

ASHTON COAL OPERATIONS



HERITAGE MANAGEMENT PLAN

ASHTON MINE COMPLEX

Version F

Date: April 2025



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1. INTRODUCTION

This Heritage Management Plan (HMP), previously known as the Archaeology and Cultural Heritage Management Plan (ACHMP), has been prepared to address the management and mitigation of potential impacts of the Ashton Mine Complex on Aboriginal cultural and historical heritage across the surface of the underground mine.

Cultural heritage sites associated with the North East Open Cut (NOEC) and other infrastructure areas within the Ashton Coal Project (ACP) have been managed and previously salvaged in accordance with approved Aboriginal Heritage Impact Permits (AHIP). As such they have not been re-addressed within this HMP.

The underground mine is approved as a multi-seam extraction, targeting four coal seams in descending order (Pikes Gully [PG] [completed], Upper Liddell [ULD], Upper Lower Liddell [ULLD] and Lower Barrett [LB]). Development of the underground mine commenced in December 2005 and is accessed through the southern wall of the Arties Pit under the New England Highway. Extraction of coal from all longwall panels (LW) within the PG Seam was completed during late 2013, and within the ULD Seam in mid-2017. Mining has subsequently descended to the ULLD Seam.

The Department of Planning and Environment (DPE) approved Modification 11 to the Ashton DA and Modification 10 to the Ravensworth Underground Mine (RUM) DA on 6 July 2022. These modifications allow for the integration of two neighbouring underground mines and enables Ashton Coal Operations Pty Limited (ACOL) to access and extract approved but unmined coal resources from a portion of the RUM. For operational and management purposes, this portion of the RUM will now form an integral part of the Ashton Mine Complex. The integration of the operations is described in **Section 1.1**.

This document has been prepared to address Schedule 3, Condition 34 of Development Consent DA 309-11-2001-i (dated 6 July 2022) (DA) (Ashton DA) and Schedule 3, Condition 26 of DA 104/96 (Ravensworth Underground Mine [RUM]), (dated 6 July 2022) (RUM DA).

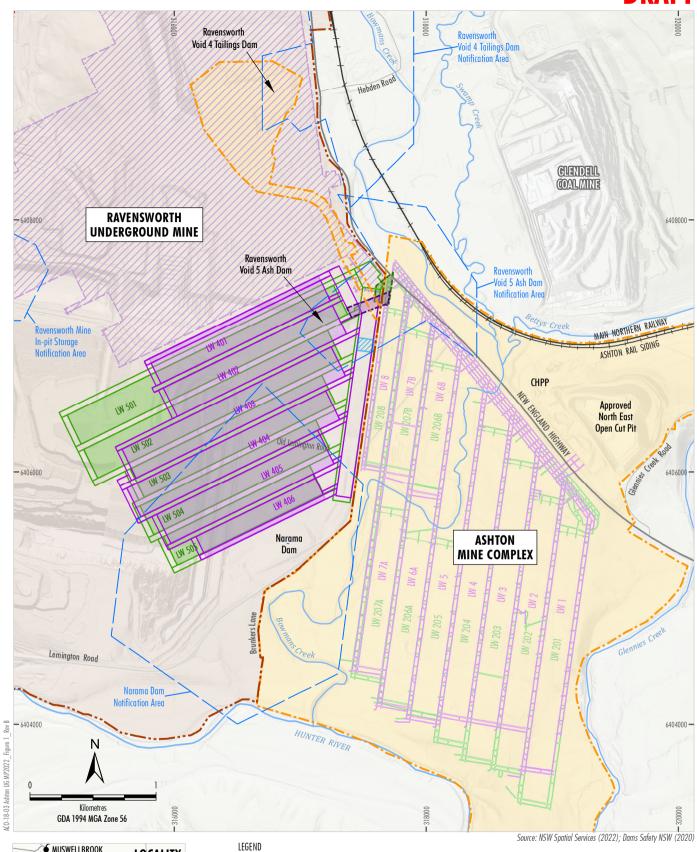
This HMP consolidates the management strategies developed in consultation with the Aboriginal and Historical Heritage Community, as documented within previous management plans, and the requirements of the associated AHIPs, DAs and Extraction Plans, into one concise document.

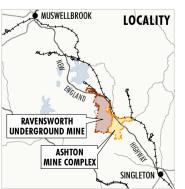
1.1 Integration of Ashton Underground Mine with Ravensworth Underground Mine

The Ashton Underground Mine and the RUM share a common mining lease boundary and the approved underground mining areas are separated (at their closest) by approximately 45 metres (m) (Figure 1).

Modification 11 to the Ashton DA and Modification 10 to the RUM DA enable the integration of the Ashton Underground Mine and RUM, and for ACOL to access and extract approved but unmined coal resources from a portion of the RUM. The modifications allow for connections to be made between the two neighbouring mines via non-subsiding first workings (**Figure 2**). ACOL will utilise its existing longwall mining equipment and employees to mine the PG and Middle Liddell coal seams at the RUM.

DRAFT





Dam Notification Area <u>Ashton Mine Complex</u> Ashton Coal Project Development C

Ashton Coal Project Development Consent Boundary Pikes Gully Seam Longwall Layout Upper Lower Liddell Seam Longwall Layout

Ravensworth Underground Mine
Ravensworth Underground Mine Development Consent Boundary
Existing Shaft 5 Location

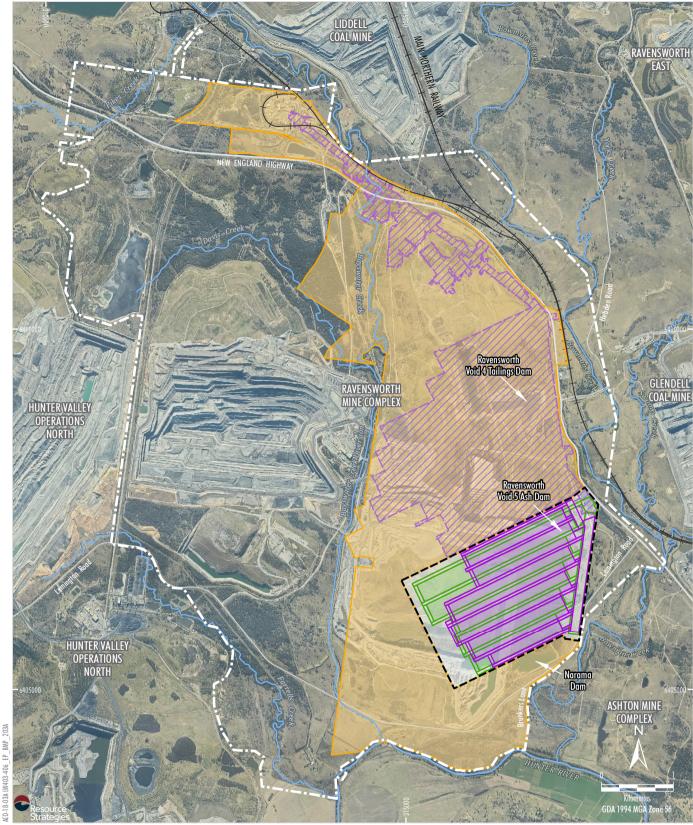
Completed Pikes Gully Seam Workings Indicative Pikes Gully Seam Longwall Layout Indicative Modified Pikes Gully First Workings

Indicative Modified Pikes Gully First Workings Indicative Middle Liddell Seam Longwall Layout Indicative Middle Liddell Seam First Workings Note: The approved Upper Liddell and Lower Barrett Seams at the Ashton Coal Project and approved Lemington and Barrett Seams at the Ravensworth Underground Mine are not shown on this figure.



ASHTON UNDERGROUND MINE

Locality Plan and General Arrangement



LEGEND

Ravensworth Open Cut Operations Development Consent Boundary

Ravensworth Underground Mine

Completed Pikes Gully Seam Workings

Indicative Pikes Gully Seam Longwall Layout

Indicative Middle Liddell Seam Longwall Layout

Ravensworth Underground Mine - Management Responsibility under Development Consent DA 104/96

Operational Area to be managed by Resource Pacific Pty Ltd (Glencore) #

Operational Area to be managed by Ashton Coal Operations Ltd (Yancoal) $^{\#}$

Source: NSW Spatial Services (2021) Orthophoto: Ravensworth Mine Complex (2021)



RAVENSWORTH UNDERGROUND MINE LONGWALLS 403 TO 406 EXTRACTION PLAN

ACOL-operated RUM's Management Responsibility Under Development Consent DA 104/96

Figure 2

[#] The Ravensworth Underground Mine includes ancillary infrastructure and surface disturbance associated with underground mining including, but not limited to, ventilation, gas management and water management infrastructure and subsidence monitoring, management and remediation activities.

 $[\]hat{\ }$ This area is called the 'ACOL-operated portion of the RUM' in the Modification Report.



ACOL will handle, process and transport coal from the RUM in the same manner it handles coal from its Ashton Underground Mine. ROM coal will be transferred via underground conveyors to the Ashton Mine Complex and through to the Ashton pit top, via its existing coal clearance system. ROM coal will be processed at Ashton's Coal Handling and Preparation Plant (CHPP) prior to being loaded onto trains for transportation to market using the existing rail infrastructure.

Rejects and tailings generated from the processing of the RUM ROM coal will be emplaced in the existing NEOC void and Ravensworth Void 4 Tailings Dam.

Water and gas from the RUM will also be transferred to the ACP to be managed within the existing water and gas management system.

The area of the RUM that will be managed and operated by ACOL under the RUM DA is shown on Figure 2 (and hereafter referred to as the ACOL-operated RUM¹).

ACOL will implement the management, monitoring and reporting outlined in this HMP during mining of the ACOL-operated RUM.

The remaining areas of the approved RUM (i.e. outside of the ACOL-operated RUM) including the completed PG Seam LW1 – 9 as well as open cut mining activities associated with the Ravensworth Operations Project (Project Approval 09-0176) are managed in accordance with the Ravensworth Environmental Management Strategy (and associated management plans) (EMS) and the RUM Rehabilitation Management Plan (RMP).

Regular meetings will be held between ACOL and Glencore to discuss the following:

- planned ACOL and Glencore activities within the ACOL-operated RUM;
- potential interactions between the Ravensworth Operations Project and ACOL-operated RUM;
- environmental monitoring results relevant to the ACOL-operated RUM and potential cumulative impacts;
- data and report sharing.

In addition, the Built Features Management Plans required under Condition 6, Schedule 3 of the RUM DA will address interactions with Glencore's and AGL's assets and operations.

1.2 Structure of this Plan

The remainder of this HMP is structured as follows:

Section 2: Outlines the statutory requirements of the DAs as it relates to cultural and historical heritage

and subsidence management.

Section 3: Outlines the objectives of this management plan and sets out the performance measures

and performance indicators relevant to the management of cultural and historical heritage

within the ACP and ACOL-operated RUM.

Section 4: Describes the known cultural and historical heritage sites within the ACP and

ACOL-operated RUM and potential impacts and consequences resulting from subsidence.

¹ The integration is referred to as the ACOL-operated portion of the RUM in the Ashton and Ravensworth Modification Reports.

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Section 5:	Details the propose	ed consultation, managem	nent, and monitoring	g actions relevant to the

management of predicted impacts.

Section 6: Summarises the responsibilities, reporting and auditing processes under this HMP.

Appendix A Lists relevant Development Consent requirements.

Appendix B Sets out methodology for the management of cultural heritage sites.

Appendix C Sets out methodology for the monitoring of cultural heritage sites.

Appendix D Copies of correspondence documenting stakeholder consultation.

Appendix E Summary of relevant measures contained within the Conservation Agreement.

Appendix F Copy of AHIP #1131017 LW1 – 4 Eastern Panels.

Appendix G Copy of AHIP#1130976 LW5 – 8 Western Panels.



2. STATUTORY REQUIREMENTS

This document has been prepared in accordance with Schedule 3, Conditions 32 and 34 of the Ashton DA and Schedule 3, Conditions 6 and 26 of the RUM DA.

The DA requirements relevant to this HMP are collated in **Appendix A**.

The requirements for the preparation of an HMP are outlined in Schedule 3, Condition 34 of the Ashton DA, which requires ACOL to prepare a HMP to:

"...manage the potential impacts of the development".

Further, Condition 32(h) of Schedule 3 in the Ashton DA requires that ACOL prepare an Extraction Plan for all second workings on site and that the Plan will include a HMP, which has been prepared in consultation with the Office of Environment and Heritage (OEH) (now Heritage NSW [HNSW]) and relevant stakeholders for Aboriginal Heritage to:

"...manage the potential impacts and consequences of subsidence on heritage sites or values".

This HMP has been prepared to address Schedule 3, Condition 32(h) of the Ashton DA and Schedule 3, Condition 6(i) of the RUM DA with respect to specific management of environmental consequences resulting from longwall mining in the ULD and ULLD seams at the ACP and mining of LW401 – 404 of the PG seam at the ACOL-operated RUM.

The relevant DA conditions are listed in **Appendix A** including a cross-reference to where in this document they have been addressed.

2.1 Aboriginal Heritage Impact Permits

The current AHIP's held for the ACP and ACOL-operated RUM are:

- AHIP #1131017 (**Appendix F**) issued on 23 December 2011, and as amended on 14th July 2021, for the eastern underground panels: LW1 4. This AHIP also covers the area that will be subsided by LW201 204 in the ULLD Seam;
- AHIP #1130976 (Appendix G) granted by the Land and Environment Court ([2011] NSWLEC 1249) in August 2011, encompassing the western underground panels LW5, LW6A, LW6B, LW7A, LW7B and LW8, and the Bowmans Creek diversion. LW205 in the ULLD seam is also within this area; and
- AHIP #1121100 issued on 20 December 2010 to Ravensworth Operations Pty Limited, comprises the ACOL-operated RUM.

ACOL will obtain an AHIP for the sites that will be impacted by the mining of the ACOL-Operated RUM prior to subsidence impacting the sites. An Aboriginal Cultural Heritage Assessment (ACHAR) will be prepared to support the AHIP application.



2.2 Development Consent

The Ashton DA was initially granted for the ACP by the then Minister for Planning in October 2002. The approval has been subsequently modified on a number of occasions.

Schedule 5, Condition 6 of the Ashton DA and Schedule 4, Condition 3 of the RUM DA requires the review and revision of the Plans within 3 months of the submission of an incident report, Annual Review, Audit (as specified within the DA) or any modification to the conditions of the DA.

This HMP is specifically required by and has been prepared in accordance with Schedule 3, Conditions 32 and 34 of the Ashton DA and Schedule 3, Conditions 6 and 26 of the RUM DA.

2.3 Extraction Plans

Approved Extraction Plans provide a framework for the management of subsidence impacts associated with ACOL underground mining activities.

The various approved Extraction Plans consider the potential impacts of the second workings associated with longwall mining on cultural heritage. It also outlines ACOL's statutory requirements relating to monitoring and management of subsidence impacts on cultural heritage sites within the underground operations, as well as consultation, monitoring and reporting requirements. The current approved Extraction Plans relevant to this plan include:

- Extraction Plan for ULD Seam LW Panel 1 4;
- ULD Seam Extraction Plan for LW105 107; and
- Extraction Plan for LW201 204 in ULLD Seam; and
- Extraction Plan for LW205 208 in ULLD Seam.

These Extraction Plans identify the management strategies for subsidence impacts on natural and built features from secondary extraction, including heritage sites and values.

ACOL has prepared an Extraction Plan for the PG Seam longwalls at the ACOL-operated RUM. The Extraction Plan has been prepared in accordance with Schedule 3, Condition 6 of the RUM DA and included a revision to this HMP.

This HMP has also been updated to include the mitigation, management, monitoring and reporting requirements for heritage sites and values potentially impacted by mining of the ULD and ULLD seams at the ACP and PG Seam at LW403 – 406 at the ACOL-operated RUM.

2.4 Conservation Agreement

A Conservation Agreement (dated 16 September 2010) was made between ACOL and the NSW Minister for the Environment under the *National Parks and Wildlife Act 1974* (NP&W Act). The Conservation Agreement covers a parcel of land equal to 65.66 hectares in the south-east of the ACP site (the southern woodland conservation area) and in accordance with Consent Condition 3.30 "...shall be to protect and conserve Aboriginal cultural heritage, and biodiversity, within the conservation area. The Conservation Agreement, together with the environmental management plans for the ACP site, constitutes the Plan of Management for the conservation area, as summarised in **Appendix E**.



3. OBJECTIVES AND PERFORMANCE MEASURES

3.1 Objectives

Objectives under the ACOL EMS and DAs for the cultural heritage values of the site are to:

- To identify, as far as practical, all Aboriginal and historical heritage sites and values.
- To consult and actively involve relevant Aboriginal community stakeholders in the management of Aboriginal cultural heritage sites and objects.
- To advise ACOL staff and contractors of their personal responsibility in avoiding, managing and mitigating impacts on Aboriginal cultural and historical heritage.
- To provide a process for ACOL staff and contractors to follow in managing Aboriginal cultural and historical heritage during their day-to-day operational activities at the ACP and ACOL-operated RUM.
- To avoid or mitigate disturbance to Aboriginal cultural resources and historical heritage as far as practicable.
- To provide suitable conservation measures to ensure on-going protection to those Aboriginal objects and historical heritage sites not assessed as being impacted by the projects.
- To ensure ACOL's commitment to best practice in the management and mitigation of Aboriginal cultural and historical heritage is reflected in its environmental management policies and protocols.
- To meet the conditions of DAs and associated modifications.

3.2 Performance Measures

Performance measures for cultural heritage values have been developed for the ACP and ACOL-operated RUM and are presented in **Table 1**.

Monitoring will be used to assess the impact of the ACP and ACOL-operated RUM against the performance measures and indicators detailed in **Table 1** (refer to **Section 5**). If monitoring and assessment indicates that a performance indicator has been exceeded, or is likely to be exceeded, ACOL will implement the contingency measures outlined in **Section 6.1**.



Table 1: Preliminary Performance Measures

Criteria	Performance Measure (A)	Indicator of Success (B)	Key Assessment Considerations (C)
General			
Aboriginal cultural heritage	Aboriginal cultural heritage values are conserved in accordance with ACOL's statutory requirements.	Works are undertaken in accordance with the ACP RMP and the relevant HMP and AHIP.	 Does the monitoring and assessment indicate that a performance measure or Development Consent condition has been exceeded, or likely to be exceeded? Does this exceedance increase the risk of any objects being impacted?
		Salvage of archaeological objects undertaken prior to impact in accordance with the approved AHIP.	What is the nature of the risk? Cracking Ponding
		Any new sites identified during the monitoring program are assessed for impacts and any management recommendations are consistent with the relevant HMP and AHIP conditions.	 Subsidence remediation works 4) What are the potential factors that may have contributed to the risk i.e. subsidence, inadequate management measure or natural processes? 5) What actions, if any are required to mitigate and/or minimise the potential for future impacts and monitor the long-term impacts of the exceedance?
Historical Heritage	Historical heritage values are conserved in accordance with ACOL's statutory requirements.	Works are undertaken in accordance with the ACP RMP and this HMP. Any new sites identified during the monitoring program are assessed for impacts and any management recommendations are consistent with the relevant HMP and legislative requirements.	 Does the monitoring and assessment indicate that a performance measure or Development Consent condition has been exceeded, or likely to be exceeded? Does this exceedance increase the risk of any values being impacted? What is the nature of the risk? Cracking Ponding Subsidence remediation works What are the potential factors that may have contributed to the risk i.e. subsidence, inadequate management measure or natural processes? What actions, if any are required to mitigate and/or minimise the potential for future impacts and monitor the long-term impacts of the exceedance?

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Criteria	Performance Measure	Indicator of Success	Key Assessment Considerations
Waterhole Site	(A)	(B)	(C)
	Negligible impact.	This site should not be impacted by the life of mine activities. The indicator of success is the retention of the Waterhole site in a stable condition upon completion of mining.	 Does the monitoring and assessment indicate that a performance measure or Development Consent condition has been exceeded, or likely to be exceeded? Does this exceedance increase the risk for harm to the site? What is the nature of the risk? Surface disturbance Poor land management What are the potential factors that may have contributed to the risk i.e. subsidence, inadequate management measure or natural processes? What actions, if any are required to mitigate and/or minimise the potential for future impacts (i.e. management of natural processes, such as water runoff) and monitor the long-term impacts of the exceedance?
Glennies Creek Si	te		
	The site remains relatively undisturbed at the completion of mining.	The majority of the site remains in situ and in a stable condition. Where impacts have occurred, they have been managed in accordance with an appropriate AHIP.	 Does the monitoring and assessment indicate that a performance measure or Development Consent condition has been exceeded, or likely to be exceeded? Does this exceedance increase the risk for harm to the site? What is the nature of the risk? Cracking Ponding Subsidence remediation works Poor land management practices resulting in surface impacts What are the potential factors that may have contributed to the risk i.e. subsidence, inadequate management measure or natural processes? What actions, if any are required to mitigate and/or minimise the potential for future impacts and monitor the long-term impacts of the exceedance?

