal mining industry as a whole, however, rates relationships with individual mining companies more favourably;
- The study suggests that the community is comprised of several different groups who do not always agree on what needs to be done and do not yet have strong enough relationships with one another to work together effectively;
- Bridging the divide between these groups will be a key challenge in developing solutions to the cumulative impacts of mining;

Draft

- Topics relating to environment, health and safety, the economy, employment and income were raised most often by participants; and
- Dust and air quality, and employment opportunities and development, were the two most frequently mentioned topics.

The study also found that"the scale of the industry's growth brings with it a responsibility to think about things differently and to do things differently as well" (ACCSR 2011:4), and stated:

> *"The need for increased/improved dialogue and collaboration was the issue raised by the greatest number of groups. Positive perceptions of dialogue and collaboration and greater transparency and input in planning, expansion and approval process were also mentioned by a range of groups" (ACCSR 2011:24).*

While it was acknowledged that the mining industry in the Upper Hunter uses a range of different methods to communicate with the community, the ACCRS survey also indicated that face-to-face meetings are the preferred means of communication for most groups, highlighting the important role of direct communication in developing solutions to the cumulative impacts of mining (ACCSR 2011:34).

Community concerns over cumulative impacts of mining in the Hunter Valley have led to some programs, such as the Hunter River Salinity Trading Scheme (HRSTS), which is an example of a regional approach to monitor, mitigate and report on cumulative impacts in NSW (Franks et al 2010:42).

Mining industry relationships with Aboriginal Australian peoples- the first peoples/the original inhabitants of this Country

Resource extraction companies worldwide are involved with Indigenous and Aboriginal peoples, and while historical mining company relationships with Aboriginal people have been antagonistic, there is a growing public expectation for improved ethical performance of resource industries to engage with Aboriginal peoples (Crawley and Sinclair 2003, Lertzman and Vredenburg 2005:239).

As previously noted, mining causing major environmental impacts to natural systems. However, mining also impacts the lands and lives of people, in particular Aboriginal peoples whose long-resident cultures sustain beliefs, values and uses of local ecosystems that are frequently at odds with the act of mining. Interactions with Aboriginal peoples nationally and globally have thus led resource extraction companies into ethically challenging situations, often resulting in conflict (Lertzman and Vredenburg 2005:240).

In Australia, this conflict has been evident – and is evident – in relationships between Aboriginal communities and mining companies. Although the stance of mining companies towards Indigenous communities in Australia has changed radically since the 1980s, a recent study found that many are still 'ethically under-developed' and that engagement with Indigenous communities often occurs

within a "Corporate Relations" or "Public Relations" framework instead of engagement based on obligations, rights and duties (Crawley and Sinclair 2003:361-362, 367).

Such practices reflect a business history where the welfare and employment of Aboriginal communities has not been seen as a 'business issue', with many corporations having little contact with Indigenous people. For generations, many mining companies had little to do with the traditional owners of the lands they worked, although over time a combination of public pressure, the need to avoid bad publicity, changing land legislation, the requirements of emerging best practice and a growing sense of responsibility towards the communities in which they operate all contributed to the development of relationships between mining companies and some indigenous groups (Crawley and Sinclair 2003:362-363).

Perhaps the most important influence on mining company practice in Australia was the Mabo decision of 1992, challenged the almost uninhibited access to land that had shaped non-indigenous Australia's political, social and economic landscape to that time. The Mabo decision resulted in many Australian mining companies giving consideration to Indigenous groups for the first time (Crawley and Sinclair 2003:363).

While mining companies have improved their awareness and approaches towards Indigenous groups in Australia over the past 10 years, engagement with Aboriginal communities still occur as isolated contacts rather than being part of a company-wide enduring engagement, or more strategic approach; and decision making over this approach tends to still be made by non-Aboriginal senior mining executives rather than by Aboriginal communities, or through the collaboration of the two (Crawley and Sinclair 2003:367).