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Criteria	Performance Measure	Indicator of Success	Key Assessment Considerations
	(A)	(B)	(C)
Other Aboriginal herita	ge sites overlying longwall minir	ng area	
Aboriginal Heritage Sites located over the longwall mining area	Managed according to the methodology prescribed in this HMP and relevant AHIP.	Sites managed in accordance with the relevant AHIPs over the life of the mine.	 The archaeological objects are salvaged prior to being harmed. Sites outside impact zones are conserved in situ and where appropriate protected by fencing and management strategies. Does the monitoring and assessment indicate that a performance measure or Development Consent condition has been exceeded, or likely to be exceeded? Does this exceedance increase the risk of any objects being impacted? What is the nature of the risk? Cracking Ponding Subsidence remediation works What are the potential factors that may have contributed to the risk i.e. subsidence, inadequate management measure or natural processes? What actions, if any are required to mitigate and/or minimise the potential for future impacts and monitor the long-term impacts of the exceedance?

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4. EXISTING ENVIRONMENT AND POTENTIAL IMPACTS

4.1 Known Aboriginal Heritage Sites

Ashton Coal Project

Known Aboriginal heritage sites within the area impacted by subsidence associated with LW1 - 8 in the ULD Seam and LW201 - 208 in the ULLD seam are summarised in **Table 2**. The locations of all recorded Aboriginal Heritage Information Management System (AHIMS) sites and AHIP boundaries associated with the ACP are shown in **Figure 3a**.

There are three identified sites of particularly high scientific and cultural significance at the ACP:

- 1. Glennies Creek site (37-3-0541 & 37-3-0549);
- 2. Oxbow site (37-3-501,37-3-502, 37-3-503, 37-3-0511 & 37-3-0006); and
- 3. Waterhole site (37-3-0500).

Glennies Creek site is to be managed within a conservation area with minor impacts from underground mining and associated activities. The Waterhole site is to be retained with no disturbance from underground mining activities. The Oxbow site has been partially impacted by underground mining and associated activities and has been managed in accordance with AHIP #1131017.

Table 2 also identifies the predicted level of impact and/or status of any impacts for each known Aboriginal site across LW1 - 8 as a result of ULD mining and LW201 - 208 as a result of ULLD mining. The potential impacts to sites generally arise via the following mechanisms:

- Cracking and/or crack remediation: The ground may crack as a result of the underground goaf collapse. Cracking associated with secondary extraction is predicted to require remediation. Generally, where cracking requires repair, this is achieved with the ripping of the crack with a bulldozer/grader.
- **Knick points and rilling:** Changes in slope can cause changes in erosion patterns and may hasten the movement of knick points upslope.
- **Ponding:** Ponds may develop where subsidence forms depressions. Ponding will be assessed once it has been identified and filling of the depression or drainage works (i.e. construction of drainage channels or similar such alteration of the landform undertaken to maintain a free draining landform).
- **Development of surface infrastructure**: To facilitate the underground mining operations the installation of various types of surface infrastructure will be required. These may include gas drainage bores and associated infrastructure, access tracks, dewatering facilitates, ventilation shafts, etc.

Surface cracking may impact objects located directly above the crack however this is not usual. It is more common for the remediation of cracks to impact sites as the process of ripping the area impacts a broader surface. Surface cracks due to secondary extraction are anticipated to be in the order of several hundred millimetres in the areas of shallower overburden and decrease in width with increased depth of cover.



The subsidence modelling for the ULD seam predicted surface impacts (cracking, tilts and strains) two to three magnitudes greater than the PG Seam (SCT, 2011). Surface impacts from mining of the ULLD seam in LW201 – 204 are not significantly different to those experienced in the previous two seams. For mining of LW205 – 208 in the ULLD seam, impacts to Aboriginal archaeological sites are consistent with the approved impacts outlined in the DAs and relevant AHIPs. For management purposes, it is anticipated that archaeological sites overlying the extraction area will be impacted, to varying degrees, by the remediation of subsidence. All remediation methods, such as ripping of cracks, filling of ponding or earthworks to control erosion, will be reassessed for its potential to impact sites prior to implementation as discussed in **Section 5**.

Insite Heritage (2020) prepared an Archaeological Assessment for inclusion in the Extraction Plan for LW205-208, which can be referred to for further details on predicted subsidence impacts from secondary extraction in the ULLD seam.

ACOL-operated RUM

Known Aboriginal heritage sites within the subsidence impact area associated with the ACOL-operated RUM are summarised in **Table 3** and displayed in **Figure 3b**. Aboriginal heritage site RUM-OS1 referenced in Schedule 3, Condition 26(b) of the RUM DA has been previously salvaged as part of the historical RUM operations (Ravensworth Operations, 2018) and is not included in **Table 3**. ACOL is responsible for the management of the ACOL-operated RUM and the AHIMS sites and AHIP boundaries associated with the area. Specifically, ACOL will gain the relevant permits for extant and partially extant Aboriginal heritage sites located near the PG Seam longwall panels (i.e. PG Seam LW403 – 406 for the ACOL-operated RUM) prior to secondary extraction that would impact these sites. The potential impacts to sites generally arise via the following mechanisms:

- Cracking and/or crack remediation: The ground may crack as a result of the underground goaf collapse. Cracking associated with secondary extraction is predicted to require remediation. Generally, where cracking requires repair, this is achieved with the ripping of the crack with a bulldozer/grader.
- **Knick points and rilling:** Changes in slope can cause changes in erosion patterns and may hasten the movement of knick points upslope.
- **Ponding:** Ponds may develop where subsidence forms depressions. Ponding will be assessed once it has been identified and filling of the depression or drainage works (i.e. construction of drainage channels or similar such alteration of the landform undertaken to maintain a free draining landform).
- **Development of surface infrastructure**: To facilitate the underground mining operations the installation of various types of surface infrastructure will be required. These may include gas drainage bores and associated infrastructure, access tracks, dewatering facilitates, ventilation shafts, etc.

Surface cracking may impact objects located directly above the crack however this is not usual. It is more common for the remediation of cracks to impact sites as the process of ripping the area impacts a broader surface. Surface cracks due to secondary extraction are anticipated to be in the order of several hundred millimetres in the areas of shallower overburden, and decrease in width with increased depth of cover.

The Study Area of the ACOL-operated RUM (**Figure 3b**) is generally determined as the area within a distance equal to an angle of draw measured form the outermost goaf edge of the planned longwall panel voids of:

- 45 degree (°) (1 times depth of cover) over waste rock fill material; or
- 26.5° (0.5 times depth of cover) over natural ground.

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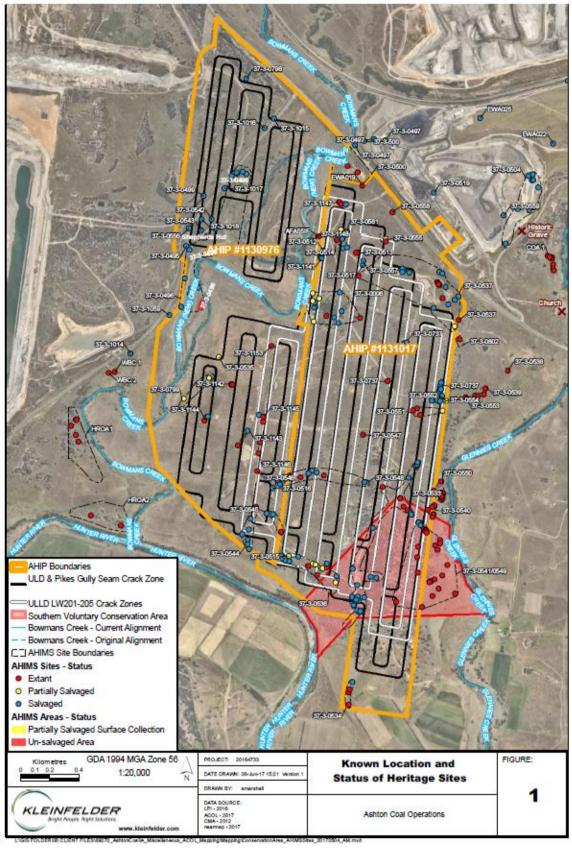
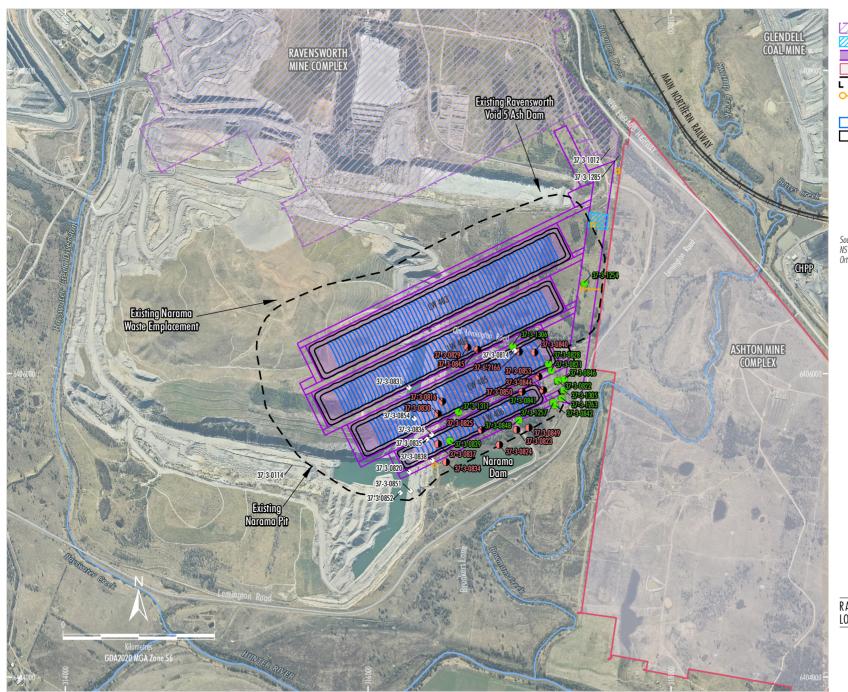


Figure 3a: Known Locations of Archaeology on ACP

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Source: Stratum Archaeology (2024); SCT (2021); NSW Spatial Services (2023) Orthophoto: Ravensworth Mine Complex (2021)

> **YANCOAL** 充煤澳大利亚有限公司

RAVENSWORTH UNDERGROUND MINE LONGWALLS 403 TO 406 EXTRACTION PLAN

Known Locations of Heritage Sites of ACOL-operated RUM



Table 2: Sites Recorded within the ACP and Predicted/ Status of Impact of Subsidence

Note: These details are current at the time of writing of this management plan. Some sites may have been salvaged, or further defined subsequent to the development of this plan, where applicable current AHIMS records will be consulted.

AHIMS No.	Site Name	Site Type	Archaeological Significance	Description (incl. status)	Predicted Impact *	Management # (refer to Table 4 and Appendix B)
	EWA 82	Open camp site		Site comprises 2nd (pre European) terrace		
	LW4.1, LW5.2	with PAD PAD extends from LW4.3 in south to New England Highway.	The site varies	with 20% visibility. Includes lenses of artefacts and isolated finds. The recording		Managed in accordance with AHIP #1130976.
	LW4.2, LW4.3, LW4.4,LW5.1		from low significance to potential high	includes an area of potential late Pleistocene, early Holocene landform. Site has been tested and found to be deflated	High Will be impacted by subsidence	
	EWA 80	Isolated find	significance in the area of the	older surface with Holocene artefacts overlying deposit.	remediation and surface mine	
	EWA 81	Isolated find	possible	Status – eastern portion partially salvaged	activities.	
37-3-0496	FWA 89 Isolated find	Pleistocene PAD.	by ACOL and western portion salvaged by Xstrata			
(includes: 37-3-0542, 37-3-0543, 37-3-0556)		PAD	Potential High	Potential late Pleistocene, early Holocene PAD located immediately west of Brunkers Lane and north of the New England Hwy. Status - Partially salvaged Site subject to archaeological test investigations. Tested, found to be Holocene artefacts over colluvium.	High Impacted by LW7 and surface mine activities.	Managed in accordance with AHIP #1130976.
	EWA 80 Isolated find Low	As above in 100 square metres (m²) exposure. Collected by ACOL	Medium - High			
	EWA 81	Isolated find	Low	Associated with terrace above in 100 m ² exposure. Collected by ACOL	Will be impacted by subsidence remediation and surface mine	Managed in accordance with AHIP #1130976.
	EWA 89	Isolated find	Low	Terrace in 150 m ² exposure. Collected by ACOL	infrastructure	

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AHIMS No.	Site Name	Site Type	Archaeological Significance	Description (incl. status) Predicted Impact *		Management # (refer to Table 4 and Appendix B)
37-3-0535	EWA 97	Artefact scatter	Moderate	Terrace with <10% visibility. Salvaged		
37-3-0799	LW2.1	Artefact scatter	Moderate	Terrace in exp with 50% visibility. Partially salvaged	Medium - High	
37-3-0798	EW 15	Artefact scatter	Low	Salvaged Located in Macquarie Generation land in 3 m x 3 m eroded area on ridge top. Collected by ACOL	Will be impacted by subsidence remediation and surface mine infrastructure.	Managed in accordance with AHIP #1130976.
37-3-0546	EWA 52	Isolated find	Low	Salvaged		
37-3-0544	EWA 50	2 artefacts	Low	Partially Salvaged		
37-3-0545	EWA 51	Artefact scatter	Low	Partially salvaged. Loci of site RS9 extant	High Site located within subsidence crack zone for ULLD.	Managed in accordance with AHIP #1130976 and #1131017 and this Plan
37-3-0548	EWA 57	Isolated find	Low	Partially salvaged. Loci within ULD subsidence crack zone salvaged	High Site located within subsidence crack zone for ULLD. Parts of site may also be affected by predicted ponding.	Manage according to AHIP # 1131017 and this Plan.
37-3-500	Waterhole Site	Artefact scatter and grinding grooves	High	Artefact scatter and Grinding Grooves located on edge of waterhole on Bowmans Creek.	No Impact	Fence and monitor for impacts. Manage natural processes such as sheet erosion without impacting on the cultural values.
37-3-0502 37-3-0501 37-3-0503 37-3-0511	Oxbow Site	Artefact scatter	High	Artefact scatter located east of the Bowmans Creek oxbow. Partially Salvaged	High Will be impacted by remediation works and surface activities.	To be salvaged in accordance with AHIP #1131017.

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37-3-0006	Camberwell Bowman's Creek (Oxbow Site)	Artefact scatter	High	Previously linked with the Waterhole Site – AHIMS information amended	High Will be impacted by remediation works and surface activities.	To be salvaged in accordance with AHIP #1131017.
37-3-0581	Homestead Site	Artefact Scatter	Low	Partially Salvaged. Site located within subsidence crack zone for ULD seam	High Will be impacted by remediation works and surface activities.	To be salvaged in accordance with AHIP #1131017.
37-3-0541, 37-3-0549	Glennies Creek Site	Artefact scatter and grinding grooves	High	Site located within the Southern Woodland Conservation Area Partially salvaged – loci within subsidence crack zone for ULD & ULLD salvaged	Potential subsidence remediation impacts to the outer limits of the currently defined artefact scatter.	To be salvaged in accordance with AHIP #1131017.
37-3-0537	High Ridge Workshop Site	Artefact scatter	High	Partially salvaged	High Will be impacted by subsidence remediation works and surface activities.	To be managed or salvaged in accordance with AHIP #1131017.
37-3-0533	Ridge Peak Site	Artefact scatter	High	Partially salvaged	High Will be impacted by subsidence remediation works and surface activities.	To be managed or salvaged in accordance with AHIP #1131017.
37-3-0536	High Spur Site	Artefact scatter	High	Partially salvaged	High Will be impacted by subsidence remediation works and surface activities.	Where impacts are identified, managed, or salvaged in accordance with AHIP #1131017.
37-3-0547	EWA 56	Isolated find	Low	Salvaged	High Will be impacted by remediation works and surface activities.	To be managed or salvaged in accordance with AHIP #1131017.

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37-3-0737	EWA 77	Isolated find	Low	Partially salvaged	Medium Outside of subsidence impact area although may be impacted by track upgrade works.	To be managed or salvaged in accordance with AHIP #1131017.
37-3-0554	EWA 78	Isolated find	Low	Salvaged	High Site located within predicted crack zone for ULD and ULLD seams and on upgraded track way.	To be managed or salvaged in accordance with AHIP #1131017.
37-3-0557	EWA 91	Isolated find	Low	Salvaged	High Will be impacted by remediation works and surface activities.	To be managed or salvaged in accordance with AHIP #1131017.
37-3-0495	MOIF3	Isolated find	Low	Salvaged Collected by Xstrata	N/A	Managed in accordance with AHIP #1130976 and Ravensworth ACHMP.
37-3-1014	REA 197	Artefact Scatter	Moderate	Salvaged Collected by Xstrata	N/A	Managed in accordance with AHIP #1130976 and Ravensworth ACHMP.
37-3-1015	REA 143	Artefact Scatter	Moderate	Salvaged Collected by Xstrata and collection and test pits by ACOL	N/A	Where impacts are associated with the Ravensworth project - to be managed in accordance with the Ravensworth ACHMP.
37-3-1016	REA 144	Artefact Scatter	Moderate	Salvaged Partial collection Xstrata Remainder collected by ACOL	N/A	Managed in accordance with AHIP #1130976 and where impacts are associated with the Ravensworth project managed in accordance

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						with the Ravensworth ACHMP.
37-3-1017	REA 145	Artefact Scatter	Moderate	Salvaged Partial collection Xstrata Remainder collected by ACOL	N/A	Managed in accordance with AHIP #1130976 and where impacts are associated with the Ravensworth project managed in accordance with the Ravensworth ACHMP.
37-3-1018	REA 146	Artefact Scatter	Moderate	Collected by Xstrata	N/A	Where impacts are associated with the Ravensworth project managed in accordance with the Ravensworth ACHMP.
37-3-1148	AFA55	Artefact Scatter	Moderate	Partially Salvaged Site located within ULD & ULLD subsidence crack zone. Partial collection for Eastern Diversion	High Will be impacted by subsidence remediation and surface mine activities.	Managed in accordance with AHIP #1130976.
37-3-0499	ASH 3	Artefact Scatter	Low	Collected by ACOL	N/A	Managed in accordance with AHIP #1130976.
37-3-1153	AFA 51	Artefact Scatter	Low	Extant	High Will be impacted by subsidence remediation and surface mine activities.	Managed in accordance with AHIP #1130976.
37-3-1141	AFA 21, AFA22, AFA 23, AFA 24	Artefact Scatter	Low	Salvaged Site located within subsidence crack zone for ULD and ULLD seams	High Will be impacted by subsidence remediation and surface mine activities.	Managed in accordance with AHIP #1130976 and 1131017. Site has been salvaged

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AHIMS No.	Site Name	Site Type	Archaeological Significance	Description (incl. status)	Predicted Impact *	Management # (refer to Table 4 and Appendix B)
37-3-1059	REA 187	Artefact Scatter	Low	Salvaged Collection by Xstrata. Surface collection and test pits for portion of site located within Bowmans Creek Diversion project area by ACOL	N/A	Managed in accordance with AHIP #1130976 Where impacts are associated with the Ravensworth project managed in accordance with the Ravensworth ACHMP.
37-3-0516	Ash 20	Artefact Scatter	Moderate	Salvaged	Medium Moderate chance that impacts requiring remediation will occur.	Managed in accordance with both AHIP #1130976 and 1131017. Site has been salvaged
37-3-1146	AFA50	Artefact Scatter	Low	Extant	High Will be impacted by subsidence remediation and surface mine activities.	Managed in accordance with AHIP #1130976.
37-3-1143	AFA 44	Artefact Scatter	Low	Extant	High Will be impacted by subsidence remediation and surface mine activities.	Managed in accordance with AHIP #1130976.
37-3-1145	AFA48, AFA49, AFA58	Artefact Scatter	Low	Extant	High Will be impacted by subsidence remediation and surface mine activities.	Managed in accordance with AHIP #1130976.
37-3-1144	AFA45, AFA46, AFA47	Artefact Scatter	Low	Extant	Medium Moderate chance that impacts requiring remediation will occur.	Managed in accordance with AHIP #1130976.