Another characteristic of mining company and Aboriginal relationships has been the view that those who argue for social justice, fairness and representation are often cast as "soft, bleeding hearts" or those wearing "black armbands" (supporters of Indigenous rights), who don't understand business imperatives (Sinclair 2000, Crawley and Sinclair 2003:369). This dominant dialogue tends to put a "business case" first and marginalises Aboriginal perspectives in the development and assessment process, or creates silence in the industry about Aboriginal rights and interests, and collaborative practices that reflect ethical principles.

As stated by Crawley and Sinclair (2003:369), engaging with Aboriginal communities is not just about 'adding one more stakeholder group that needs to be consulted and managed', which tends to be the dominant approach.

The development of long term management outcomes also need to consider and support the unity of our Peoples and the need to bring our people together in order to be successfully determined in the National Native Title process- not set up structural and programmatic initiatives which divide our people and work against this approach. *The WTC spokespersons on behalf of the WTC claimant group*

Any future measures relating to this project or any other Glencore projects need to respect the processes being undertaken for Traditional people to self-determine and result in sovereign recognition. Any and all programmatic or funding initiatives which result in dividing and stressing of families should be avoided as a core social justice and healing approach. This is consistent with the Human Rights Compact- (United Nations Global Compact) signed by Glencore at an international level". *The WTC spokespersons on behalf of the WTC claimant group*

Draft

Ethical Models for Resource Industry Practice

In the above context, the WTC support the principles of the ethical model proposed by Crawley and Sinclair in 2003, which proposed an ethically based model of "enduring engagement" founded upon two-way learning and adaptation, long-term sustainable relationships, power sharing, and the fundamental assumption that, rather than being treated as a means to an end, Indigenous cultures and communities have value in themselves. Underpinning this is the approach that mining companies should engage with Indigenous communities in culturally-responsive and respectful ways (Crawley and Sinclair 2003:369).

The model proposed by Crawley and Sinclair (2003:370-371) is based on four ethical criteria for mining company and Aboriginal relationships, being:

1. **Two-way learning and adaption.** Until cross-cultural training is truly a mutual sharing of cultural knowledge of both Indigenous and non-Indigenous groups, and this knowledge is incorporated into company-wide divisions, mining companies will continue to be paternalistic, tokenistic and ultimately self-interested, in spite of the efforts of many genuinely com mitted Indigenous and non-Indigenous people within the industry. Those companies who appear to exhibit a high level of comfort with the policy of working with Indigenous groups, nevertheless do so with the knowledge (and the source of the comfort perhaps) that this work is taking place in a separate section of their company, and therefore does not affect their day-to day working life. A process is more likely to be ethical if its communication, learning and change processes are two-way. The process is not a paternalistic one of "training up" the minority group while assuming that dominant group has no need to learn anything. An ethical process would be one in which the leadership or management group has built into their ongoing developmental processes, opportunities to be exposed to and learned about, for example, indigenous processes of sustainable environmental management. This training is regarded as integral to leadership training rather than an "add-on" of cultural sensitivity. One of the outcomes of these two way processes would be knowledge of, and respect for the two cultures built on personal interactions and relationships.
2. **Long-term sustainable relationships between individuals and communities.** A process that involves only a short-term relationship shared by two individuals is less satisfactory than one that would continue even after these individuals had moved on. The value put on long-termism acknowledges the importance given to history and ancestry in Indigenous culture. The definition of morally-desirable practices would be those that do not rely on the leadership of one or two individuals. These practices would be integrated into the systems and structures, outliving individual relations and showing a capacity for ongoing institutional adaptation.
3. **Power sharing.** This criteria is a highly contentious one, but it is our belief that unless the dominant group is prepared to share a level of power over some aspects of the relationship with a minority group, then organizational initiatives will remain token and paternalistic. This