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37-3-1142	AFA25, AFA26, AFA59 AFA60	Artefact Scatter	Low	Extant	High Will be impacted by subsidence remediation and surface mine activities.	Managed in accordance with AHIP #1130976.
37-3-0551	Ashton EWA69	Artefact Scatter	Low	Partially Salvaged. Portion of site salvaged for access track upgrade	Medium Outside of subsidence impact area although may be impacted by track upgrade works.	Managed in accordance with AHIP #1131017.
37-3-0552	Ashton EWA70	Artefact Scatter	Low	Partially Salvaged. Portion of site salvaged for access track upgrade	Medium Outside of subsidence impact area although may be impacted by track upgrade works.	Managed in accordance with AHIP #1131017.
37-3-0555	Ashton EWA78	Artefact Scatter	Low	Partially Salvaged Site located within predicted subsidence crack zone for ULLD seam. Portion of site salvaged for ULD subsidence crack zone	High Moderate chance that impacts requiring remediation will occur.	Managed in accordance with AHIP #1131017.
37-3-0558	Ashton EWA96	Isolated artefact	Low	Extant	Medium Moderate chance that impacts requiring remediation will occur.	Managed in accordance with AHIP #1131017.
37-3-0534	Ashton Hunter River slope site	Artefact scatter, Hearth	High (part of site)	This artefact scatter was the only example where there were scattered heat retainers and a well formed hearth with charcoal. Potential for sub surface artefacts. Partially salvaged. Collection of artefacts on access track made	Medium - High May be impacted by road upgrade works.	Managed in accordance with HMP
37-3-0802	SA13/3	Artefact scatter	Low	Extant	Nil	Managed in accordance with HMP.

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					Outside of subsidence impact area and AHIP.	
37-3-1147	AFA52, AFA53, AFA54	Artefact scatter	Low	Artefact scatter located on exposed track. Partially Salvaged Portion of site located within ULD crack zone	Medium - High Will be impacted by subsidence remediation and surface mine infrastructure.	Managed in accordance with AHIP #1131017.
37-3-0512	ASH16	Artefact scatter	Low	Salvaged	N/A	Managed in accordance with AHIP #1131017.
37-3-0513	ASH17	Artefact scatter	Medium	Extant Located in an eroded exposure on a ridge overlooking Bowmans Creek. The site also contained some burnt clay deposit. Some potential for subsurface artefacts.	High Will be impacted by subsidence remediation and surface mine activities.	Managed in accordance with AHIP #1131017.
37-3-0514	ASH18	Artefact scatter	Low	Partially Salvaged Terrace overlooking Bowmans Ck. Some potential for subsurface artefacts. Portion of site within ULD crack zone salvaged.	Medium - High Will be impacted by subsidence remediation and surface mine infrastructure.	Managed in accordance with AHIP #1131017.
37-3-0515	ASH19	Isolated artefact	Low	Partially Salvaged. Eroded exposure on ridgeline overlooking Hunter River. Portion of site within ULD crack zone salvaged. Site located within ULLD crack zone.	Medium - High Will be impacted by subsidence remediation and surface mine infrastructure.	Managed in accordance with AHIP #1131017.
37-3-0517	ASH21	Isolated artefact	Low	Salvaged	High Will be impacted by remediation works and surface activities.	Managed in accordance with AHIP #1131017.

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AHIMS No.	Site Name	Site Type	Archaeological Significance	Description (incl. status)	Predicted Impact *	Management # (refer to Table 4 and Appendix B)
37-3-0518	ASH22	Artefact scatter	Low	Salvaged	High Will be impacted by remediation works and surface activities.	Managed in accordance with AHIP #1131017.
37-3-0540	EWA066-067	Artefact Scatter	Low	Extant	Nil Site located outside of subsidence crack zone for ULD & ULLD seams.	Managed in accordance with HMP.
37-3-0550	EWA068	Artefact Scatter	Low	Extant	Nil Site located outside of subsidence crack zone for ULD & ULLD seams.	Managed in accordance with HMP.
37-3-0539	EWA072-074, SA13.2	Artefact Scatter	Low	Extant	Nil site located outside subsidence impact zone.	Managed in accordance with HMP.
37-3-0553	EWA071	Artefact Scatter	Low	Extant	Nil site located outside subsidence impact zone.	Managed in accordance with HMP.
		Potential burials	Potential for high significance	The terrace near the northern end of the Western Diversion is compacted clay therefore the main area for potential burials will be in the softer overbank deposits on the outer margins of meander bends.	Ground Penetrating Radar compl burials. Appendix B contains pro case of a suspected burial.	•

[#] These management measures have been prepared based on the assumption that works within the PG seam have been completed prior to impacts within the ULD seam.

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^{*} Four categories of potential subsidence impacts have been defined:

High Definite potential for cracking, ponding or surface erosion to occur that will require remediation.



Medium Low Subsidence will be experienced but only a moderate chance that impacts requiring remediation will occur. Subsidence may be experienced at the site however there is a low chance that repair work will be required.

No Impact

No impacts on sites will occur as they are located outside the subsidence zone.

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Table 3: Sites Recorded over the ACOL-operated RUM Subsidence Impact Zone

Note: These details are current at the time of writing of this management plan. Some sites may have been salvaged, or further defined subsequent to the development of this plan, where applicable current AHIMS records will be consulted. ACOL will prepare an AHIP application in consultation with the Registered Aboriginal Parties (RAPs) for the sites recorded over the ACOL-operated RUM, where relevant.

No.	AHIMS No.	Site Name	Site Type	Archaeological Significance #	Site Status & Additional Information	Predicted Impact	Management Recommendations
1	37-3-1254	REA437	Isolated Find	Not provided to be determined	Extant	Potential impacts from construction of surface infrastructure.	Prepare ACHAR and AHIP Application to allow for salvage of site. Manage under AHIP and HMP.
2	37-3-0829	NE16	Isolated Find	Low	Partially Salvaged. Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located in predicted subsidence crack zone. Impacts from cracking and cracking remediation works.	Site to be reassessed as part of ACHAR for RUM. Manage under AHIP and HMP.
3	37-3-0845	NE33	Isolated Find	Low	Partially Salvaged. Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located in predicted subsidence crack zone. Impacts from cracking and cracking remediation works.	Site to be assessed as part of RUM ACHAR and included in AHIP application to allow for salvage works prior to impact. Mange under AHIP and HMP.

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No.	AHIMS No.	Site Name	Site Type	Archaeological Significance #	Site Status & Additional Information	Predicted Impact	Management Recommendations
4	37-3-1306	REA303	Isolated Find	Not provided. To be determined	Extant	Located in predicted subsidence crack zone. Impacts from cracking and cracking remediation works.	Prepare ACHAR and AHIP Application to allow for salvage of site. Manage under AHIP and HMP.
5	37-6-2166	NE32	Isolated Find	Low	Partially Salvaged. Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Nil Site located 36 m from predicted subsidence crack zone.	Site to be included on AHIP application to allow for any additional management measures such site protection works, if required. Site to be assessed as part of ACHAR for RUM. Manage under HMP and AHIP
6	37-3-0840	NE27	Artefact Scatter (2)	Low	Partially Salvaged. Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located in predicted subsidence crack zone. Impacts from cracking and cracking remediation works Site located in powerline easement. Potential impacts if power poles need to be realigned following subsidence.	Site to be assessed as part of ACHAR for RUM. Site to be included on AHIP application to allow for any additional salvage works, if required. Manage in situ under HMP and AHIP (if required).

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No.	AHIMS No.	Site Name	Site Type	Archaeological Significance #	Site Status & Additional Information	Predicted Impact	Management Recommendations
7	37-3-0828	NE15	Isolated Artefact	Low	Extant	Located in predicted subsidence crack zone. Impacts from cracking and cracking remediation works.	Prepare ACHAR and AHIP Application to allow for salvage of site.
8	37-3-0821	NE8	Artefact Scatter (6)	Low	Extant Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Site recorded of loci of artefacts along a 400 m length of access track. May be impacted by predicted subsidence cracking or ponding.	Prepare ACHAR and AHIP Application to allow for salvage of site.
9	37-3-0853	NE41	Artefact Scatter (3)	Low	Partially Salvaged Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Nil Located outside of subsidence crack zone and predicted ponding. Assess sites for other impacts — such as access track maintenance works.	Site to be included on AHIP application to allow for any additional management measures such as track maintenance works, if required. Site to be assessed as part of ACHAR for RUM. Manage in situ under HMP and AHIP (if required).
10	37-3-0846	NE34	Isolated Find	Low	Extant	Nil Located outside of subsidence crack zone and predicted ponding and surface infrastructure area.	Manage in situ under HMP.

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No.	AHIMS No.	Site Name	Site Type	Archaeological Significance #	Site Status & Additional Information	Predicted Impact	Management Recommendations
11	37-3-0822	NE9	Artefact Scatter (11)	Low	Extant	Located in predicted ponding area.	Prepare ACHAR and AHIP Application to allow for salvage of site. Manage under AHIP and HMP.
12	37-3-0841	NE28	Artefact Scatter (19)	Low	Extant 3 loci of artefacts over a 50 m x 35 m area.	Located on edge of predicted ponding.	Prepare ACHAR and AHIP Application to allow for salvage of site. Manage under AHIP and HMP.
13	37-3-0850	NE38	Isolated Find	Low	Partially Salvaged Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located in predicted subsidence crack zone. Impacts from cracking and cracking remediation works.	Prepare ACHAR and AHIP Application to allow for salvage of site.
14	37-3-1305	REA304	Artefact Scatter (5)	Not yet determined	Extant Artefacts located along vehicle access track.	Located outside of potential subsidence crack zone, predicted ponding. Assess sites for other impacts – such as access track maintenance works.	Site to be included on AHIP application to allow for any additional management measures such as track maintenance works, if required. Site significance to be assessed as part of ACHAR for RUM. Manage in situ under HMP and AHIP (if required).

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No.	AHIMS No.	Site Name	Site Type	Archaeological Significance #	Site Status & Additional Information	Predicted Impact	Management Recommendations
16	37-3-1263	REA423	Artefact Scatter (39)	Not yet determined	Extant 39 artefacts in a 12 m x 3 m exposure.	Nil Located outside of potential subsidence crack zone, predicted area of ponding and surface infrastructure.	Site to significance to be assessed as part of ACHAR for RUM. Manage in situ under HMP.
16	37-3-1257	REA432	Artefact Scatter (2)	Not yet determined	Extant Artefacts located on erosion scour adjacent to access track.	Nil Located outside of potential subsidence crack zone, predicted area of ponding and surface infrastructure.	Site significance to be assessed as part of ACHAR for RUM. Manage in situ under HMP.
17	37-3-0842	NE29	Artefact Scatter (8)	Low	Extant Artefacts in erosion scour 15 m x 10 m	Nil Located outside of potential subsidence crack zone, predicted area of ponding and surface infrastructure.	Manage in situ under HMP.
18	37-3-0848	NE36	Artefact Scatter (3)	Low	Extant Artefact located in exposure under Casuarina.	Nil Located outside of potential subsidence crack zone, predicted area of ponding and surface infrastructure.	Manage in situ under HMP.

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No.	AHIMS No.	Site Name	Site Type	Archaeological Significance #	Site Status & Additional Information	Predicted Impact	Management Recommendations
19	37-3-0849	NE37	Isolated Find	Low	Partially Salvaged Located on access track. Site could not be relocated during previous AHIP salvage works.	Located outside of potential subsidence crack zone, predicted ponding. Assess sites for other impacts – such as access track maintenance works.	Site to be included on AHIP application to allow for any additional management measures such as track maintenance works, if required. Manage in situ under HMP and AHIP (if required).
20	37-3-0823	NE10	Artefact Scatter	Low	Partially Salvaged Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located outside of potential subsidence crack zone, predicted ponding. Assess sites for other impacts – such as access track maintenance works.	Site to be included on AHIP application to allow for any additional management measures such as track maintenance works, if required. Manage in situ under HMP and AHIP (if required).
21	37-3-0825	NE12	Artefact Scatter	Low	Partially Salvaged Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located in predicted subsidence crack zone. Impacts from cracking and cracking remediation works.	Prepare ACHAR and AHIP Application to allow for salvage of site.

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No.	AHIMS No.	Site Name	Site Type	Archaeological Significance #	Site Status & Additional Information	Predicted Impact	Management Recommendations
22	37-3-0824	NE11	Artefact Scatter (50)	Low	Partially Salvaged Large scatter over 21000 m² area on disturbed dam edge. Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. 33 artefacts recovered. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located in predicted pre-mining and post-mining ponding.	Prepare ACHAR and AHIP Application to allow for salvage of remaining portion of site to be impacted by RUM works if required. Manage under AHIP and HMP.
23	37-3-0834	NE21	Artefact Scatter	Low	Partially Salvaged Site covers area 320 m x 60 m around dam. Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. 12 artefacts recovered. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located in predicted pre-mining and post-mining ponding.	Prepare ACHAR and AHIP Application to allow for salvage of remaining portion of site to be impacted by RUM works if required. Manage under AHIP and HMP.

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No.	AHIMS No.	Site Name	Site Type	Archaeological Significance #	Site Status & Additional Information	Predicted Impact	Management Recommendations
24	37-3-0839	NE26	Artefact Scatter (100+) & PAD	Moderate	Extant	Located in pre-mining and post-mining ponding area and portion of the site may extend in to predicted subsidence crack zone. Site covers 90 m ² .	Prepare ACHAR and AHIP Application to allow for salvage of remaining portion of site to be impacted by RUM works. Manage under AHIP and HMP.
25	37-3-0837	NE24	Isolated Find	Low	Site listed as partially salvaged on AHIMS, however marked as destroyed on Aboriginal Site Impact Reporting Form (ASIRF). Salvage works undertaken under AHIP #1121100 by AECOM (2011).	Nil Site has been salvaged.	No further recommendations required.
26	37-3-1311	REA307	Artefact Scatter (2)	To be determined	Extant Artefacts located on existing vehicle access track.	Located in predicted subsidence crack zone. Impacts from cracking and cracking remediation works.	Prepare ACHAR and AHIP Application to allow for salvage of site.

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No.	AHIMS No.	Site Name	Site Type	Archaeological Significance #	Site Status & Additional Information	Predicted Impact	Management Recommendations
27	37-3-0830	NE17	Isolated Find	Low	Partially Salvaged Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located on edge of post-mining ponding area.	Prepare ACHAR and AHIP Application to allow for salvage of site.
28	37-3-0816	NE3	Artefact Scatter (2)	Low	Partially Salvaged Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located in predicted subsidence crack zone. Impacts from cracking and cracking remediation works. Assess sites for other impacts – such as access track maintenance works, pipeline/powerline relocation.	Prepare ACHAR and AHIP Application to allow for salvage of site.

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No.	AHIMS No.	Site Name	Site Type	Archaeological Significance #	Site Status & Additional Information	Predicted Impact	Management Recommendations
29	37-3-0844	NE31	Isolated Find	Low	Partially Salvaged Salvage works undertaken under AHIP #1121100 by AECOM (2011) which allowed for partial impacts. Following salvage works site status marked as partially salvaged on Aboriginal Site Impact Recording Form.	Located in predicted subsidence crack zone. Impacts from cracking and cracking remediation works.	Prepare ACHAR and AHIP Application to allow for salvage of site.

[#] The Archaeological Significance assessment will be undertaken as part of an ACHAR associated with the AHIP Application for the sites located across the ACOL-operated RUM (see Section 2.1).

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4.2 Potential for Additional Sites

The archaeological assessments of the LW1 - 8 subsidence impact area have found that the potential for unidentified sites to occur vary according to the age of the landscape feature.

Western Panels

The data regarding cultural heritage has been based on the 2002 field survey, and updated by a series of additional investigations for the SMP LW/ MW 5-9, and Bowmans Creek diversion.

Areas of the Bowmans Creek terrace (east and west) have been formed in the post European period. These areas are considered to have no potential for in situ artefact scatters; however, the potential for artefacts to have been transported on or into the terrace along with the terrace deposit cannot be discounted.

Elsewhere the terraces of Bowmans Creek are of sufficient age and stability to contain artefact scatters in situ. The integrity of these scatters is likely to be variable depending on factors such as historical land use. These factors are considered and addressed in the methodologies prescribed in AHIP #1130976.

The potential for previously unidentified sites to occur in these landforms is likely, as the pasture cover is sufficiently dense to obscure the majority of the land surface. However, the sites that have been identified in these landforms have been sufficient to identify the probable character of any obscured sites. The salvage methodologies have therefore been designed to be applicable to both known and unknown sites, unless a previously unknown site is identified as significant at which time special conditions within the AHIP #1130976 will be implemented as outlined in **Appendix B**.

Eastern Panels

The data regarding Aboriginal cultural heritage across the eastern panels has been based on the 2002 field survey and supplemented by site inspections with stakeholder representatives that routinely occur prior to surface works.

The eastern panels were surveyed in November and December 2011 to ground truth existing data and identify any additional sites that have been exposed by changes in surface visibility prior to undertaking salvage works for the ULD seam in 2012.

As identified within the western panels, the potential for previously unidentified sites to occur in these landforms is likely, however, the sites that have been recorded have been sufficient to identify the probable character of any additional sites. The salvage methodologies have therefore been designed to be applicable to both known and unknown sites, unless a previously unknown site is identified as significant at which time special conditions within AHIP #1131017 will be implemented as outlined in **Appendix B**.

LW201 - 204

Given that LW201 - 204 in the ULLD seams overlay LW1 - 4 in the ULD seams (Eastern Panels), which have already been subject to secondary extraction and hence subsidence impacts, the potential for previously unidentified sites to occur in this area in unlikely. Notwithstanding this, the salvage methodologies, as previously developed for both known and unknown sites will continue to be implemented, as outlined in **Appendix B** and AHIP #1131017.



LW205 - 208

Given that LW205 - 208 in the ULLD seams overlay LW5 - 8 in the ULD seams (Western Panels), which have been subject to secondary extraction and thus subsidence impacts, the potential for previously unidentified sites to occur in this area is unlikely. The salvage methodologies have therefore been designed to be applicable to both known and unknown sites, unless a previously unknown site is identified as significant at which time special conditions within AHIP #1130976 will be implemented, as outlined in **Appendix B**.

ACOL-operated RUM

A Due Diligence Heritage Assessment was completed by OzArk Environment and Heritage Management (OzArk, 2012) focussing on potential surface impacts associated with subsidence caused by the mining of the PG longwalls within the ACOL-operated RUM domain. The majority of the ACOL-operated RUM area has undergone significant previous impact from open cut mining and mining-related infrastructure (e.g. waste emplacements) and thus no longer contain intact sediments / soil deposits, hence removing the potential for the presence of intact Aboriginal archaeological material.

Landforms in the eastern portion of proposed PG LW404, LW405 and LW406 are mapped as largely unmined, minimally disturbed, remnant and regrowth vegetation and contain intact sediments / soil deposits, and also contain possible intact Aboriginal archaeological material. However, it should be noted that aerial photograph interpretation of the surface area above these southern longwalls shows that this land was cleared of native vegetation in 1967, and the land used for agricultural purposes. Although this vegetation would be considered 'remnant' under the NSW *Native Vegetation Act 2003*, having regrown before 1993, it has been disturbed in the past, although not to a degree that precludes the presence of Aboriginal sites, as previous surveys have demonstrated (Umwelt, 2010).

All surface infrastructure to be developed at the ACOL-operated RUM will be located within previously cleared areas (e.g. access tracks and mining areas). Mining will progress from the northern panels (LW403) to the southern panel (LW406). ACOL will obtain any required permits under the NP&W Act for relevant extant Aboriginal heritage sites located near the PG Seam longwall panels (i.e. LW403 – 406 for the Modification) prior to secondary extraction that impacts the sites. ACOL will consult with relevant Aboriginal parties during the preparation of any AHIP application in accordance with the requirements of Steps 4.2.1 to 4.4.5 of the Aboriginal cultural heritage consultation requirements for proponents (Department of Environment, Climate Change and Water, 2010).

4.3 European Heritage Sites

Five European heritage sites have been identified in proximity to the ACP. These include:

- St Clements Anglican Church, Lot 103 DP 738182, located to the west of Camberwell Village is an item of local significance as listed on the Singleton Council Local Environmental Plan (LEP) 2013 (Schedule 5, Part 1, Item No. I12);
- Camberwell Community Hall, Lot 2 Section 13 DP 758214, located south of the New England Highway is an item of local heritage significance as listed in the Singleton Council LEP 2013 (Schedule 5, Part 1, Item No. I13);
- Camberwell Glennies Creek Underbridge located at 252.613km Main Northern Railway Line is listed under section 170 of the NSW Heritage Act 1977. The item curtilage includes the bridge structure and a surrounding area of 20 m in all directions; and



- Historical Grave Glennis Creek Road. Identified as part of the NEOC project, the historical grave site of Bernard
 Fox is located adjacent to Glennies Creek Road. Mr Fox was a sheep overseer on the Ravensworth property who
 was killed on the 25 October 1847 following an altercation with Charles Cooper a ticket of leave holder stationed
 at Falbrook. The site has been fenced as part of the NEOC project.
- Ravensworth Public School an item of local heritage significance in the Singleton LEP Local Environment Plan (1996) Schedule 3 Part 3 Items classified as being of Historical Heritage (local significance).

These items will not be impacted by underground mining at the ACP and ACOL-operated RUM and no specific management measures have been recommended for European heritage sites. Two additional sites of historical occupation have been identified on the surface overlying LW8.

One site, which relates to the earlier agricultural history of the holding, is a standing ruin and consists of a timber shed and yard area. This structure comprises a concrete slab, timber-frame constructed shed clad with weatherboard, corrugated iron gable roof and adjacent corrugated iron water tanks. The yard area consists of a small timber post and wire enclosure.

These structures were assessed by Umwelt (2010) as not forming part of any identified significant grouping of rural farm buildings and are not heritage listed items. Umwelt concluded that these items have nil to low significance and no research potential.

No management of the site is proposed, other than to secure the site and prevent injury during/ following subsidence as per the Built Features Management Plan and Public Safety Management Plan.

The second site was identified in November 2011 by Insite heritage as a possible shepherd's hut/outstation located on the Ashton Coal mine lease. The known site elements are a probable chimney and small area of brick floor. The site is likely to be associated with the original Ashton property dating to the late 19th/early 20th Century.

In 2012 ACOL received an Excavation Exemption from the Heritage Division of NSW Environment, Energy and Science (Heritage Division) (now HNSW) to allow for subsurface testing of the site in order to determine an accurate site boundary for future management. These investigations may occur prior to further subsidence under the structures.



5. CONSULTATION AND MANAGEMENT

The actions that ACOL undertakes to fulfil the consent conditions outlined in **Appendix A** are detailed in **Table 4**. These actions have been categorised into:

- · Monitoring;
- Management; and
- Incident Response.

Consultation with Aboriginal stakeholders was carried out at the time of developing the Aboriginal cultural heritage SMP LW1 – 4 and Western Panels HMP. This HMP consolidates the management strategies documented within these previous management plans into one concise document, and does not introduce any new management strategies that would require additional consultation under applicable guidelines. Consultation also continues in the course of day-to-day mine management activities including internal clearance procedures.

The salvage of sites will be carried out under the approved AHIPs issued by the former OEH (now HNSW) (refer to **Appendices F** and **G**). An AHIP is issued on the basis of the management measures prescribed in the corresponding ACHAR and associated HMP. This management plan also represents a consolidation of the consultation undertaken in the development of these AHIP applications. In acknowledgment that the AHIP may also prescribe additional management measures to be fed back into the HMP where necessary, this management plan seeks to capture any of these additional management requirements to ensure consistency between the documents.

As such the management measures outlined in **Table 4** and **Appendix B** have been developed by the archaeologist, in consultation with the Aboriginal community stakeholders. Specifically, this final management plan was discussed during the Aboriginal Community Consultative Forum (ACCF) meetings (as discussed in **Section 5.1**). Further, management measures have been part of the ongoing consultation undertaken with the community during the development of the respective AHIP applications and take into consideration of any additional conditions required within the issued AHIPs.

Comprehensive consultation was undertaken during the major revision of this HMP in 2017 with RAPs, Singleton Historic Society and Museum Inc, EES and AGL Macquarie Generation.

The RAPs were provided the opportunity to comment on a previous revision of the HMP and the Plan was also discussed at an ACCF meeting held on the 6 June 2017. During this meeting, the RAPs requested procedures be developed for the reinterment of the Aboriginal artefacts salvaged from ACP. A procedure for the reinterment of the Aboriginal artefacts has been developed in conjunction with RAPs and, at the time of document review, consultation with HNSW regarding approval for the procedure was pending. This procedure details requirements for the storage, curation, display and/or reinterment of artefacts salvaged from ACP, ensuring traditional ritual and etiquette is followed. ACOL will endeavour to finalise these procedures in consultation with HNSW and incorporate these into the HMP during the next review of the Plan.



The RAPS were provided the opportunity to comment on the current revised HMP in 2022. In addition, the RAPs were given an update regarding the ACP and ACOL-operated RUM in ACCF meetings held on the following dates:

- 7 December 2021;
- 7 June 2022;
- 5 December 2022;
- 27 June 2023;
- 5 December 2023:
- 18 June 2024; and
- 10 December 2024.

This HMP has been updated to incorporate the ACOL-operated RUM area as part of this Extraction Plan. Separately, ACOL will prepare a new AHIP Application to HNSW for Aboriginal cultural heritage sites which may be impacted by the mining of the ACOL-operated RUM area.

In support of an AHIP application, ACOL will consult with relevant Aboriginal parties in accordance with the requirements of Steps 4.2.1 to 4.4.5 of the Aboriginal cultural heritage consultation requirements for proponents (Department of Environment, Climate Change and Water, 2010). Any relevant outcomes of the AHIP process, including feedback from RAPs, would be incorporated into an updated version of the HMP, prior to impacting on relevant sites.

5.1 Aboriginal Community Consultative Forum

ACOL have established an ACCF with the following objectives:

- to provide a formal vehicle for communication with the broader Aboriginal community and to provide a forum to allow effective communication to take place between Aboriginal stakeholder groups and ACOL; and
- to provide information to the community as well as receive feedback on cultural and community issues.

The ongoing operation and structure of the ACCF will be reviewed on an ongoing basis to determine its long-term viability. However, based on the current implementation and effectiveness of the ACCF, this forum forms the central basis of ACOL's Aboriginal Community Consultation. It is recognised that this may change in the future.

The ACCF is currently chaired by an independent facilitator and is made up of representatives from ACOL, consulting archaeologists and members of ACOL's 34 RAPs. Each ACOL RAP is invited to participate and is provided documentation from ACCF meetings irrespective of their participation levels. The meetings are currently held every six months (subject to change if required at different intervals) and provide a forum to allow effective communication to take place between the Aboriginal community and ACOL. During each forum, updates are provided to community members on ACOL operations as well as feedback on cultural and community issues.



Focused working groups were operated as part of the establishment of the ACCF. Members from each of the RAPS were invited to nominate to be members of a specific working group (i.e. the Voluntary Conservation Area management). The aim of the working groups was to work closely with ACOL representatives and archaeology consultants on cultural heritage management recommendations and report back to the ACCF. The following working groups were established:

- Voluntary Conservation Area (specifically related to this Plan of Management);
- Grinding Groove management;
- Ongoing fieldwork protocols; and
- Artefact identification and analysis.

Working groups held workshops in 2012 with the results reported back to the ACFF. No working groups were active at the time of revision of this document.

The most recent meeting between ACOL and the ACCF was facilitated in December 2024. During ACCF meetings conducted since 2022, ACOL has continued to update the ACCF on the ACOL-operated RUM as well as the RUM Longwalls 403 to 406 Extraction Plan process. The ACCF will continue to meet at approximately six-monthly intervals during the mining of the ACOL-operated RUM.



Table 4: Archaeology and Cultural Heritage Management Actions and Responsibilities

Item	Action	Trigger/Timing	Responsibility	Reporting
1.0	Monitoring			
1.01	Documented visual inspection (including photographs) of all in situ sites subject to potential subsidence will be undertaken by a qualified archaeologist to record the current condition of each archaeological site as outlined in Appendix C . All RAPs will be provided with the opportunity to participate in this recording. The Archaeologist will provide a written report to Ashton confirming such inspections have been carried out prior to commencement of mining a longwall panel.	Prior to and at the completion of each longwall panel.	Environment and Community Relations Superintendent Archaeologist	Internal Reporting
1.02	Site personnel will inspect archaeological sites that are potentially affected by subsidence on a monthly basis during undermining. The inspections will aim to observe the relationship of cracking (if any) to sites, any erosion potentially threatening the site and whether intervention and remediation works are required.	Monthly	Environment and Community Relations Superintendent Mine Surveyor	Internal Reporting
1.03	All RAPs will be provided with the opportunity to monitor mine related impacts on Aboriginal sites within ULLD LW201 – 208 and PG LW403 - 406 of the ACOL-operated RUM.	Prior to and at the completion of each longwall panel.	Environment and Community Relations Superintendent	-
1.04	Following completion of LW extraction within each seam in the western panels (LW205 – 208), ACOL must prepare a report on the Aboriginal heritage subsidence impact monitoring program (Appendix C).	At completion of each seam (western panels).	Environment and Community Relations Superintendent	Cultural Heritage Management Report to HNSW
1.05	Following completion of longwall extraction within the eastern panels (LW201 – 204), ACOL must prepare a report on the actions relating to the harm of Aboriginal objects (permitted by the AHIP) as outlined in Section 6.2 .	At completion of mining within the eastern panels (or expiry of the relevant AHIP).	Environment and Community Relations Superintendent	Harm to Aboriginal Objects Report to HNSW and all RAPs
1.06	Following completion of longwall extraction within the ACOL-operated RUM (LW403 – 406), ACOL must prepare a report on the Aboriginal heritage subsidence impact monitoring program (Appendix C).	At completion of each seam (ACOL-operated RUM) (or expiry of the relevant AHIP).	Environment and Community Relations Superintendent	Harm to Aboriginal Objects Report to HNSW and all RAPs
2.0	Management			
2.01	Collection of surface artefacts as outlined in Appendix B will be aimed at those sites not already collected during the detailed surface collection, salvage excavation and grader scrapes already completed in accordance with the AHIP #1130976, AHIP #11310017.	Prior to any subsidence related impact within the ULD.	Environment and Community Relations Superintendent Archaeologist	Annual Review, Cultural Heritage Management Report and Harm to

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Item	Action	Trigger/Timing	Responsibility	Reporting
	Written confirmation will be provided by the Archaeologist that the sites have been collected at the completion of the collection. Written confirmation will be attached to any required ACOL Ground Disturbance Permit and will include the significance of the salvaged site, confirm that all artefacts have been placed in the approved temporary storage facility and that ASIRFs will be submitted to the AHIMS registrar.			Aboriginal Objects Report to HNSW
2.02	Maintain fencing around the Oxbow site and monitor for potential subsidence impacts including cracking, ponding and/or increased erosion. Where impacts are anticipated or observed, salvage in accordance with an appropriate AHIP will be carried out prior to mitigation/remediation measures being undertaken as outlined in Appendix B .	Prior to any subsidence mitigation related impact.	Environment and Community Relations Superintendent	Annual Review
2.03	Maintain sites identified for conservation, such as Waterhole and Glennies Creek sites, in accordance with HMP(s) and relevant management plans including fencing, erosion control measures and site entry restrictions. No construction within 70 m of the Waterhole site.	Ongoing for life of mine.	Environment and Community Relations Superintendent	Annual Review
2.04	Ensure all personnel involved in earthworks or any type of disturbance on the ACP are appropriately trained/inducted and made aware of the cultural significance of the area, including site identification and materials likely to be uncovered. Personnel will be instructed to notify the Environment and Community Relations Superintendent in the event they identify any object which they believe to be of archaeological or cultural origin.	Prior to commencing works on site.	Environment and Community Relations Superintendent	None
2.05	The Aboriginal stakeholders have been asked to consider the curation of the artefacts retrieved from the site. Should consensus not be reached by stakeholders within 3 years of the commencement of the relevant AHIP the artefacts will be stored as determined by HNSW.	Ongoing.	Environment and Community Relations Superintendent	None
2.06	Ensure that archaeological surveys are undertaken for any new impact areas and where required project specific management measures prepared in consultation with stakeholders. At the end of the survey inspection and prior to work commencing, the archaeologist is to provide written confirmation to Ashton that work may proceed.	Prior to commencing works on site.	Environment and Community Relations Superintendent Archaeologist	None
2.07	Provide a first point of contact if Aboriginal people wish to visit any areas of conservation.	Ongoing.	Environment and Community Relations Superintendent	None
2.08	Review of ACOL ACH site register to be undertaken every 12 months to ensure that ACOL records and information on AHIMS. Update ACH site registers every 6 months.	12 monthly review. ACH Register updated every 6 months. Update every 12 months.	Environment and Community Relations Superintendent	Internal Database

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Item	Action	Trigger/Timing	Responsibility	Reporting
	ACOL to maintain a GIS database of ACOL ACH sites for mapping and site management purposes. GIS database to be updated every 12 months.		Environment and Community Relations Superintendent Archaeologist	
3.0	Incident Response			
3.01	Subsidence remediation works will be undertaken in accordance with Appendix B and will aim to: • Minimise disturbance from any remediation/repair works; • Relocate artefacts within the area to avoid the proposed works; and If damage appears to be unavoidable, undertake salvage works.	Where impacts are anticipated or observed to any unsalvaged sites.	Environment and Community Relations Superintendent	Annual Review
3.02	Following the discovery of new finds of Aboriginal objects – surface works will cease in the immediate area immediately and the area secured. Assessment of the site/object and subsequent management of the site will be carried out in accordance with the protocols provided in Appendix B . In addition, the site will be recorded on standard AHIMS site cards and lodged with AHIMS. Objects that are likely to be impacted are to be salvaged in consultation with stakeholders and archaeologist as outlined in Appendix B . If the site is considered by the archaeologist, in consultation with at least two RAPs, to be significant, HNSW will be notified and a methodology for salvage will be developed with HNSW and the RAPs. Surface works within the immediate area will only recommence on agreement in writing from HNSW on the salvage methodology.	The discovery of any previously unrecorded Aboriginal heritage sites.	Environment and Community Relations Superintendent	Annual Review
3.03	In the event that a potential burial is identified / discovery of skeletal remains— works will immediately cease in that area. No works to recommence until clearance is provided by HNSW and/or where appropriate the NSW Police as per the protocol outlined in Appendix B .	Identification of a potential burial or discovery of skeletal remains.	Operations Manager	Annual Review (if appropriate and approved)

Important Note: These management measures have been prepared based on the assumption that cultural heritage management works planned in advance of mining within the ULLD seam have been completed. As indicated within Table 2, grader scapes, salvage excavation and surface collections have been undertaken, or were planned to be undertaken in accordance with the relevant version of the HMP prior to construction of the Bowmans Creek Diversion and mining within the PG, ULD and ULLD seams. No additional management measures have been recommended in the table above for those sites where surface collection and/or salvage works have been already carried out or were planned to be carried out in accordance with the relevant AHIP. If not conducted prior to impacts associated with secondary extraction in the ULLD seam, these sites will be managed in accordance with the relevant AHIP (Appendices F and G).

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6. IMPLEMENTATION

6.1 Contingency Response

The flow chart in **Figure 4** demonstrates the implementation of this plan with respect to the performance measures/ indicators identified in **Section 3.2** and general steps to be undertaken in the event that potential unplanned impact and/or exceedance of the criteria occurs.

In the event the performance measures provided in **Section 3.2** are considered to have been exceeded, or are likely to be exceeded, ACOL will undertake the following:

- report the likely exceedance of the performance indicator as soon as practicable after becoming aware of the exceedance. This will be reported to the relevant agencies, as required under the DAs or legislation;
- identify an appropriate course of action with respect to the identified impact in consultation with appropriate specialists, relevant agencies and local Aboriginal community representatives; and
- review the effectiveness of this HMP and performance measures to adequately manage potential impacts within the limits of the project approval.



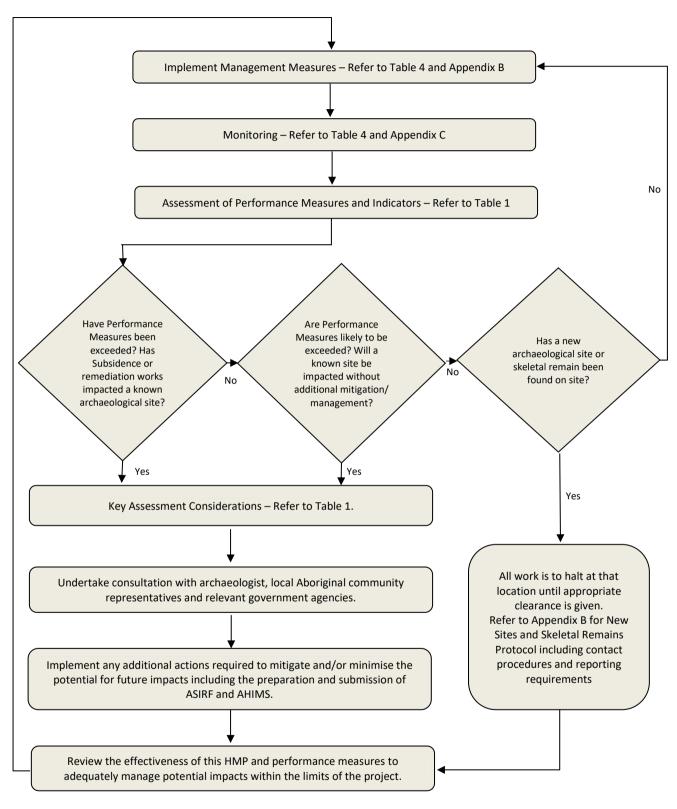


Figure 4: HMP Implementation and Contingency Response

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6.2 Reporting

Reporting measures relevant to this HMP are nominated in **Table 4** and include the reporting of management actions/progress undertaken, and any incidents within the following documents:

- Annual Review:
- AHIMS site cards;
- ASIRF;
- Cultural Heritage Management Reports (western panels); and
- Harm to Aboriginal Object Report (eastern panels).

The Annual Review is the primary reporting tool for the ACP and ACOL-operated RUM. The Annual Review is required to be prepared under the Ashton DA and Mining Lease and its purpose is to review the performance of the mine against the EMS and the relevant RMPs, the conditions of the DAs, and other licenses and approvals relating to the mine. In context of archaeology and cultural heritage management the Annual Review will report against and review the findings of monitoring conducted in relation to the items in **Table 1** and **Table 4**. Within 30 days of being finalised and approved, the Annual Review will be made publicly available via ACOL's website.

An ASIRF must be completed and submitted to the AHIMS Registrar for each AHIMS site identified within Schedules B and C of the relevant AHIP that has been salvaged or otherwise impacted as authorised under the AHIP. These must be submitted within one month of the action for the western panels and biannually for the eastern panels (or within 4 months of the completion of the actions authorised by, or expiry of, the relevant AHIP).

AHIMS site cards have been designed to complement the AHIMS data structure as well as to meet the professional standards for archaeological recording of potentially sensitive information. All new sites (both previously unrecorded and relocated sites) will be recorded by an archaeologist on standard AHIMS site cards and submitted to HNSW for registration on the AHIMS database.

Copies of any ASIRFs or AHIMS site cards submitted to the AHIMS Registrar will also be provided to ACOL for their records.

A Cultural Management Heritage Report (western panels) is to be prepared and submitted to HNSW two months prior to the extraction of the next seam at the Ashton Underground Mine (i.e. Lower Barrett). The report will contain as a minimum:

- documentary evidence of Aboriginal sites and objects such as photographs, written records and comments made by the RAPS at each monitoring location within the AHIP area during the reporting period;
- include a map of landform units overlying the longwall panels within the AHIP area, that identifies the location of:
 - longwall panels;
 - aboriginal sites and objects;
 - predicted versus measured subsidence impacts for the reporting period, including type and scale of impact; and
 - o any mining related surface disturbance activities, including subsidence remediation works, which were carried out during the reporting period.
- describe any revised proposed subsidence assessment of the potential impact to Aboriginal sites and objects within the AHIP area;
- describe the measures implemented to manage subsidence and how these were applied to reduce or avoid impacts to Aboriginal sites and objects within the AHIP area;



- describe any ongoing consultation with or involvement of RAPs in relation to the AHIP during the reporting period;
- describe how any Aboriginal objects or no-harm areas described in Schedule A were managed during the reporting period;
- comment on the effectiveness of any HMP that was in place during the reporting period;
- comment on the effectiveness of any mitigation measures that were implemented;
- detail the results of any analysis of Aboriginal objects; and
- include a statement confirming that all ASIRFs have been completed and submitted to the AHIMS Registrar.

A Harm to Aboriginal Objects Report (eastern panels) must be prepared and submitted to HNSW within 4 months of the completion of the action authorised by the relevant AHIP, i.e. the completion of mining within the eastern panels or the expiry of the AHIP (whichever comes first). The report must:

- include a short summary of the report;
- describe any ongoing consultation with or involvement of representatives of RAPs in relation to the AHIP;
- describe how any Aboriginal objects or 'no harm areas' described in Schedule A of the AHIP were managed during the course of undertaking the actions;
- provide a description of the methods and results of any salvage excavations;
- detail any community collection of Aboriginal objects undertaken by the RAPs;
- comment on the effectiveness of any mitigation measures that were implemented;
- comment on the effectiveness of any management plan that was in place;
- if any Aboriginal objects were moved to a temporary storage location, a description of the nature and types of Aboriginal objects which are now at that location;
- details of the results of any analysis of Aboriginal objects;
- detail the long-term management arrangement for any Aboriginal objects; and
- include a statement confirming that all ASIRFs have been completed and submitted to the AHIMS Registrar.

A copy of the Harm to Aboriginal Objects Report, including a summary of the report in plain English, must be sent by registered post to each RAP within 14 days of the report being submitted to HNSW.

This management plan and any major revisions will be undertaken in consultation with the Aboriginal community, HNSW, Singleton Council, local historical organisations and relevant landowners and submitted to the Planning Secretary for approval. The management plan will be distributed to relevant government agencies, SC, Community Consultative Committee (CCC), and the ACCF and published on Ashton Coal's website within 30 days of approval.

6.3 Audits and Reviews

This HMP may be audited (if required) under the scope of any external environmental compliance audits.