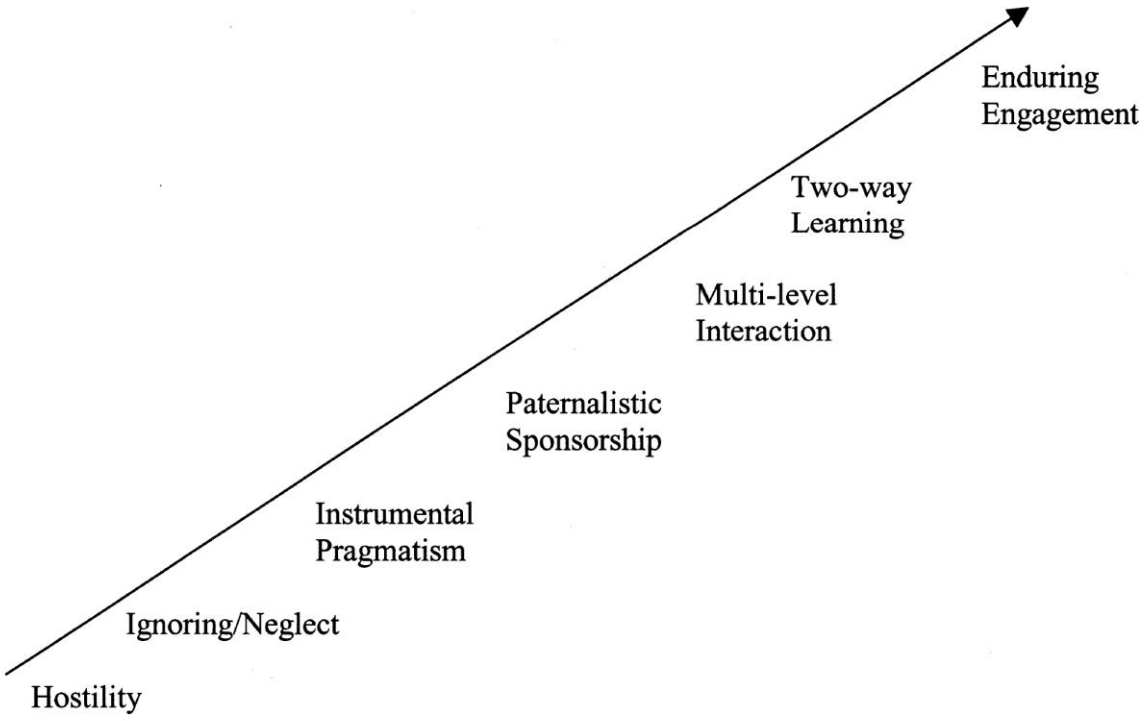
power sharing may take the form of advisory structures in which there is commitment to follow through on the outcomes even if they are not initially palatable to organizational representatives. It may take the form of a genuinely devolved structure in which there is the opportunity for decisions to be made and implemented as a result of Indigenous input. An unethical structure would be one where, despite active engagement with Indigenous peoples, the structure of power and decision-making remained absolutely intact with Whites.

4. **Indigenous communities as valuable in themselves.** This criterion builds on Kant's categorical imperative that individuals should never be treated only as means to an end but should be treated as important ends in themselves (Forsyth, 1992). An organizational initiative which treated an indigenous employment program as a means of gaining kudos in the market, would clearly violate this criterion. In contrast, an ethical company would support the value and significance of indigenous culture as an end in itself and needing no further justification.

The above approach recognizes that intention and motivation, not just outcomes, are an important part of acting ethically (Crawley and Sinclair 2003:371).

In their review of the Australian mining industry, Crawley and Sinclair (2003:371) identified a continuum of stages (refer to the below Figure) through which companies might pass in their ethical development in relations with Indigenous communities.