In accordance with the AHIP #1130976, the monitoring program is to be reviewed at least two months prior to longwall extraction for each new seam.

In accordance with the DAs, within 3 months of the submission of an:

- a) Incident Report under Condition 8 of Schedule 5 of the Ashton DA and under Condition 5 of Schedule 4 of the RIIM DA:
- b) Annual Review under Condition 10 of Schedule 5 of the Ashton DA and under Condition 2 of Schedule 4 of the RUM DA;

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- Audit under Condition 11 of Schedule 5 of the Ashton DA and under Condition 7 of Schedule 4 of the RUM DA; and
- d) Any modification to the conditions of the consents (with the exception of Modification 5). The management plan will be reviewed and if necessary updated and approved by the Secretary of DPE.

In addition to the above, an internal review of this HMP may be conducted in response to:

- an incident recorded as a result of the operations that potentially affects any known cultural heritage site;
- a significant change in operation that may affect the implementation of this management plan;
- statutory requirements or directions/conditions of approvals requiring such action; or
- recommendations as a result of internal or external audits.

Non-Compliance Notification

Within 7 days of becoming aware of a non-compliance, ACOL will notify the DPE in writing via the DPE's Major Projects Website of the non-compliance, which must include the DA number and name. When non-compliance with the impact criteria occurs, or as directed by a relevant authority, an investigation will be undertaken. The investigation will:

- describe the date, time, location and nature of the exceedance;
- identify the cause (or likely cause) of the exceedance;
- identify the activities that were occurring at the time of the non-compliance;
- determine the activities that were most likely contributing to the non-compliance;
- describe what action has been taken to date; and
- describe the proposed measures to address the exceedance.

6.4 Training

All personnel involved in earthworks or any type of disturbance on the ACP will be appropriately trained/inducted prior to commencement of work. This will include a component on the Aboriginal cultural and historical heritage known within the area and procedures for site identification and materials likely to be uncovered. Personnel will also be instructed to notify the Environment and Community Relations Superintendent in the event that any objects are encountered that may be of archaeological or cultural origin.

Records will be maintained to confirm personnel have been appropriately trained in Aboriginal cultural and historical heritage management.



7. REFERENCES

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8. REVISION HISTORY

Version History

Version Date	Status Details		Authors	Authorised/Approve	Authorised/Approved for Issue		
Version Bate	Status	Details	Additions	Name/Position	Date		
02/03/2012	FINAL	For Consultation	Insite Heritage, AECOM	Lisa Richards, Environment & Community Relations Manager	02/3/2012		
17/07/2012	FINAL	For Approval	Insite Heritage, AECOM	Lisa Richards, Environment & Community Relations Manager	17/07/2012		
01/08/2012	FINAL	Approved	Insite Heritage, AECOM	Lisa Richards, Environment & Community Relations Manager	01/08/2012		
25/07/2014	FINAL	Approved Reviewed following 3 year Independent Environmental Audit (December 2013) and annual review.	Insite Heritage, AECOM	Lisa Richards, Environment & Community Relations Manager	25/07/2014		
13/06/2015	FINAL	Reviewed following independent environmental audit and the 2014 AEMR. Revision includes the addition of statement of commitment and general management plan consent requirements, and minor wording changes including the update of government department names. No material changes to management practices have occurred in this review.	Ashton Coal	Digby Short, Environment and Community Relations Manager	13/06/2015		
19/06/2015	FINAL	Approved	Ashton Coal	Digby Short, Environment and Community Relations Manager	19/06/2015		
08/05/2017	FINAL	For Consultation during minor review following submission of Annual Review, Independent Environmental Audit and changes within DA Modification 5.	Ashton Coal, Insite Heritage	Phillip Brown, Environment and Community Relations Superintendent	08/05/2017		
22/06/2017	FINAL	For Approval, following minor review after submission of Annual Review, Independent Environmental Audit and changes within DA Modification 5.	Ashton Coal, Insite Heritage	Phillip Brown, Environment and Community Relations Superintendent	22/06/2017		
10/10/2017	FINAL	Approved	Ashton Coal	Phillip Brown, Environment and Community Relations Superintendent	10/10/2017		

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05/06/2020	FINAL	For Approval, following minor review after submission of Annual Review and Independent Environmental Audit	Ashton Coal	Phillip Brown, Environment and Community Relations Superintendent	05/06/2020
25/09/2020	Final	For approval following review by DPI&E	Ashton Coal	Phillip Brown, Environment and Community Relations Superintendent	25/9/2020
16/09/2022	Final	Following the ACP-RUM integration	Ashton Coal	Phillip Brown, Environment and Community Relations Superintendent	
04/2025	Final	Incorporating the RUM Longwall 403 to 406 Extraction Plan	Ashton Coal	Phillip Brown, Environment and Community Relations Superintendent	

External Approval Register

Organisation	Nominated Rep.	Version	Date Issued	Date Approved
DP&I	Howard Reed	17/07/2012	18/07/2012	27/07/2012
DRE	Brad Mullard	17/07/2012	18/07/2012	31/07/2012
DP&E	Chris Knight	19/06/2015	29/06/2015	27/07/2015
DP&E	Matthew Sprott	10/10/2017	29/06/2017	04/10/2017
DPIE	Matthew Sprott	05/06/2020	06/06/2020	16/11/2020
DPE				



9. APPENDICES

10. Appendix A – Approval Conditions



Table 5: Ashton Development Consent Approval Conditions (Heritage)

Condition Number	Condition Requirement (DA 309-11-2001)	Where Addressed in HMP
	Additional information relating to flora and fauna surveys, the diversion of Bowmans Creek, water quality, groundwater, air quality and Aboriginal cultural heritage provided by HLA-Envirosciences to planning NSW and other government agencies, dated 28 February 2002.	
	Note: the recommendations made in relation to Aboriginal Cultural Heritage in the document referenced above include:	This HMP
	A management plan;	Table 2, Appendix B, Appendix E
	Fencing of aboriginal sites to avoid damage;	Not applicable to this management plan, but
	The opportunity for the aboriginal community to tender for small works; and	covered by a deed of agreement.
	An archaeological research program.	Section 3, Table 1, AHIPs.
Schedule 2,	Fax from WML to Planning NSW dated 25 July 2002 relating to Aboriginal conservation. (Note: the commitments made in this fax relate to Conservation of Glennies Creek site and the waterhole grinding grooves).	Table 3
Condition 2 (a) and Appendix 4	Letter from WML to Planning NSW dated 12 August 2002 relating to a conservation area. (Note: the commitment made in this document is in relation to the Voluntary Conservation Agreement).	Appendix E
Аррениіх 4	Document titled Development Consent modification DA 309-11-2001-I MOD 4 dated July 2009, prepared by Wells Environmental Services.	
	(Note: the relevant commitment made in this document are:	
	Artefact scatters will be regularly monitored by the aboriginal community giving them the chance to record and relocate artefacts should subsidence appear to cause damage;	Table 1
	Regular archaeological monitoring of Bowmans Creek floodplain and terraces; and	Table 2 and AHIP #1131017 (Appendix F)
	Approval under Part 6 prior to remediation works within Bowmans Creek / Brunkers Lane area.	AHIP #1130976 (Appendix G)
	Document titled Second Response to Submissions – Ashton Coal Operations Ltd. (ACOL) – Longwall/ Miniwall Panel No. 9 dated 24 December 2009. (Note: this document states that sites that will be disturbed by subsidence will be collected, otherwise sites will remain in situ)	Table 1

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Condition Number	Condition Requirement (DA 309-11-2001)	Where Addressed in HMP
	The Applicant shall prepare and implement a Heritage Management Plan for the Ashton Mine Complex to the satisfaction of the Secretary to manage the potential impacts of the development. This plan must: Be prepared by suitably qualified and experienced persons whose appointment has been endorsed by the Planning Secretary;	This HMP is a consolidation of previously approved management plans and AHIPs #1131017 and #1130976 (Appendices F and G), as prepared by suitably qualified and experienced personnel, Insite Heritage and AECOM. Only minor changes have been made to this Plan during this review. In accordance with Schedule 5, Condition 3 of the Ashton DA, the HMP approved at the time of modification 5 may be reviewed in accordance with the previous approval. In accordance with the DA, the HMP will be prepared by a suitable person endorsed by the Secretary at least 3 months prior to the commencement of any open cut mining.
Schedule 3, Condition 34	a) Be prepared in consultation with OEH, Council, the Aboriginal Community, local historical organisations and relevant landowners, and be submitted to the Planning Secretary for approval;	Appendix D
	b) Include the following for the management of Aboriginal cultural heritage on the site:	-
	c) An archaeological salvage program for the development disturbance area, which includes additional sub-surface testing of the more significant sites and landform units;	Table 4 and Appendix B AHIP #1131017 and #1130967 (Appendices F and G)
	A description of the measures that would be implemented for:	-
	The protection, monitoring and management of Aboriginal sites outside the development disturbance area, and within the Southern Conservation Area;	Table 2, Section 5 and Appendices B, C and E Part of the conservation area falls outside the AHIP boundaries and these areas will be managed to prevent impacts.
	 Maintaining and managing access for Aboriginal sites by the Aboriginal community; 	Table 4 and Section 5.1 Appendix C

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Condition Number	Condition Requirement (DA 309-11-2001)		Where Addressed in HMP
		 Managing the discovery of any human remains or previously unidentified Aboriginal objects that have conservation significance during the development; 	
	 Ongoing consultation and inv Aboriginal cultural heritage; a 	olvement of the Aboriginal communities in the conservation and management of ind	Ongoing consultation with the Aboriginal community in accordance to the most recent HNSW guidelines is carried out as part of the AHIP application and development process. Section 5.1
	 Heritage inductions for const 	ruction personnel (including procedures for keeping records of inductions); and	Section 6.4
Schedule 3, Condition 34	d) Include the following for the management of		
Condition 54	A description of the measures that wou		
	Managing the discovery of hu	Table 4 and Section 6.1 Appendix B	
	 Heritage inductions for const 	Table 4 and Section 6.4	
	The applicant must implement the approved man	Noted	
	The Applicant shall ensure that underground mining does not cause any exceedances of the performance measures in Table 10. Table 10: Subsidence Performance Measures (inter alia)		
	Aboriginal heritage features		
Schedule 3,	Waterhole Site	Negligible impact	Table 1
Condition 29, Table 10	Other Aboriginal heritage sites	No greater subsidence impact or environmental consequences than approved under a permit issued under section 90 of the National Parks and Wildlife Act 1974	Table 1
	Notes: The Applicant will be required to define movarious management plans that are required und		

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Condition Number	Condition Requirement (DA 309-11-2001)	Where Addressed in HMP
	Management Plan Requirements	
	2. The Applicant must ensure that the management plans required under this consent are prepared in accordance with any relevant guidelines, and include:	Section 4
	a) Detailed baseline data;	
	b) A description of:	Section 2 and Appendix A
	The relevant statutory requirements (including any relevant approval, license or lease conditions);	Section 3.2
	Any relevant limits or performance measures/criteria;	Section 3
	The specific performance indicators that are proposed to be used to judge the performance of, or guide the	This table
	implementation of, the development or any management measures;	Section 3.2
	c) A description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or	
	performance measures/criteria;	Section 6
Schedule 5,	d) A program to monitor and report on the:	Section 6
Condition 2	Impacts and environmental performance of the development;	Continue C 1
	Effectiveness of any management measures (see (c) above);	Section 6.1 Section 6.3
	e) A contingency plan to manage any unpredicted impacts and their consequences;	Section 6.5
	f) A program to investigate and implement ways to improve the environmental performance of the development over time;	Section 6.1
	g) A protocol for managing and reporting any:	
	Incidents;	
	Complaints;	Section 6.3
	Non-compliances with the conditions of this consent and statutory requirements; and	
	Exceedances of the impact assessment criteria and/or performance criteria; and	
	h) A protocol for periodic review of the plan.	
	Note: The Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.	

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Condition Number	Condition Requirement (DA 309-11-2001)	Where Addressed in HMP	
SOC Mod 7 4a	Locations of gas drainage well pads and access tracks will be developed to avoid known Aboriginal heritage sites, wherever practicable.	al heritage sites, wherever Section 4.1	
	Locations of gas drainage well pads and access tracks will be surveyed in conjunction with aboriginal community stakeholders for Aboriginal artefacts prior to disturbance and:		
 Where additional significant Aboriginal artefact sites are identified the well pad or access track will be relocated to avoid impacting the Aboriginal site Where impact to Aboriginal artefacts cannot be avoided these will either be salvaged or relocated in conjunction with Aboriginal community stakeholders in accordance with the conditions of tan Aboriginal Heritage Impact Permit 		Section 4.1	
SOC Mod 7 4c, SOC Mod 9 1d, SOC Mod 10 4c	Site inductions will include identification of aboriginal heritage evolution areas and actions to be undertaken where additional		
SOC Mod 9 1c and SOC Mod 10 4b	A perimeter barricade will be placed around known objects located in proximity to the proposed works to avoid unintentional impacts during construction and operation.	Table 4	

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Table 6: Ashton Development Consent Approval Conditions (General)

Condition Number	Condition requirement (DA 309-11-2001)	Addressed in HMP	
	Revisions of Strategies, Plans and Procedures		
	Within 3 months of:		
	a) submission of an incident report under condition 8 below;		
I	b) submission of an annual review under condition 10 below;	Sections 6.2 and 6.3	
	c) submission of an audit under condition 11 below; and		
Schedule 5,	d) any modification to the conditions of this consent (with the exception of MOD 5);		
Condition 6	The Applicant shall review, and if necessary, revise the strategies, plans, and programs required under this consent to the satisfaction of the Planning Secretary.	Sections 6.2 and 6.3	
	The Applicant shall publish on its website any revised document resulting from these reviews within 30 days of the Planning Secretary's approval of the document.		
	Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.		
	Incident Reporting		
Schedule 5, Condition 8	The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.	Section 6.2	
	Non-Compliance Notification		
Schedule 5 Condition 8A	Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	Section 6.3	
Condition 8A			

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Condition Number	Condition requirement (DA 309-11-2001)	Addressed in HMP
Schedule 5, Condition 13	Access to Information 13. The Applicant must: a) make copies of the following publicly available on its website: • the documents listed in condition 2(a) • the current statutory approvals for the development • approved strategies, plans and programs required under the conditions of this consent; • a comprehensive summary of the monitoring results of the development, including model performance results which have been reported in accordance with the various plans and programs approved under the conditions of this consent; • a complaints register, which is to be updated on a monthly basis; • minutes of CCC meetings; • the annual reviews over the life of the development; • any independent environmental audit, and the Applicant's response to the recommendations in any audit; • any other matter required by the Planning Secretary; and • keep this information up to date by ensuring that all management plans, monitoring results and reports are available on the Applicant's website within 30 days of their completion.	Sections 6.2 and 6.3

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Table 7: RUM Development Consent Approval Conditions (Heritage)

Condition Number	Condition requirement (DA 104/96)		Addressed in HMP
	Aboriginal Cultural Heritage Management Plan The Applicant must prepare and implement an Aboriginal Cultural of the Planning Secretary. This plan must:	Heritage Management Plan for the project to the satisfaction	
	a) be prepared in consultation with Heritage NSW, the Aboriginal community, and be submitted to the Planning Secretary for approval by the end of December 2013;		Section 2
	b) include a program/procedures for:		
Schedule 3,	 minimising disturbance to Aboriginal sites as far as is reasonable; 	onable and feasible, particularly in relation to the RUM-OS1	Table 3 and Sections 4.1 and 5
Condition 26	 salvage, excavation and/or management of Aboriginal site disturbance area, including the RUM-OS1 site; 	Table 3 and Sections 4.1 and 5	
	,	protection and monitoring of Aboriginal sites outside the project disturbance area, including provisions to protect the undisturbed portion of the RUM-OS1 site from activities associated with the development;	
	managing the discovery of any new Aboriginal objects or significant controls.	Section 6.1	
	 ongoing consultation and involvement of the Aboriginal co- cultural heritage on the site. 	Section 5.1	
	The Applicant must ensure that the development does not cause any exceedances of the performance measures in Table 1, to the satisfaction of the Planning Secretary.		
Schedule 3,	Heritage		Table 1
Condition 1		lo greater subsidence impact or environmental	Table 1
	u.	onsequences than approved under a permit issued nder section 90 of the National Parks and Wildlife Act 974	

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Table 8: RUM Development Consent Approval Conditions (General)

Condition Number	Condition requirement (DA 104/96)	Addressed in HMP
Schedule 4, Condition 3	Revision of Strategies, Plans and Programs Within 3 months of: a) the submission of an annual review under condition 2 above; b) the submission of an incident report under condition 5 below; c) the submission of an audit under condition 7 below; and d) any modification to the conditions of this consent, The Applicant must review, and if necessary revise, the strategies, plans, and programs required under this consent to the satisfaction of the Planning Secretary. Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the development.	Section 6.3
Schedule 4, Condition 5	Incident Reporting The Applicant must immediately notify the Department and any other relevant agencies immediately after it becomes aware of an incident. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name) and set out the location and nature of the incident.	Section 6.2
Schedule 4, Condition 5A Non-Compliance Notification Within seven days of becoming aware of a non-compliance, the Applicant must notify the Department of the non-compliance. The notification must be in writing via the Department's Major Projects Website and identify the development (including the development application number and name), set out the condition of this consent that the development is non-compliant with, why it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance. Note: A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance		Section 6.3

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Access		
Schedule 4, Condition 9 Solve a condition 9 Solve a condition 9 Solve a condition 9	September 2013, the Applicant must: ke copies of the following publicly available on its website: the EAs; all current statutory approvals for the development; all approved strategies, plans and programs required under the conditions of this consent; a summary of the monitoring results of the development, which have been reported in accordance with the various plans and programs approved under the conditions of this consent; a complaints register, updated on a monthly basis; minutes of CCC meetings; the annual reviews (over the last 5 years); any independent environmental audit, and the Applicant's response to the recommendations in any audit; any other matter required by the Planning Secretary; and ep this information up-to-date, attisfaction of the Planning Secretary.	Sections 6.2 and 6.3

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11. Appendix B - Management Measures & Protocols

The management measures have been developed in consultation with the Aboriginal stakeholders to address their concerns and to meet the archaeological requirements to conserve and/or salvage archaeological values in the area (refer to **Table 1** for specific performance measures). These methodologies have been committed to by ACOL as outlined in **Table 4**, and detailed below. All of these management measures will be undertaken in accordance with an appropriate HMP and AHIP (refer to **Appendices F** and **G**). ACOL will seek an AHIP for sites over the ACOL-operated RUM before impacting these sites.

Important Note: These management measures have been prepared based on the assumption that cultural heritage management works planned in advance of mining within the ULLD seam and the PG seam of the ACOL-operated RUM have been completed. As indicated within **Table 2**, grader scapes, salvage excavation and surface collections have been undertaken, or were planned to be undertaken in accordance with the HMP prior to construction of the Bowmans Creek Diversion and mining within the ULD seam. No additional management measures have been recommended in the table above for those sites where surface collection and/or salvage works have been already carried out or were planned to be carried out in accordance with the relevant AHIP. If not conducted prior to impacts associated with secondary extraction in the ULLD seam, these sites will continue be managed in accordance with the following protocol and relevant AHIP (**Appendices F** and **G**).

SALVAGE OF ABORIGINAL OBJECTS

Stage 1 – Surface Collection

Surface artefacts within the subsidence impact zone will be collected by Aboriginal stakeholders accompanied by an archaeologist if predicted to be impacted by subsidence impacts or any required remediation works. The surface collection of known objects will be undertaken as follows:

- 1. Known objects identified in the relevant AHIP are to be relocated and collected in accordance with the conditions of the relevant AHIP.
- 2. GPS logging of object location.
- 3. Inspection of surrounding area for additional objects recently exposed and collection and recording of same.
- 4. Recording of site context / condition at time of collection (see analysis section below).
- 5. Artefacts to be handled, stored and recorded as outlined in the relevant AHIP (see storage of artefacts section below).

In accordance within the AHIP (23 December 2011) the Registered Aboriginal Parties (RAPs) will be given the opportunity to collect Aboriginal objects within eastern panels in accordance within the above methodology prior to any excavation or impact to the sites.

Stage 2 – Assessment of Subsurface Potential

- 1. Each collected location to be assessed for subsurface potential.
- 2. Subsurface potential includes any area of potential deposits, including areas of undisturbed A1 and A2 soil horizons with a depth of 200 millimetres (mm) or more.
- 3. Where no subsurface deposit is identified go on to grader scrapes.
- 4. Where subsurface potential identified go to investigative salvage excavation.



Stage 3 – Investigative Salvage Excavation

Excavations will be conducted by an archaeologist and Aboriginal stakeholders as follows:

- 1. Investigative salvage excavation in one square metres (m²) test probes. On m² probes in areas that have been subject to ploughing and other lateral disturbance.
- 2. Investigative salvage excavation in one square meter probes in 50 centimetre (cm) units in areas that have not been subject to lateral disturbance or have been identified as having greater stratigraphic potential i.e. the area of potential Pleistocene surface.
- 3. Test probes to be extended over the sample area at appropriate spacings being no more than 15 metres between initial probe locations.
- 4. Deposit sieved through 5 mm sieves at test stage.

Stage 4 - Salvage Excavation

Excavations will be conducted by an archaeologist and Aboriginal stakeholders as follows:

- 1. Salvage excavation to be carried out where investigative salvage excavation confirms artefact bearing deposits.
- 2. Salvage excavation to be carried out where ancient land surfaces are confirmed, with or without artefacts.
- 3. Test probes to be expanded until the full extent of artefact bearing deposit is identified and or sterile deposit is reached.
- 4. Spoil to be excavated in arbitrary 100 mm spits until such time as a stratigraphic sequence or discrete archaeological feature becomes evident. Identifiable features or stratigraphic units to be excavated as discrete units.
- 5. Evidence or otherwise of bioturbation and taphonomic processes to be recorded in detail.
- 6. All spoil to be sieved in 3 mm sieves. Wet sieving is preferential.
- 7. Salvage excavation in areas of stratified deposit to be undertaken by hand.
- 8. Salvage excavation of the Pleistocene deposit to be undertaken in units no greater than 50 cm x 50 cm or less in response to features.
- 9. Samples of charcoal and/or uncontaminated quartz in stratified deposits to be retained for dating purposes.

Stage 5 – Grader Scrapes

Grader scapes may be carried out in the AHIP area where there will be ground disturbance from the proposed works, in order to identify the presence of previously unknown Aboriginal objects.

Grader scrapes to be conducted in areas either cleared of potential subsurface deposits at Stage 1 (artefact collection) or on completion of Stage 2 (investigative salvage excavations) where no further excavation warranted or Stage 3 completion of open area excavation. Grader scapes will not be carried out in potential Pleistocene Sediment (AHIMS Site 37-3-0496), or areas where potential impact is limited to subsidence (i.e. no ground disturbance).

- 1. Grader scrapes to be conducted over identified areas with passes of 50-100 mm dependent on grass cover etc.
- 2. Scrapes to be continued aiming at 50 .mm per pass where possible.
- 3. Lenses of objects (i.e. >5 per m²) to be excavated in m² units.
- 4. Caches, hearths, uncommon knapping, special features, (etc. to be excavated at finer detail in consultation with HNSW and the community).
- 5. Isolated finds and small disturbed scatters to be recorded, collected and their recorded by GPS.

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Note: In accordance with the AHIPs, all required excavations must be completed in an area before any harm of Aboriginal objects (as authorised within the AHIP) can commence in the same area.

ANALYSIS

- 1. All excavated artefacts are to be bagged by location, date, probe and spit at a minimum. All surface artefact details are to be collated into a catalogue in hard and electronic format.
- 2. Artefact analysis is to be carried out by an appropriate specialist.
- 3. Use wear and residual analysis to be conducted where appropriate.
- 4. All artefacts retrieved from the AHIP areas are to be recorded, at a minimum of, location (GPS), raw material, and characteristics such as type, morphology and material. Morphology to include length, width, platform type, termination, negative scars on cores, retouch, usewear, etc.
- 5. Artefacts to be individually bagged, or bagged in identifiable units, back referenced to the catalogue. All bags labelled outside and internally with archive quality recording media.
- 6. Implements, tools, knapping events and unusual items will be forwarded to an artefact analysis specialist for detailed analysis.

STORAGE OF ARTEFACTS

Western Panels

The Aboriginal stakeholders have been asked to consider the curation of the artefacts retrieved from the western panels. ACOL will assist stakeholders prepare a Care Agreement if necessary or lodge the artefacts with the Australian Museum. ACOL must notify HNSW as soon as the long-term storage location has been determined, should consensus not be reached by stakeholders within 3 years of the commencement of the AHIP (dated 26 August 2011) the artefacts will be lodged with the Australian Museum, or as determined by HNSW.

In accordance with the AHIP (dated 26 August 2011), until a long-term storage location is determined, Aboriginal objects must only be taken to a temporary storage location, moved to a location within the same landform or moved to another location in consultation with a minimum of two RAPs. If Aboriginal objects are relocated, the new location must be recorded on a new AHIMS site card and lodged with AHIMS.

Eastern Panels

In accordance with the AHIP (dated 23 December 2011), any Aboriginal objects removed from the land by actions authorised in the AHIP must be moved as soon as possible to the temporary storage location below pending any agreement reached about the long-term management of the Aboriginal objects.

Location	The offices of Ashton Coal Operations Pty Ltd.	
Address	73 Glennies Creek Road CANBERWELL NSW	
Storage Particulars	Following analysis, the objects must be securely and appropriately stored until long term management is negotiated in consultation with the Registered Aboriginal Parties.	

• ACOL will undertake a visual verification every 6 months to ensure that salvaged artefacts are maintained in good condition in the temporary storage facility.

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 ACOL will maintain an Artefact Storage Register. The register will document and record movement of salvaged artefacts to and from the temporary storage facility. The register will be updated every 12 months.

In the event that Aboriginal objects collected or salvaged under the AHIP are to be reburied at a different location:

- a) The reburial of Aboriginal objects must occur as soon as practical after completion of collection and salvage activities;
- b) Reburial activities must be undertaken by the AHIP holder and the land owner in consultation with representatives of the RAPs;
- c) Pursuant to section 89A of the Act, the location of each reburial area must be notified in writing to HNSW office within 3 months after reburial occurs and a new AHIMS site card submitted to the AHIMS Registrar; and
- d) The AHIP holder and the landowner must ensure that procedures are put in place to ensure that Aboriginal objects at each reburial location are not disturbed, damaged, destroyed or defaced.

The storage of artefacts must comply with Requirement 26 "Stone artefact deposition and storage" in the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW (24 September 2010).*

FENCING AND CONSERVATION

Sites selected for in situ conservation will be:

- Fenced to prevent stock or vehicular access, and provide a boundary between the contractors and the outer perimeter of the site.
- A work method statement (WMS) prepared, outlining the responsibilities of contactors to ensure that all site to
 be conserved are not impacted. The WMS will also outline any repercussions or fines administered by HNSW if
 WMS not adhered to.
- Monitored for erosion and disturbance and, where required, rectified in consultation with stakeholders if particular sites may be impacted.
- Monitored for possible damage from subsidence.

Where impacts are anticipated or observed, mitigation will follow priority:

- 1. Minimise disturbance from repair works.
- 2. Relocate artefacts within the area to avoid repair works.
- 3. If damage appears unavoidable, undertake salvage (to be defined, e.g. surface collection, grader scrapes or salvage excavations).

ACCESS ROUTES

In accordance with the AHIPs, where practical existing access routes across the AHIP area must be used.

Where the use of the existing access routes is not practical, new access routes may be located so as not to impact on any known Aboriginal sites or objects. Any new access route proposal will be discussed with representatives of the RAPs prior to construction.



STAKEHOLDER ACCESS AND INFORMATION

Aboriginal stakeholders will be invited to comment on relevant final documentation regarding the management of Aboriginal cultural heritage within the ACP and ACOL-operated RUM and will be provided with a final copy of the approved management plans. Stakeholders will also be notified of any major changes to the HMP and may apply to ACOL for site access. In accordance within the site HMP (Part 2), access to grinding grooves will be controlled and visited only with a guide.

CONTRACTOR INDUCTIONS

Personnel involved in earthworks or any type of disturbance on the ACP and ACOL-operated RUM will be inducted prior to commencing works onsite. The induction will include a component on cultural awareness (i.e. how to recognise a site, the materials likely to be uncovered and the significance of area). Personnel will be instructed to notify the Environment and Community Relations Superintendent in the event they identify any object which they believe to be of archaeological or cultural origin.

SUPPLEMENTARY FIELDWORK

Additional Aboriginal fieldwork may be undertaken on a progressive basis as part of future Extraction Plans to inform the design of management measures, monitor the effects of subsidence and validate subsidence predictions.

NEW SITES AND DISCOVERY OF SKELETAL REMAINS

Non-Indigenous Heritage

In the event that any sites or items are discovered during construction or operation, all work in the immediate area will halt and ACOL will consult with the HNSW).

Unrecorded Aboriginal Heritage Sites

Any previously unrecorded significant Aboriginal heritage sites identified by contractors or during fieldwork (monitoring, supplementary fieldwork or follow up inspections etc.) will be left undisturbed and reported to ACOL Environment and Community Relations Superintendent.

All new sites will be recorded by an archaeologist on standard AHIMS site cards and submitted to HNSW for registration on the AHIMS database. New sites will also be subject to an archaeological and cultural significance assessment, in consultation with Aboriginal stakeholders.

Sites within the relevant AHIP area will be salvaged in accordance with the management measures outlined above and in consultation with Aboriginal stakeholders and archaeologist. Any additional sites found during works and identified as being of high archaeological or cultural significance may require a more detailed impact assessment and management details will be developed in consultation with registered Aboriginal stakeholders and HNSW. Surface works within the immediate area of the site will not recommence until authorised in writing by the Director of HNSW.

Note: In accordance with the AHIP, a significant site/object includes:

- a) Scarred or carved trees, fish traps, ground-edged tools, culturally modified wooden or bone objects, hearth, objects constituting a manufacturing site or knapping event, bora rings, grinding grooves/petroglyphs; or
- b) Other culturally significant objects as determined by archaeologist, in consultation with at least two RAPs



Discovery of Skeletal Remains

In the event that construction activity reveals possible human skeletal material (remains) within the development area, the following procedure is to be followed:

- 1. As soon as remains are exposed, all work is to halt at that location immediately and the ACOL Environment and Community Relations Superintendent is to be immediately notified.
- 2. Environment and Community Relations Superintendent on site to notify Operations Manager.
- 3. Contact police by ringing 000.
- 4. Contact the Environment line on 131 555 and HNSW on (02) 9873 8500.

A physical or forensic anthropologist will inspect the remains in situ (organised by the police unless otherwise directed by the police), and make a determination of ancestry (Aboriginal or non-Aboriginal) and antiquity (pre-contact, historical or forensic):

- A. If the remains are identified as forensic the area is deemed as crime scene:
- B. If the remains are identified as Aboriginal, the site is to be secured and DPE, HNSW and all Aboriginal stakeholders are to be notified in writing;
- C. If the remains are identified as non-Aboriginal (historical) remains, the site is to be secured and the Heritage Division is to be contacted.

The above process functions only to appropriately identify the remains and secure the site. The management of the area and remains is to be determined as follows:

- 1. If the remains are identified as a forensic matter liaise with the police.
- 2. If the remains are identified as Aboriginal liaise with the DPE, the HNSW and Aboriginal stakeholders.
- 3. If the remains are identified as non-Aboriginal (historical) liaise with the DPE and HNSW.
- 4. If the remains are identified as not being human, then work can recommence once the appropriate clearances have been given.



12. Appendix C - Monitoring Measures

MONITORING

Visual inspection of remaining artefacts in subsided/ to be subsided areas will be undertaken by a qualified archaeologist prior to and at the completion of each longwall. Pre and post mining inspection will record the current condition of each archaeological site and will consist of a visual inspection, and preparation of a brief description (with supporting photographs).

Site personnel will inspect each site on a monthly basis during undermining. The inspections will aim to observe the relation of cracking (if any) to archaeological sites, any erosion potentially threatening the site and whether intervention and remediation works are required. Based on observations of current subsidence impacts at the site, in most instances, cracking will close naturally and no works will be required.

All Registered Aboriginal Parties will also be provided with the opportunity to monitor mine related impacts on Aboriginal sites within LW101 - 108, prior to, during and at completion of each longwall panel.

SUBSIDENCE REMEDIATION

Monitoring of each site as the longwall passes will aim to identify any subsidence impacts (cracking, ponding, and erosion) in the vicinity which is likely to require remediation.

Cracking

Surface artefacts within the subsidence impact zone will be collected if predicted to be impacted by cracking or likely to be impacted by any remediation works. These sites will be subject to surface collection and salvage excavation (if required) as detailed in **Appendix B**.

Ponding

Earthworks associated with remediating ponded areas, where relevant, will be minimised in extent and avoid known archaeological sites where possible. If impacts are necessary, the same procedures discussed above for remediation of cracking will be implemented.

Erosion

Where known sub-surface deposits will be impacted by erosion, they will be excavated over the footprint of remediation work, artefacts salvaged and/or returned to the site following remediation. All AHIMS site cards will be updated to reflect the activities that have occurred.



13. Appendix D – Correspondence

From: <u>Liz Wyatt</u>
Cc: <u>Phillip Brown</u>

Bcc: "aboriginalhistoryhunter@gmail.com"; "cacatua4service@tpg.com.au"; "tracev@marrung-pa.com.au"; "gidawa.walang@hotmail.com"; "bigrodshouse@hotmail.com"; "hto.paulette@gmail.com";

"ceo@hyabcorp.org.au"; "christinepaul737@gmail.com"; "luke5707@gmail.com"; "drenchdfrench@hotmail.com"; "junburra@bigpond.com"; "deshickey@bigpond.com";

"kayawya@rocketmail.com"; Lea-Anne Miller (Ihwcs.lea@gmail.com); "scott@tocomwall.com.au"; "Administration (admin@ungooroo.com.au)"; ""Ungooroo Aboriginal Corporation";

"wedgetail59@outlook.com"; "darrel matthews@hotmail.com"; "co@wanaruahlandcouncil.com.au";
"unclewarrentaggart@gmail.com"; Arthur Fletcher; "wonnarua@bigpond.com"; "l.perry@optusnet.com.au";

"UHWC (yunaqa1@biqpond.com)"; "Admin"; "dthardy@activ8.net.au"

Subject: Draft Update to ACOL Heritage Management Plan

Date: Friday, 24 January 2025 1:18:00 PM

Attachments: image001.png

Ltr - ACOL RUM Extraction Plan ACP RAPs HMP Mailout Consultation Optmzd.pdf

Ashton Ravensworth Underground Mine Longwalls 403 to 406 Heritage Management Plan Optmzd.pdf Ashton Ravensworth Underground Mine Longwalls 403 to 406 Extraction Plan Heritage Technical

Report Optmzd.pdf

Dear All

Re: Draft Update to the Ashton Coal Heritage Management Plan

As a Registered Aboriginal Part for the Ashton Coal Project, please find attached is a cover letter from ACOL and the draft updated HMP for your review and comment. As mentioned at the last Aboriginal Community Consultation Forum held in December, Ashton Coal Operations Ltd (ACOL) have updated the Heritage Management Plan (HMP) to include the approved longwalls 403-406 of the RUM Development consent.

Please supply any comments in writing or via email by the 24th February 2025 to myself or Phillip Brown ACOL Environment & Community Superintendent (details included in the attached cover letter).

Also attached is the desktop heritage technical report prepared for longwalls 403-406, for your information. Please note that this is a desktop assessment only which recommends a full Aboriginal Cultural Heritage Assessment is prepared for the works in consultation with the Registered Aboriginal Parties for the project. We will be commencing the ACHA process in the coming weeks.

If you would like a hard copy of any of the attached, please let me know and I will post these out to you.

Kind regards

Liz

Elizabeth Olejnik I Principal Archaeologist



Stratum Archaeology Pty Ltd

PO Box 898 Toronto NSW 2283 MOBILE: 0448064483 ABN 74 637 121 361 From: <u>Liz Wyatt</u>
Cc: <u>Phillip Brown</u>

Bcc: "Aliera French"; "k.sampson@hotmail.com.au"; "tammy23477@hotmail.com"; Leslie Atkinson;

"jlcculturalservices@gmail.com"; "dawnrichard@bigpond.com"

Subject: Draft Update to ACOL Heritage Management Plan

Date: Friday, 24 January 2025 1:30:00 PM

Attachments: Ltr - ACOL RUM Extraction Plan RUM RAPs HMP Mailout Consultation Optmzd.pdf

image001.png

Ashton Ravensworth Underground Mine Longwalls 403 to 406 Heritage Management Plan Optmzd.pdf

Ashton Ravensworth Underground Mine Longwalls 403 to 406 Extraction Plan Heritage Technical

Report Optmzd.pdf

Dear All

Re: Draft Update to the Ashton Coal Heritage Management Plan

Ashton Coal Operations Pty Ltd (ACOL) is currently planning to access approved but unmined coal reserves at the Ravensworth Underground Mine (RUM). As a Registered Aboriginal Party for the Ravensworth Mine, you have been automatically included as Registered Aboriginal Party for the ACOL-operated RUM.

Please find attached a cover letter from ACOL and the draft updated HMP for your review and comment. Ashton Coal Operations Ltd (ACOL) have updated the Heritage Management Plan (HMP) to include the approved longwalls 403-406 of the RUM Development consent. **Please supply any comments in writing or via email by the 24th February 2025** to myself or Phillip Brown ACOL Environment & Community Superintendent (details included in the attached cover letter).

Also attached is the desktop heritage technical report prepared for longwalls 403-406, for your information. Please note that this is a desktop assessment only which recommends a full Aboriginal Cultural Heritage Assessment is prepared for the works in consultation with the Registered Aboriginal Parties for the project. We will be commencing the ACHA process in the coming weeks.

If you would like a hard copy of any of the attached, please let me know and I will post these out to you.

Kind regards

Liz

Elizabeth Olejnik I Principal Archaeologist



Stratum Archaeology Pty Ltd

PO Box 898 Toronto NSW 2283 MOBILE: 0448064483

ABN 74 637 121 361

MALL OUT DRAFT HIMP + HERITAGE TECHNICAL REPORT 24/1/2025

ACP RAPS:





Valley Culture 140 Sydney St Muswellbrook 2333





Sender to keep 9 02 01015 47193 60060 50990 Godawaa Walang Barkuma NC 76 Cang St Kum Kum NSW 2327



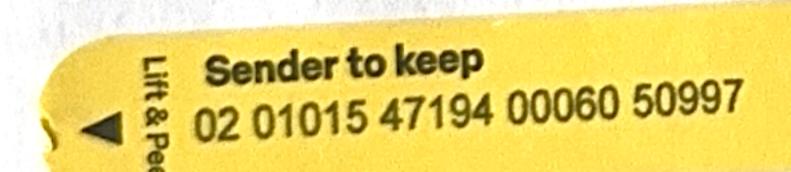


Mingga Consultants + Carrawonga Consultants 46 Queen St muswellbrook NSW 2333





L.W.T.C 156 The Inlet Rd Bulga NSW 2330



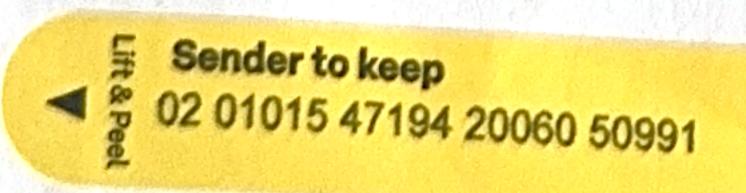


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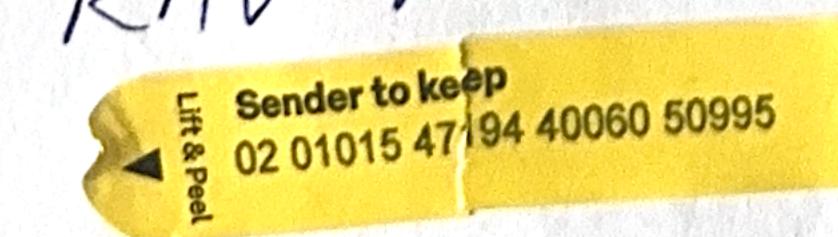
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Wonnarva Culture Hentage 19 0'Donnell cres Metford 2323

RAV RAPS;





T+G Culture Consultants 190'Donnell Cres Metford 2323.





Roger Matthews 3 Nowland St Muswell brook



14. Appendix E - Management of Conservation Area

Annexure C of the Conservation Agreement provides principles and activities for the management of the conservation area, and these are outlined below.

ITEM 1:

The landholders shall not undertake, consent to or permit the following activities unless they are undertaken in the manner specified as follows:

Weed control

- a) Carrying out weed control using the appropriate control methods to ensure that they do not compromise the integrity of the conservation values identified. Control and monitoring of weed growth will be as determined by the Ashton Coal Land Management Plan subject to the conditions of this Agreement, and the guidelines below:
 - Ensure methods of weed control do not damage cultural heritage values.
 - Glyphosate based herbicide may be used by direct application to cut surfaces (cut and paint or scrape and paint methods).
 - Spraying of a glyphosate-based herbicide can be used. This will be limited to according to the directions on the label and ensuring that there is no off-target damage.
 - Weeds can be removed by hand, ensuring that all plant parts that can reproduce are removed and that soils do not become prone to erosion.
 - Other weed control methods may be used with prior written permission of the Director-General.
 - Ensure control programs are commenced when timing and extent of weed removal will minimise adverse
 effects on wildlife (weeds may provide protection or habitat for native fauna). Removal of African
 boxthorn will not be undertaken during nesting periods for small birds which may nest in the plants.
 - Continue to check for weed invasion and regrowth and treat any outbreaks.
 - Check adjacent areas for invasive plant species and remove, or control their spread.