Figure 13. Stages of corporate ethical development in relations with Indigenous communities. (from Crawley and Sinclair 2003:371)



The Enduring Engagement phase identified by Crawley and Sinclair (2003) would be founded on a deep respect for Indigenous cultures and an acknowledgement of their traditional roles as custodians of the land that was widely-felt by corporate employees. This would involve practice based on two-way cultural learning and adaption, enduring relationships which encompass but extend beyond individuals, a recognized level of power-sharing and a set of intentions and motivations articulated at the leadership level which go well-beyond self-interest, take history into account and actively seek a relationship which minimizes cruelty and suffering. These activities and intentions would be built on

In 2003, Crawley and Sinclair (2003:372) found that none of the Australian mining companies examined had reached the Enduring Engagement stage, although at least one has some employees and leaders who were striving to reach that stage.

> "We believe that Glencore and other mining companies need to be working towards the Enduring Engagement phases in order to achieve a truly two way learning and enduring relationships rather than working in the lower scale or phases. To achieve this, companies need to understand our aspirations to maintain our cultural lores and customs and unite our peoples, and protect our cultural and heritage". *Spokespersons of the WTC people*

In recommending that Glencore strive to reflect Enduring Engagement with Wonnarua and other Aboriginal people in the Hunter region, we identify that this also reflects international standards of practice, as described by Lertzman and Vzedenburg (2005:239), who state:

> *"We argue that it is unethical to sacrifice the viability of Indigenous cultures for industrial resource extraction; it is ethical to engage with indigenous peoples in a manner consistent with their wishes and needs as they perceive them".*

In related studies, Shklar (1984, 1990) also argues that, rather than starting with human rights, we should put cruelty at the centre of any ethical analysis; and that the duty to minimize cruelty and suffering is an overriding and robust one because it evaluates conduct from the point of view of those on the receiving end. It allows that, for example, deprivation of contact with land might impose particularly heavy suffering on a people with a strong spiritual attachment to land.

Absence of Social Impact Assessment

A recent review of cultural heritage practice in the Hunter Valley found that the Environmental Assessment process failed to adequately recognise the links between connection to Country, preservation of cultural heritage and emotional and physical well-being; and instead that the social impact assessment process undertook a narrowly defined assessment focused almost exclusively on the economic benefits of coal mining, such as potential job growth, infrastructure and offsetting impacts through community based project funding (Sutton et al 2013:8).

Both governments and mining companies and their commissioned social impact assessment consultants appear to completely ignore or barely touch the surface of the issues relating to the correlation of impact to our culture and heritage and the impact to our emotional spiritual and

cultural wellbeing despite the well documented psycho-cultural-environmental effects of this impacts on Aboriginal people and a number of ethical standards to Aboriginal wellbeing study.

The State of the Environment Report (2011) also identifies the pressures on cultural heritage conservation outcomes. These pressures include climate change; population growth and economic growth create a range of general pressures on Australia's heritage and some specific pressures on natural, Indigenous and historic heritage.

Reviewing some of the national drivers which are reported to be causing conservation pressures on Indigenous cultural heritage further informed this ACHA's Project conservation management measures to be considered, especially in relation to the development of intergenerational equity management options and the context of external current and future conservation pressures such as climate change factors affecting erosion.

State Government Role and Responsibilities

When undertaking impact assessment to inform this report and ultimately whether the proposed project is approved to destroy our culture and heritage, we have considered the roles and responsibilities of the Department of Planning and infrastructure (regulatory function for Part 4 assessment of State significant projects) and the Office of Environment and Heritage (agency advisory role to the EA). We have considered the ethical approaches being applied in the assessment process and agree with the following statements from Organ (1994:4):

> *"It is questionable not only whether it is appropriate that the Service[5] should wield such power, but also if it is adequately carrying out its statutory duty, when the system under which it operates is leading to the silent, unseen destruction of sites on a daily basis throughout NSW.*
>
> *Whilst the Service, in collaboration with local Aboriginal communities, has achieved much in the preservation and protection of significant Aboriginal cultural heritage sites since 1974, it is not above criticism, and areas such as public education programs and identification of sites outside of national parks and reserves have been severely neglected.*
>
> *…..the NP&WS must be open to criticism and public accountability over its dealings with Aboriginal heritage sites and the 'collection' it administers through reports and information contained within its Sites Register.*
>
> *…..the whole process of enforcing the Act is, in the opinion of the author, surrounded by a bureaucratic veil of secrecy which makes access difficult for those not part of a system which involves the staff of NP&WS, professional archaeologists and anthropologists, and the few individual Aboriginal representatives responsible for such matters".*