Feral animals

- b) Monitoring impacts to the conservation area by feral animals and undertaking of on-going control programs for feral animals is appropriate:
 - Methods for control can include shooting, trapping and use of poisonous baits with advice from OEH and the Livestock Health and Pest Authority.
 - Participate in community feral animal control programs, and encourage neighbours to implement pest animal control programs. Contact your local National Parks office to find out if community control programs are occurring in your area.

Native Fauna

c) Kangaroo culling when part of a population control program for the Land and only with approval by way of a Section 121 licence issued under the *National Parks and Wildlife Act 1974*. Planning for this operation will be done in consultation with the OEH:

Domestic animals and livestock

d) Mustering of livestock with the use of working dogs and horses.



- e) Controlled grazing may be used as a hazard reduction tool to reduce fuel loads in the conservation area as deemed necessary, and with the following guidelines:
 - Grazing will be initially excluded from the conservation area to encourage the natural regeneration of indigenous plants and to encourage the growth of a shrub layer.
 - Grazing must be excluded from areas of revegetation.
 - Grazing may be desirable to reduce seeding of particular weed species.
 - Where native grasses and ground covers are present, rotational grazing will be used. Graze with high numbers for short periods and allow long rest periods to ensure flowering and reseeding to occur of native ground layer species.
 - Stock should be removed during peak flowering times, that is in Spring or early Summer, being September through to the end of January.
 - Groundcover should be maintained above 80%.
 - Should stock be identified as introducing weeds into the conservation area, stock will be put in a holding yard or weed free paddock for 2 full days (48 hours) prior to entering conservation area. This will reduce the spread of weeds from dung.
 - Stock to be removed from Conservation Area if unacceptable levels of erosion or damage are apparent.
 - Guidelines to be outlined in the Ashton Coal Conservation Area Plan of Management based on the recommendations coming from the Flora and Fauna Management Plan and associated regular Flora and Fauna monitoring.

Fire

- f) Suppression where practicable of all wildfires occurring in the conservation area as quickly as possible with the aim of keeping fires to a small area.
- g) Undertaking of fire hazard reduction to protect the natural assets of the conservation area, in appropriate locations, with any required approvals and/or permits using:
 - raking and hand clearing
 - pile burning
 - fuel reduction burns
 - controlled grazing.
- h) Using fire hazard reduction burns and controlled burning which take into account the following fire interval guidelines for broad vegetation types and any guidelines given in the Ashton Coal Bushfire Management Plan:
 - In Sclerophyll Grassy Woodland vegetation, fire will not occur within five years of a previous fire, and will be burnt within forty years of any previous fire.

Vehicle access

i) Vehicle access to formed trails for access to private property, management purposes as outlined, approved by OEH, firefighting and/or any emergency requirements.

Threatened species

- j) Implementing any reasonable measures included in recovery plans or other management guidelines for any threatened species or communities which or may be found in the conservation area. At the time of signing this agreement, there is no recovery plan in place for the Grey-crowned Babbler.
- k) Implementing any reasonable measures to mitigate any alteration of habitat following subsidence due to longwall mining to minimise negative effects on the conservation area and in accordance with the Ashton Coal

Title: Heritage Management Plan					
Document ID:	Owner: Phil Brown				
Last Review: April 2025	Revision Number: F				



Subsidence Environmental Management Plan and the Development Consent issued by the Minister for Planning for Development Application No. 309-11-2001-i on the 11 October 2002.

Restoration of indigenous vegetation

- I) Restoration of native vegetation using natural regeneration as the preferred method.
- m) Revegetation to establish indigenous plants, using species produced from material sourced locally and without fertilisers, where
 - the ability to regenerate naturally within a reasonable time frame has been lost, or
 - to prevent soil erosion;
 - to aid in the establishment of species diversity and height diversity in areas dominated by single species and with depleted natural seed resources.

Revegetation must not compromise cultural heritage and the soil surface. Prior to any proposed revegetation an archaeological assessment must be carried out. The Owner should be aware that any works which impact on cultural heritage will require a section 90 consent under the *National Parks and Wildlife Act 1974*.

Seed collection

- n) Collection of seed collection in keeping with Guidelines/or Collection of Seed, and other Plant Propagation material (available from OEH), and the following limitations and permissions:
 - Collect seed in the conservation area only if seed of the particular species and genotype is not available
 elsewhere, or if the seed collected is intended for seedlings that will be planted within the conservation
 area or adjacent to the conservation area.
 - Licences are required for collection of material of protected plants listed under Section 131 (Schedule 13) of the *National Parks and Wildlife Act 1974*.
 - Where seed collection involves species listed on Schedules 1 and 2 of the *Biodiversity Conservation Act* 2016, the relevant licence or prior written permission from the Director-General will be obtained.

Thinning of indigenous vegetation

 Thinning of regenerating indigenous species, which are altering the structure of the vegetation and/or reducing conservation values. The benefits to conservation should be greater that the disturbance associated with thinning.

Provision of habitat

p) Installation of habitat boxes for native fauna in strategic locations where suitable hollows for native fauna are limited or absent. Locations and number to be determined as per the Ashton Coal Flora and Fauna Management Plan and recommendations made in regular Fauna monitoring programs in consultation with OEH.

Cultural heritage

q) Recording and management of any newly identified Aboriginal objects, as per the Ashton Coal Archaeology and Cultural Heritage Plan.

Visitation and research

r) Visitation, research and community use at a level that does not adversely impact on the conservation or Aboriginal heritage values of the area. Research projects will be discussed with OEH.

Title: Heritage Management Plan					
Document ID:	Owner: Phil Brown	Owner: Phil Br			
Last Review: April 2025	Revision Number: F				



s) Visitation, research and community use by the Aboriginal Community as outlined in the Ashton Coal Archaeology and Cultural Heritage Plan.

Developments

- t) Carrying out developments as described in Clause 2.3 of the Agreement, and maintaining developments (including existing management and access roads) with the following conditions:
 - As a priority, the developments should not impact on cultural heritage. The Owner should be aware that any developments which impact on cultural heritage will require a section 90 consent under the *National Parks and Wildlife Act 1974*.
 - The width of roads and trails will be a maximum of 4 metres wide roadway with 2 metres width for vegetation clearance on each side.
 - Clear a corridor not greater than 3 metres wide during construction or for maintenance for the installation of fences or other agreed rural structures.
 - Construct and maintain fences where required to ensure they are stock proof but will not impede the movement of, or be a danger to, native fauna.
 - Construct replacement access roads using recommendations for construction and maintenance to be determined by the Owner in consultation with the OEH.
 - Remove fallen timber and any other obstructions to maintain access.
 - Where clearing is necessary, undertake all works in a manner that minimises disturbance to soil and hydrological characteristics and is in accordance with any recommendations made in the Ashton Coal Archaeology and Cultural Heritage Plan or any other relevant Ashton Coal Environmental Management Plan as listed in 1 E.
 - Remove old internal fences and close unwanted tracks within the conservation area and facilitate restoration of native vegetation by allowing natural regeneration.

Monitoring

- u) Annexure B contains dated aerial photographs/maps showing the location of the conservation area, the conservation values and photo-points. Photographs have been taken at these photo points at the time of entering the agreement. This provides baseline information and data for ongoing monitoring and adaptive management of the conservation area.
- v) Photographs at the identified photo-points will be taken from time to time for the purposes of ongoing monitoring of the conservation values. This will be carried out in consultation with OEH. The process can include the specific monitoring as described in the Ashton Coal Flora and Fauna Management Plan (White Mining Limited 2003a).
- w) The Owner will as part of the approval issued by the NSW Department of Planning for Development Application No. 309-11-2001-i on the II October 2002 conduct regular environmental monitoring and complete Annual Environmental Monitoring Reports for the mine site. Monitoring of the cultural heritage and biodiversity values of the conservation area will be included in but not limited to these reports. This will form the basis for decisions about ongoing management actions. A copy of relevant monitoring reports will be forwarded to OEH.

ITEM 2:

The landholders shall not undertake, consent to or permit (unless specified in Item 1 of Annexure C or with prior written consent of the Director-General)

a) the sowing or planting of trees, grasses or other plants in the conservation area;

Title: Heritage Management Plan				
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- b) the introduction of any non-indigenous plants or non-indigenous fauna into the conservation area;
- c) the entry of domestic animals including pets and domestic livestock in the conservation area;
- d) the use or application of fertiliser or pesticides in the conservation area;
- e) the use of trail bikes, four-wheel drive vehicles or any other vehicle in the conservation area off any formed road;
- f) any works in the conservation area, especially any revegetation work and developments, which have the potential to impact on any cultural features;
- g) the removal of any biological or inorganic component of the conservation area; and
- h) any works which will adversely affect the natural flows and bodies of water apart from those works outlined in Item 1 clause 2.3.5 or approved mining operations.



15. Appendix F – AHIP #1131017 LW 1 – 4 AREA Eastern Panels

	Title: Heritage Management Plan				
	Document ID:	Owner: Phil Br	rown		
ľ	Last Review: April 2025		Revision Number: F		

Variation of Aboriginal Heritage Impact Permit



National Parks and Wildlife Act 1974

Your reference:

AHIP # 1130976

Our reference:

AHIMS No. 3426 / SF15/1774

Notice number:

C0000789

Contact:

Nicole Davis (02) 4908 6825

NOTICE ISSUED TO:

Mr Digby Short Manager Environment and Community Relations Aston Coal Operations Pty Limited PO Box 699 SINGLETON NSW 2330

NOTICE OF VARIATION OF ABORIGINAL HERITAGE IMPACT PERMIT NO. 1130976

Issued pursuant to section 90D (5) National Parks and Wildlife Act 1974 (NPW Act)

BACKGROUND

- A. Aston Coal Operations Limited (the applicant) applied to the Office of Environment and Heritage (OEH) to <u>vary</u> Aboriginal Heritage Impact Permit No. <u>1130976</u> (the AHIP) granted under section 90D of the NPW Act.
- B. The AHIP authorises the carrying out of:
 - Certain Aboriginal objects must not be harmed;
 - Movement of Aboriginal objects, subject to conditions;
 - · Archaeological investigation, subject to conditions;
 - Harm to Aboriginal objects through proposed works, subject to conditions.
- C. The applicant has requested for a <u>change to the timeframe</u> outlined in <u>Condition 9 (f)</u> of the AHIP, which currently states that "If agreement under condition 9(e) cannot be reached within 3 years from the date of commencement of this AHIP, then long-term storage location/s will be determined by OEH."
- D. The Registered Aboriginal Parties in consultation with the AHIP holder, the applicant, have requested that the long-term storage location/s be determined at the conclusion of all works permitted under the AHIP and that the timeframes be consist with the length of AHIP. OEH supports this decision as it will allow for all collected and salvaged Aboriginal objects to be analysed and managed collectively.
- E. OEH received the application on 16 December 2014.
- F. OEH has considered the matters set out in section 90K of the NPW Act.

Notice number C0000789 Application Ref No. A00200-2015 Printed: 3:32:27 PM 6/02/2015

Variation of Aboriginal Heritage Impact Permit



National Parks and Wildlife Act 1974

VARIATION OF ABORIGINAL HERITAGE IMPACT PERMIT

OEH has decided to grant this variation.

By this notice OEH varies AHIP No. 1130976 in the following manner:

Variation

2.1 Changes to timeframes

Operational Conditions

Certain Aboriginal Objects may be harmed or moved (Page 6-7 of the AHIP)

Which states that:

"If agreement under condition 9(e) cannot be reached within 3 years from the date of commencement of this AHIP, then long-term storage location/s will be determined by OEH".

Is replaced by:

"Upon agreement by Registered Aboriginal Parties on the long term storage location of the artefacts, OEH will be notified of the long term management plan for the artefacts. This agreement must be reached prior to the conclusion of the AHIP which is valid until 26 August 2031. Should agreement not be able to be reached between all Registered Aboriginal Parties by 26 August 2031, then long-term storage location/s will be determined by OEH."

You must provide a copy of this AHIP variation notice to each Registered Aboriginal Party referenced in AHIP number AHIP No. 1130976, within 14 days.

RICHARD BATH

Senior Team Leader Planning, Hunter Central Coast Region

Regional Operations

(By Delegation)

Date: 6 February 2015

Variation of Aboriginal Heritage Impact Permit



National Parks and Wildlife Act 1974

INFORMATION ABOUT THIS VARIATION NOTICE

- Details provided in this notice will be available on OEH's Public Register in accordance with section 188F of the NPW Act.
- You should read this Variation Notice carefully and ensure that you continue to comply with <u>all</u> conditions of the original <u>AHIP No. 1130976</u> issued on 26 August 2011, <u>as amended</u> by this Variation Notice. The format of this Variation Notice requires that it must be read in conjunction with the original AHIP.

When this notice begins to operate

 The variations to the AHIP specified in this notice begin to operate immediately from the date of this Variation Notice, unless another date is specified in this notice.

Variation of this notice

This Variation Notice may only be varied by subsequent notices issued by OEH.

Appeals against this decision

 You can appeal against this decision to the Land and Environment Court. The deadline for lodging the appeal is 21 days after the date that this notice was issued.

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Section 90 of the National Parks and Wildlife Act 1974



AHIP Issued To:

ASHTON COAL OPERATIONS PTY LIMITED, ABN 22 078 556 500, PO BOX 699, SINGLETON NSW 2330 REGISTERED POST

OEH Office

North East Branch

Environment Protection and Regulation Group (EPRG)

Office of Environment and Heritage

24 Moonee St / Locked Bag 914

COFFS HARBOUR 2450

Telephone number: (02) 6651 5946

Fax number: (02) 6651 6187

Additional details for public register

a) Name of development or project	Ashton Coal Project – mining of the underground longwall panels LW5, LW6A, LW6B, LW7A, LW7B and LW8 and associated surface operations above these panels and the eastern and western diversion of Bowmans Creek.				
b) Location	Lot 3 DP 1114623 and Lot 2 DP 1089848 being wholly within Mining Lease ML 1533 granted under the <i>Mining Act 1992</i>				
c) Local Government Area(s)	Singleton Local Government Area				
d) Description of harm authorised	 Certain Aboriginal objects must not be harmed. Movement of Aboriginal objects, subject to conditions. Archaeological investigations, subject to conditions. Harm to Aboriginal objects through the Proposed works, subject to conditions. 				
e) AHIP commencement date and diffation	Commencement: 26 August 2011 Duration: 20 years				

Section 90 of the National Parks and Wildlife Act 1974



AHIP TO HARM ABORIGINAL OBJECTS

A. Background

- (i) On 28-Jan-2011 an application was made by Ashton Coal to the Office of Environment and Heritage, Department of Premier and Cabinet (OEH) for an Aboriginal Heritage Impact Permit (AHIP) pursuant to s.90 of the National Parks and Wildlife Act 1974 (the Act).
- (ii) Ashton Coal Project gained development consent for its open cut and underground mining operations in 2002 (DA 309-11-2001-1) and is operated by Ashton Coal Operations Limited Pty (ACOL). The operations include an existing and almost complete open cut pit to the north east, and the existing underground mining operation to the south of the New England Highway. The underground mine comprises eight longwall panels and is approved to extract coal from four consecutive seams. The consent also provides for the diversion of Bowmans Creek. In addition, there is a proposed greenfield open cut mine east of Glennies Creek, which is the subject of a separate project application under Part 3A of the EP&A Act 1979.
- (iii) The AHIP application relates to the Western Panels which include longwall panels, LW5, LW6A, LW6B, LW7A, LW7B and LW8 and the Bowmans Creek Diversions. Immediately to the east of the Western Underground panels are the Eastern underground panels which include LW1, LW2, LW3, LW4.
- (iv) The western underground panels have already had coal extraction from one coal seam layer. There are a further three seams planned for extraction. Full extraction of all four seams may result in up to 8m subsidence.
- (v) There are 32 Registered Aboriginal Parties (RAP) identified with an interest in this project. OEH has received a number of representations from some of the RAPs opposing the AHIP application in its original form. The representations are that Bowmans Creek is of high cultural significance to the community citing a number of factors, including the existence of fish traps, song-line connections and association with other culturally significant features.

B. AHIP issued subject to conditions

This AHIP is issued to harm Aboriginal objects including, those identified in Schedule B, in accordance with the conditions of this AHIP.

This AHIP is issued pursuant to section 90 of the Act.



Section 90 of the National Parks and Wildlife Act 1974



Commencement and duration of AHIP

This AHIP commences on the date it is signed unless otherwise provided by this AHIP.

Unless otherwise revoked in writing, this AHIP remains in force for:

- (i) 20 years from the date of commencement of the AHIP; or
- (ii) until the date on which the AHIP final report is submitted, whichever is the earlier.

D. Proposed Works

The proposed works include:

- the construction of the eastern and western diversion of Bowmans Creek, which includes haul roads, topsoil and spoil stockpiles, site access tracks, equipment compounds and staff facilities and other associated surface works:
- the coal extraction from longwalls 5, 6A, 6B, 7A, 7B and 8 within the area shown on the attached map;
- gas wells and other activities and establishment of infrastructure to provide for the safe ongoing operation of the mine, such as, but not limited to, dewatering facilities, ventilation, and geological investigations;
- in areas where subsidence results in ground surface cracking, remediation works including ripping and filling in with soil;
- rehabilitation in the filled in soil areas may be required; and
- upgrade and maintenance of existing access and formation of new access tracks.

Note: The above works to which this AHIP applies are limited to within the area shown on the attached map and consistent with the consent conditions. A Dictionary at the end of the AHIP defines terms used in this document. Further information about this AHIP is also set out after the Dictionary.



AHIP number

Section 90 of the National Parks and Wildlife Act 1974



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Section 90 of the National Parks and Wildlife Act 1974



LAND TO WHICH THIS AHIP APPLIES

This AHIP only relates to the land located in part Lot 3 DP 1114623 and part Lot 2 DP 1089848 in the Mining Lease ML1533. This land is illustrated in the map attached to this AHIP at Attachment 1 as the area outlined in blue.

Whole or Part	Map Sheet 1:25000	Lot	DP	LGA	Description with reference to map attached to this AHIP
Part	CAMB3S	3	1114623	Singleton	This AHIP only relates to the land located in part Lot 3 DP 1114623 and part Lot 2
	-11	2	1089848	Singleton	DP 1089848 in the Ashton Coal Mine Lease ML1533 shown in Attachment 1 as the area outlined in blue.

SCHEDULES

The following schedules identify the areas and Aboriginal objects that are subject to the conditions of this AHIP.

CONDITIONS

The conditions of this AHIP specify the actions that are permitted and/or required in relation to areas and Aboriginal objects, which are detailed in the Schedules that follow.

Administrative Conditions

Responsibility for compliance with conditions of AHIP

HIP number

 The AHIP holder must ensure that all persons involved in actions or works covered by this AHIP (whether employees, contractors, sub-contractors, agents or invitees) are made aware of and comply with the conditions of this AHIP.

Project manager to oversee the actions relating to this AHIP

- A suitably qualified and experienced individual must be appointed as a project manager who is responsible for overseeing, for and on behalf of the AHIP holder, all the actions relating to this AHIP.
- 3. The individual appointed as project manager must be the project manager nominated in the application form.

Not an alternative to the nominated project manager is appointed, OEH must be notified of their contact details within 14 days of this appointment.

Section 90 of the National Parks and Wildlife Act 1974



Actions must be in accordance with AHIP application

5. All actions on the AHIP area must be carried out in accordance with the application as it applies to the AHIP area as shown in the attached map, except as otherwise expressly provided by a condition of this AHIP.

Operational Conditions

- 6. All human remains in, on or under the AHIP area must not be harmed. The discovery of any human remains must be managed in accordance with condition 28 of this AHIP.
- 7. There will be no construction within 70m of the Waterhole Site grinding grooves and appropriate controls will be implemented to protect this site from inadvertent construction activity impacts, including:
 - a. Clear fencing of the site to form a boundary between contractors and the outer perimeter of the site.
 - Inclusion of a work method statement (WMS) that outlines the responsibilities of contractors in order to ensure that the site is not impacted and which outlines the repercussions of not adhering to the WMS (e.g. fines administered by OEH).
 - c. Inclusion of a cultural awareness component in the general induction of contractors working on the project.

Certain Aboriginal objects may be harmed or moved

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- Aboriginal objects, including objects identified in Schedule B1, must be left in situ
 unless harm to the objects as a result of subsidence or the proposed works is
 likely.
- 9. If harm to Aboriginal objects as a result of subsidence, grader scrapes in accordance with condition 10 or the proposed works is likely, Aboriginal objects may be moved in accordance with the following conditions:
 - a. The movement of Aboriginal objects must be carried out in accordance with the methodology specified in Attachment 2 to this AHIP.
 - b. Until a long-term storage location is determined, Aboriginal objects must only be taken to the temporary storage location, moved to a location within the same landform or moved to another location, in consultation with a minimum of 2 RAPs.
 - c. If Aboriginal objects are moved within the same landform or to another location, the AHIP holder must record this location in accordance with OEH site cards including documenting this process through photographs, detailed written recordings and provide map grid coordinates for both the previous location and the new location. These must show environmental features that can be used to identify the new location where the Aboriginal objects are transferred.