In considering the role of the State in approving the destruction of our culture and heritage, the WTC support the following statement:

[5] referring to OEH, then known as the National Parks and Wildlife Service

"Many actions in society that could be interpreted as violations of indigenous rights and destruction of the environment are justified in the name of progress, growth, development, etc." (Sobrevila 2008:50).

In Australia, recent projects have seen the State approve mining projects in the face of Indigenous opposition about the impacts of mining of their traditional lands; in ways that dilute Indigenous rights and prioritise economic outcomes of a development over cultural and environmental protection (Altman 2009:24).

Summary of the impacts to our cultural values from the proposed Mount Owen expansion

The WTC has identified threats to our culture, our heritage, our people and our lore and customs as a result of development and mining in our traditional lands. Below is a summary of publically available statements and details of these to clearly identify the impacts of the proposal to expand mining at Mount Owen, provided in a holistic cultural and environmental context for the region.

The modern day Glencore Mount Owen is part of Wonnaruah Country and as such is of high cultural significance to our people. The proposed expansion of Glencore Mount Owen is a direct threat to our culture and heritage and this threat is fundamentally, philosophically and culturally opposed by the WTC native title claimant group.

If approved the Glencore Mount Owen project would adversely impact on our cultural and heritage values, our cultural and archaeological sites and cause further transformational change to our cultural landscape including the destruction of our cultural places, and threaten Indigenous animals and our flora used for medical food sources and habitat protection and ecosystem

The most profoundly positive aspect of this assessment for the Mount Owen proposed expansion project, is the ability to document our voices, our values, our history and our connections through this consultation and collation process. The act of doing so has contributed to our cultural values, our cultural identities our cultural and kin mapping and our cultural and spiritual wellbeing. This has a two pronged edge though as we are only afforded to record our culture and heritage for the purposes of a mining company wanting to detonate or dig up our culture and the very areas where we undertake a cultural values assessment is the area under immediate threat." *WTC spokespersons combined statement*

"It feels almost too late for the protection of cultural values in the modern day Mount Owen project area….so much is buggered. All we can do is to try and protect the areas most important to us …… regardless of whether they are in the direct excavation or infrastructure footprint…. Our families' experiences and survival at modern day Mount Owen needs to be told and the history books put into balance." *WTC spokespersons combined statement*

"The rate of approvals makes us breathless. Our mother earth…….. the land is hurting, our rivers and waterways are hurting, our animals and natural resources are hurting and our people are hurting. In New South Wales in particular, the assessment processes are more often than not just a machine for documenting what governments will approve mining companies to bulldoze what they are about to dig up or detonate." *The WTC spokespersons combined statement*

"We have a holistic view to water, land and culture and do not separate them. We understand the seasonal cycles and the importance of water management. Our cultural life ways including our movement within our Wonnarua boundaries was guided by water supply and seasonal resources. The weather and our rain patterning was and remains very important to us". *WTC claimant group combined statement*

"We are fundamentally and culturally opposed to open cut mining and associated activities which destroy our culture and heritage and work to make invisible our deeply spiritual and cultural values and ancestral footprints. We as custodians of the traditional lands and waters of Wanaruah country believe the actions of successive governments approving mining and multinationals cumulatively scarring the landscape is another form of cultural genocide to our people and our culture." *The WTC spokespersons combined statement*

"Our question is simple- how is cultural sustainability and intergenerational legacy being demonstrated, when so much of our culture and heritage across Wonnarua Country is approved for destruction?" *Combined statements WTC descendants combined statement*

Figure 14: Aerial view of the Hunter Valley



Aerial view of the Hunter Valley- transformational landscape change resulting in destroyed cultural integrity (The Greens 2010)

Summary of management measures

In summary, the WTC has developed a series of management measures after considering the Mt Owen project in a holistic local and regional context – reflecting both our Aboriginal Wonnarua worldview and the requirements of OEH guidelines. These management measures operate on three levels, being:

1. the proposed Glencore Mt Owen expansion area;
2. the Glencore Mt Owen complex; and
3. the Glencore operations that occur throughout our traditional lands of the Hunter Valley.

A summary of the proposed Glencore Mt Owen expansion area WTC management measures are presented below. Levels 2 and 3 are included in the non-disclosed management measures section of the WTC report. The WTC seek ongoing consultation with Glencore Mount Owen and Glencore operations relating to these recommendations.

Draft

Glencore Mt Owen proposed expansion

As previously stated, the WTC are fundamentally and culturally opposed to open cut mining and associated activities which destroy our culture and heritage and work to make hidden our deeply spiritual and cultural values and ancestral footprints. We as custodians of the traditional lands and waters of Wonnaruah Country believe the actions of successive governments approving mining and multinationals cumulatively scarring the landscape is another form of cultural genocide to our people and our culture.

However, should the Department of Planning decide to approve Mt Owen's proposed mining expansion, the WTC expect that these management measures will be implemented to best protect and care of our cultural heritage values:

1. The WTC request that Glencore Mount Owen develop, in collaboration with WTC and other Aboriginal registrants, protocols for the ongoing Aboriginal involvement in the Mount Owen project. This should reflect principles outlined in the Burra Charter, OEH guidelines and *Ask First* (ACH 2002), and include Aboriginal involvement in all stages of cultural heritage assessment and management – and importantly, as active participants in the decision making process – and should also include an active role in an integrated, holistic approach to biodiversity and cultural heritage management.
2. The WTC identify that reconciliation and healing is needed given the historic experiences, violence and adversity faced by our people. This will need to encompass the development of protocols that relate to these painful areas within the proposed expansion area, as well as discussion of broader approaches to recognition and reconciliation; such as the opportunity to create a documentary and record of the painful history of the area;
3. The WTC identify that Bowmans Creek is important culturally to our people refer to non-disclosed report. In proposing to expand the Hebden Road Bridge over Bowmans Creek, the WTC state that care must be taken not to impact the creek bed itself. It is understood that the current bridge design does not impact the creek bed, which the WTC request be maintained in any future revision or detailed design. Cultural monitoring of the Bowmans Creek bridge will be required by both men and women due to the location of the proposed Bridge and the areas importance;
4. The WTC assert that the potential unmarked grave site should be protected and not disturbed. We note with some concern that the potentiation unmarked grave occurs outside of the Project's disturbance boundary; however appears to have had some excavation which is highly offensive and considered an impact. The WTC also assert that this and any other unmarked potential grave could be a post-invasion Aboriginal burial and that any consideration or management approach should include the WTC and other Aboriginal registrants, and OEH where appropriate.
5. The undisturbed section of Betty's Creek needs protection. While we understand that Mount Owen Preliminary EA states that there would be more impact to Bettys Creek and summary information has been provided, if the expansion is approved, the WTC welcomes further detail on these impacts and how the remaining parts of Bettys Creek on Glencore owned

Draft

land will be protected. The WTC welcome further discussion however would seek to protect any and all creeks and waterways from impact.

6. The ability to walk on Country with our children and take footage of the project area prior to its destruction if the project expansion is approved would be appreciated.
7. Reflecting national and international standards and best practice approaches, the WTC assert that the Glencore Mt Owen expansion should adopt an integrated approach to land management (including our day and night sky, plants, animals and waterways), involving Aboriginal people and incorporating cultural knowledge in both biodiversity and cultural heritage assessment and management.
8. The WTC welcomes ongoing consultation regarding our cultural areas of importance. Refer to non-disclosed WTC report
9. The WTC identify the need to further map our kin and bring our families together given the human toll of the violence in the Mt Owen project area and surrounds, to build upon the extensive work undertaken already;
10. The Mt Owen project area is a place of changing cultural values, including post invasion violence and the killing of our people. Mount Owen personnel and their contractors – including archaeologists and heritage personnel – need to have a project specific training package developed in order that they are more aware of the sensitivities of the place in which they are working. Other cultural awareness measures should also be discussed, such as the daily raising of the Aboriginal flag, an annual Sorry Day ceremony and a cultural immersion day with Elders.
11. Further investigation is needed within the Glencore Mt Owen project area (and immediate vicinity if necessary) to identify whether the hanging tree described in a historic account is still there;
12. Protocols need to be developed in collaboration with WTC and other Aboriginal registrants to consider and respond to the management of burials and human remains, spanning pre- and post-invasion burials and the violent killing of our people. The project area should be treated like a crime scene with a heightened level of vigilance and sensitivity;
13. A protocol should be developed for the management of totemic remains should they be encountered within the Mount Owen Project area during future stages of the project;
14. The WTC assert that archaeological practice for the Glencore Mt Owen project needs to improve to better reflect Aboriginal registrant expectations, OEH guidelines and professional standards of practice. This should involve, among other improvements, improved collaboration with Aboriginal registrants, an increased awareness and appreciation of Aboriginal culture and cultural values to influence methodology and approach, the development of more meaningful research designs, and the replacement of simplistic formulaic assessments with assessments that seek to understand the complexity of our history, the depth of our connection, the challenges faced by our ancestors over vast periods of time, the uniqueness and diversity of our experiences, and the resilience and ingenuity of our people. The finding of a hearth along Bettys Creek and the likely use of the materials and lifeways of our people should be a focus of any future archaeological salvage and

Draft

research question development. The focus should be research questions relating to people and place and the materials used and adapted over time rather than dominated by the attributions of artefacts. Post invasion archaeology assessment and management approaches also needs to be improved to better reflect Aboriginal registrant expectations, OEH guidelines and professional standards of practice.

15. The naming of the expanded Bowmans Creek Bridge on Hebden Road should reflect the cultural importance of the area, with this report identifying Bowmans also identifying places of significance in the lands surrounding the planned bridge. The WTC recommend that further consultation be undertaken with traditional owners and knowledge holders to ensure that that the naming of the bridge is appropriate and relevant to the cultural values of Wonnarua people. It is also strongly asserted that the names of any of European settlers of the area are not used.
16. The WTC identify that the future rehabilitation of the Mt Owen project area should incorporate the cultural heritage values of the area, the social and spiritual needs of Wonnarua and other Aboriginal people, and integration of biodiversity and cultural heritage planning. For example, rehabilitation should allow for response to identified cultural values by relinking important waterways; through discussion with the WTC and other traditional owners.
17. Protocols for responding to new finds (archaeological sites and objects) should allow for selection of management outcomes based on cultural significance, encompassing social/cultural, historical, scientific and aesthetic as required by OEH guidelines and the Burra Charter. The WTC also specifically request that this protocol include a clear process for involving Aboriginal registrants, archaeologist/s and any other specialist consultant required, and that the protocol allows sufficient time for WTC and other parties to be informed of new find details and provide comment in response.
18. There needs to be more work done to develop safe corridors and tracking of why animals are moving from area to another especially in terms of accessing water, habitat which supports them or look at other areas where there have been tests done to look at what speeds at what time of the day or night is needed in order to reduce road kill. There needs to be a hotspot study for the new bridge area and Hebden Road and Wonnarua people need to be actively involved. The amount of large and small animals being killed along there (Hebden) is far too great including turtles, frogs, snakes and lizards, our large mammals.

Refer to the 'Management measures' section of the WTC restricted access report for detailed information on WTC recommendations.

Draft