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- d. Wherever practicable, the Aboriginal objects which are moved within the same landform should be moved as close as possible to the original location.
- e. The long-term storage location/s of the Aboriginal objects must be agreed to by the majority of RAPs. The AHIP holder must notify OEH of the location of the long-term storage location/s once it has been determined.
- f. If agreement under condition 9(e) cannot be reached within 3 years from the date of the commencement of this AHIP, the long-term storage location/s will be determined by OEH.
- 10. Grader scrapes may be carried out in the AHIP area where there will be ground disturbance from the proposed works, in order to identify the presence of previously unknown Aboriginal objects, subject to the following clauses:
 - a. Grader scrapes must not be carried out in areas where Aboriginal objects identified in Schedule B1 are located unless the objects have been moved in accordance with the conditions of this AHIP.
 - Grader scrapes must not be carried out in the Potential Pleistocene Sediment areas within Potential Archaeological Deposit 37-3-0496 as identified in the map at Attachment 1 in yellow shading.
 - Grader scrapes must not be carried out in areas where there will only be ground disturbance caused by subsidence.
- 11. Where there will be ground disturbance from the proposed works in the Potential Pleistocene Sediment areas within Potential Archaeological Deposit 37-3-0496 identified in the map at Attachment 1 in yellow shading, the area must be investigated in accordance with the methodology specified in Attachment 2 to this AHIP.
- 12. Movement of Aboriginal objects may be carried out in Potential Pleistocene Sediment areas within Potential Archaeological Deposit 37-3-0496 identified in the map at Attachment 1 in yellow shading, only upon completion of any investigations required by condition 11 and where the other conditions of this AHIP are complied with including condition 9 and condition 13.
- 13. In the event that a significant Aboriginal object/s is located and/or harmed (excluding harm as a result of subsidence) within the AHIP area, the AHIP holder must:
 - a. Not further harm the object/s.
 - Immediately cease all ground disturbance work at the particular location.

Secure the area so as to avoid further harm to the object/s.

Notify the OEH office as soon as practicable and provide any available details of the object and its location.



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- e. Not recommence any work at the particular location unless authorised in writing by the Director of OEH office.
- The Director of OEH office will determine whether or not works can recommence.
- g. The Director of OEH office may require further information in order to make a determination under condition 13(f). If the Director of OEH office requires further information, the request for information will be made within 7 working days of the notification given by the AHIP holder under condition 13(d).
- h. A determination under 13(f) will be made within 7 working days of the notification given by the AHIP holder under condition 13(d) or where further information is required under condition 13(g) within 10 working days of the Director of OEH office receiving the information.
- i. A determination under 13(f) can be made subject to conditions.

Note: A significant Aboriginal object includes:

- a) scarred or carved trees, fish traps, ground-edged tools, culturally modified wooden or bone objects, hearth, objects constituting a manufacturing site or knapping event, bora rings, grinding grooves/ petroglyphs; or
- b) other culturally significant objects as determined by the AHIP holder's archaeologist, in consultation with at least two RAPs or, if requested by either the relevant RAPs or the AHIP holder's archaeologist, as determined by an archaeologist nominated by OEH.
- 14. Aboriginal objects, including those identified in Schedule B1, may only be damaged where damage is incidental to the carrying out of the proposed works, grader scrapes and/or subsidence and where the conditions of the AHIP have been complied with.
- 15. The AHIP holder must prepare and implement an Aboriginal heritage subsidence impact monitoring program for the AHIP area. As a minimum, the monitoring program should:
 - (a) Ensure all RAPs are provided with the opportunity to monitor mine related impacts on Aboriginal sites and objects within the AHIP area, during and post coal extraction for each seam.
 - (b) Detail long term management arrangements for any Aboriginal objects within the AHIP area.
 - (c) Include a map of landform units overlying the longwall panels within the AHIP area, which identifies the location of:
 - longwall panels;
 - ii. Aboriginal sites and objects;
 - iii. predicted subsidence impacts, including type and scale of impact; and



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- iv. any mining related surface disturbance activities, including subsidence remediation works, expected to be required during the monitoring period.
- (d) Set criteria for the monitoring of Aboriginal sites and objects in consultation with the OEH prior to commencement of longwall extraction mining in the AHIP area for each seam.
- (e) The monitoring program is to be reviewed at least two months prior to longwall extraction mining in the AHIP area for each new seam and take into consideration the results of the mining in the previous seam.
- (f) Following the completion of longwall extraction mining for each seam, the AHIP holder must prepare a report on the Aboriginal heritage subsidence impact monitoring program.
- (g) As a minimum the report should address all elements of the Aboriginal Monitoring program undertaken during the reporting period and:
 - (i) include documentary evidence of Aboriginal sites and objects, such as photographs, written records and comments made by the RAPs, at each monitoring location within the AHIP area during the reporting period;
 - (ii) include a map of landform units overlying the longwall panels within the AHIP area, which identifies the location of:
 - i. longwall panels;
 - ii. Aboriginal sites and objects;
 - iii. predicted versus measured subsidence impacts for the reporting period, including type and scale of impact; and
 - any mining related surface disturbance activities, including subsidence remediation works, which were carried out during the reporting period.
 - (iii) describe any revised proposed subsidence assessment of the potential impact to Aboriginal sites and objects within the AHIP area;
 - (iv) describe the measures implemented to manage subsidence and how these were applied to reduce or avoid impacts to Aboriginal sites and objects within the AHIP area;
 - (v) include a copy of subsidence monitoring information required by the Department of Primary Industries and End of Panel report for each longwall panel mined within the AHIP area during the monitoring and reporting period;
 - (vi) describe any ongoing consultation with or involvement of RAPs in relation to the AHIP during the reporting period;
 - (vii) describe how any Aboriginal objects or 'no-harm areas' described in Schedule A were managed during the reporting period;
 - (viii) comment on the effectiveness of any Aboriginal heritage management plan that was in place during the reporting period;
 - (ix) comment on the effectiveness of any mitigation measures that were implemented;
 - (x) detail the results of any analysis of Aboriginal objects; and
- (xi) include a statement confirming that all Aboriginal Site Impact Recording Forms have been completed and submitted to the AHIMS Registrar.

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- (h) The report is to be submitted to the OEH at least two months prior to longwall extraction mining in the AHIP area in the next seam.
- 16. In the event that an Aboriginal object is harmed in a manner inconsistent with the conditions of this AHIP, the AHIP holder must immediately notify the OEH office and comply with reporting Conditions contained within "Notification and Reporting Conditions" of this AHIP.

Aboriginal Cultural History Recording

17. The AHIP holder will invite all RAPs to provide any information on the traditional cultural values and/or associations of Aboriginal people with the AHIP area. Oral history and detailed recordings, such as maps, photographs and descriptions of local landscape and topography should be collected, collated and reported with the information provided by the RAPs. The information collected and recording during this stage will need to be managed through a culturally appropriate protocol which the AHIP holder is to develop with the RAPs. At the completion of the works permitted under this AHIP, or earlier if appropriate, interpretative material, as endorsed by the RAPs, should be installed, in a location agreed between the AHIP holder and the majority of RAPs, to inform the community of the cultural values of the AHIP area.

Access routes

- 18. Where practicable, existing access routes to parts of the land where actions relating to this AHIP are to be carried out should be used. Where necessary these routes may be upgraded and maintained in accordance with the requirements of the preceding conditions of this AHIP.
- 19. Where use of existing access routes is not practicable new access routes may be formed. Any new access route must be discussed with representatives of the RAPs prior to construction.
- 20. Where practicable new access routes should be located so as to not impact on objects. Any new access route proposal will be discussed with representatives of the RAPs prior to construction.

Surface Infrastructure

- 21. Where practicable, surface infrastructure will be established in previously disturbed areas or existing infrastructure areas. Where necessary these areas may be upgraded and maintained within the existing footprint in accordance with the requirements of the preceding conditions of this AHIP.
- 22. Where use of existing areas is not practicable, new infrastructure areas may be formed. Any new area will be discussed with representatives of the RAPs prior to construction so as to minimise impact to any Aboriginal object.
- 23. Where practicable new infrastructure areas should be located so as to not impact on Aborginal objects.

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Notification and Reporting Conditions

Notification of commencement and completion of actions

- 24. Written notice must be provided to the OEH office at least seven days prior to the commencement of actions authorised by this AHIP.
- 25. Written notice must be provided to the OEH office within seven days of the completion of actions authorised by this AHIP.

Copy of this AHIP and notices to be provided to Registered Aboriginal Parties

- 26. A copy of this AHIP must be provided to each Registered Aboriginal Party, within 14 days of receipt of the AHIP from OEH, or prior to commencing works on site, whichever is soonest.
- 27. Where this AHIP is varied or transferred, a copy of the AHIP variation or transfer notice must be provided to each Registered Aboriginal Party, within 14 days of receipt of the notice.

Human remains

- 28. If any human remains are discovered and/or harmed in, on or under the land, the AHIP holder must:
 - (a) not further harm these remains;
 - (b) immediately cease all work at the particular location;
 - (c) secure the area so as to avoid further harm to the remains:
 - (d) notify the local police and OEH's Environment Line on 131 555 as soon as practicable and provide any available details of the remains and their location; and
 - not recommence any work at the particular location unless authorised in writing by OEH.

Incidents which may breach the Act or AHIP

- 29. The AHIP holder must notify the OEH office in writing as soon as practicable after becoming aware of:
 - (a) any contravention of s.86 of the Act not authorised by an AHIP; and/or
 - (b) any contravention of the conditions of this AHIP.

Reports about incidents which may breach the Act or AHIP

- 30. Where OEH suspects that an incident has occurred which may have breached the Act or AHIP, OEH may request a written incident report, which includes the following:
 - (a) the nature of the incident;

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- (b) the actual or likely impact of the incident on Aboriginal objects and/or Aboriginal places;
 - the nature and location of these Aboriginal objects and/or Aboriginal places, referring to and providing maps and photographs;
 - any conditions of an AHIP which may have been breached; and

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(e) the measures which have been taken or will be taken to prevent a recurrence of the incident.

Provision of Aboriginal Site Impact Recording Form

31. An Aboriginal Site Impact Recording Form must be completed and submitted to the AHIMS Registrar, for each AHIMS site identified in Schedule B, within one month from the date of any actions undertaken at a site as authorised by this AHIP. Any site where additional work is done within a site in this AHIP will require additional ASIR forms to be completed after each subsequent action authorised under this AHIP.

Note:

- (i) The Aboriginal Site Impact Recording Form can be found on the OEH website:
 - http://www.environment.nsw.gov.au/licences/DECCAHIMSSiteRecording Form.htm
- (ii) Contact details for the AHIMS Registrar can be found on the OEH website:
 - http://www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm

General Conditions

Indemnity

- 32. The AHIP holder agrees to indemnify and keep indemnified, the Crown in right of NSW, the Minister administering the Act, the Chief Executive of the Office of Environment and Heritage, and their employees, agents and contractors, in the absence of any wilful misconduct or negligence on their part, from and against all actions, demands, claims, proceedings, losses, damages, costs (including legal costs), charges or expenses suffered or incurred by them resulting from:
 - (a) any damage or destruction to any real or personal property; and
 - (b) injury suffered or sustained (including death) by any persons arising out of or in connection with any actions undertaken pursuant to this AHIP.

Release

- 33. The AHIP holder agrees to release to the full extent permitted by law, the Crown in right of NSW, the Minister administering the Act, the Chief Executive of the Office of Environment and Heritage, and their employees, agents and contractors, in the absence of any wilful misconduct or negligence on their part, from all suits, actions, demands and claims of every kind resulting from:
 - (a) any damage or destruction to any real or personal property; and
 - (b) injury suffered or sustained (including death) by any persons arising from or in connection with any actions undertaken pursuant to this AHIP.

Written notice

Any requirement to provide written notice to the OEH office in this AHIP may be complied with by faxing the notice to the OEH office's fax number or by sending by registered post to the OEH office's address. The OEH office's contact details are specified at the front of this AHIP.

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Schedule A: Aboriginal objects which must not be harmed

A1 Human remains

All human remains in, on or under the AHIP area must not be harmed.

Schedule B: Aboriginal objects that may be harmed through certain actions

B1

AHIP number

The following Aboriginal objects identified on AHIMS may only be harmed in accordance with the conditions of this AHIP (excluding any Aboriginal objects described in Schedule A).

	Portion of Site	AHIMS Site ID	Site Feature	Site Name	Information access	Easting	Northing	Datum
	(whole or part)				restriction? (Y/N)			
	whole	37-3-0545	Open site	Ashton EWA 51	N	317954	6404021	AGD
	whole	37-3-0544	Open site	Ashton EWA 50	Ν	317813	6404021	AGD
	whole	37-3-0516	Open site	Ash 20	. N	317953	6404179	AGD
	whole	37-3-0548	Open site	Ashton EWA 57	N	317954	6404205	AGD
	whole	37-3-0546	Open site	Ashton EWA 52	N	317847	6404293	AGD
	whole	37-3-1146	Open site	AFA50	N	317969	6404680	GDA
	whole	37-3-1143	Open site	AFA44	N	317818	6404660	GDA
	whole	37-3-1145	Open site	AFA48, AFA49, AFA58	N	317992	6404855	GDA
	whole	37-3-1144	Open site	AFA45, AFA46, AFA47	N	317603	6404853	GDA
	whole	37-3-0535	Open site	Ashton EWA 97	N	317583	6405075	AGD
()	D ENVIROR	37-3-1142	Open site	AFA25, AFA26, AFA59, AFA60,	N	317777	6405339	GDA
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			AFA61				
Part	37-3-0496	Open site and PAD	Brunkers Lane Site and PAD EWA82	N	317707	6406329	GDA
			LW4.2				
			LW4.4				
			LW5.1				
			LW5.2	* .			
			AFA56				
			AFA57				
whole	37-3-0499	Artefact	ASH 3	N	317478	646176	AGD
whole	37-3-0542	Isolated find	EWA81	N	317534	6406017	AGD
whole	37-3-0543	Open site	EWA 080	N	317463	6405942	AGD
whole	37-3-0556	Open site	EWA 089	N	317378	6405955	AGD
whole	37-3-0798	Open site	Lidell EW15	N	317877	6407170	GDA
whole	37-3-0799	Open site	LW2.1	N	317450	6404979	GDA
whole	37-3-0495	Isolated find	MOIF3	N	317465	6406023	AGD
whole	37-3-1014	Open site	REA197	N	317082	6405289	GDA
whole	37-3-1015	Open site	REA 143	N	318066	6406896	GDA
whole	37-3-1016	Open site	REA 144	N	318003	6406831	GDA
whole	37-3-1017	Open site	REA 145	N	317728	6406420	GDA
whole	37-3-1018	Open site	REA 146	N	317572	6406204	GDA
whole	37-3-1148	Open site	AFA 55	N	318326	6406063	GDA
whole	37-3-1153	Open site	AFA 51	N	318050	6405339	GDA
whole	37-3-1141	Open site	AFA21, AFA 22, AFA 23, AFA 24	N	318385	6405947	GDA
whole Co	37-3-1059	Open site	REA 187	N	317349	6405551	

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DICTIONARY

In this AHIP, unless the contrary is indicated the terms below have the following meanings:

Aboriginal object

has the same meaning as in the Act.

Act

means the National Parks and Wildlife Act 1974.

AHIMS

means the Aboriginal Heritage Information Management System

maintained by OEH, as defined in s.90Q of the Act.

AHIP area

means the land described under the heading "Land to which this AHIP

applies".

AHIP

means Aboriginal Heritage Impact Permit

AHIP holder

means the entity or person listed on the cover page under the heading

"AHIP issued to".

Application

means the completed application form and all other documents in written or electronic form which accompanied the application when it was lodged or which were subsequently submitted in support of the

application.

Community collection

means the collection of Aboriginal objects by one or all Registered

Aboriginal Parties or their representatives.

construction (for the purposes of condition

7 only)

means any activity required to be undertaken for the construction of the proposed development including site preparation, demolition, construction of roads, environmental bunds, surface facilities, rail infrastructure, and water management infrastructure, and any activity

requiring a Construction Certificate.

OEH

Office of Environment and Heritage within the Department of Premier

and Cabinet.

OEH office

means the office listed on the cover page of this AHIP.

Chief Executive

means the Chief Executive of the Office of Environment and Heritage,

Department of Premier and Cabinet.

EPRG

means Environment Protection and Regulation Group (in OEH)

Harm

has the same meaning as in the Act. In relation to Aboriginal objects, harm means the movement, damage, defacement and/or destruction of Aboriginal objects. In relation to an Aboriginal place, harm means the

damage, defacement and/or destruction of the Aboriginal place.

Proposed works

means the works described under the heading "D. Proposed Works" at

the front of this AHIP.

Public register

means the public register established under s.188F of the Act, that contains details of AHIPs issued by the Chief Executive of the Office of Environment and Heritage, as described under the heading "Information about this AHIP".

Registered Aboriginal Parties ("RAPs

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ENVIRON

means the Registered Aboriginal Parties listed in the application.

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Significant Aboriginal object

includes:

- scarred or carved trees, fish traps, ground-edged tools, culturally modified wooden or bone objects, hearth, objects constituting a manufacturing site or knapping event, bora rings, grinding grooves/ petroglyphs; or
- b) other culturally significant objects as determined by the AHIP holder's archaeologist, in consultation with at least two RAPs or, if requested by either the relevant RAPs or the AHIP holder's archaeologist, as determined by an archaeologist nominated by OEH.

temporary storage location

A secure facility at the AHIP Holder's administration offices at Glennies Creek Road, Camberwell.



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INFORMATION ABOUT THIS AHIP

Public Register

Under section 188F of the Act, the Chief Executive of the Office of Environment and Heritage is required to keep a public register containing the details of each AHIP issued. The details of this AHIP that will be published on the public register are outlined on the front page of this AHIP.

The public register is available online at www.environment.nsw.gov.au

Appeals

Under section 90L of the Act, the AHIP holder may appeal to the Land and Environment Court if they are dissatisfied with any condition of this AHIP. The appeal must be lodged within 21 days of the date this AHIP was issued.

Penalties for breach of the Act or AHIP condition

Significant penalties can be imposed by the Land and Environment Court for harm to an Aboriginal object or Aboriginal Place other than as authorised by a condition of an AHIP, or for a breach of an AHIP condition. OEH can also issue penalty notices for a breach of the Act or AHIP condition.

Responsibility for obtaining all approvals and compliance with applicable laws

The AHIP holder is responsible for obtaining and complying with all approvals necessary to lawfully carry out the work referred to in this AHIP, including but not limited to development consents.

Other relevant provisions of the National Parks and Wildlife Act

Newly identified Aboriginal objects must be notified to the Chief Executive of the Office of Environment and Heritage under s.89A of the Act using the form available online at www.environment.nsw.gov.au

Stop work orders, interim protection orders and remediation directions may be issued in certain circumstances to protect Aboriginal objects or places.

Obligation to report Aboriginal remains under Commonwealth laws

The AHIP holder may have additional obligations to report any discovery of Aboriginal remains under the *Aboriginal and Torres Strait Islander Heritage Protection Act* 1984.

Exercise of investigation and compliance powers

Officers appointed or authorised under the Act may exercise certain powers and functions, including the power to enter land.

Duration of AHIP

AHIP numbe

ETWIS AND Remains in force for the period specified in the AHIP.

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Variation of AHIP

The AHIP holder may apply to the OEH office for a variation of any conditions of an AHIP, using the AHIP variation application form available online at www.environment.nsw.gov.au. Requests for significant variations must be accompanied by evidence of further consultation with Registered Aboriginal Parties and may include payment of fees.

The conditions of an AHIP may be varied at any time by the Chief Executive of the Office of Environment and Heritage in order to correct a typographical error or to resolve an inconsistency between conditions. The AHIP holder may appeal a decision of the Chief Executive of the Office of Environment and Heritage to vary the conditions of the AHIP.

Transfer of AHIP

The AHIP holder may apply to transfer this AHIP to another person by using the AHIP transfer application form available online at www.environment.nsw.gov.au.

Surrender of AHIP

The AHIP holder may apply to surrender this AHIP by using the AHIP surrender application form available online at www.environment.nsw.gov.au. The surrender must be approved by the Chief Executive of the Office of Environment and Heritage and may be subject to conditions.

Suspension and revocation of AHIP

An AHIP may be suspended or revoked at any time at the discretion of the Chief Executive of the Office of Environment and Heritage. Prior to suspending or revoking the AHIP, the AHIP holder will be given notice and an opportunity to make submissions. The AHIP holder will be notified in writing of the final decision. The AHIP holder may appeal a decision to revoke the AHIP.

Entry to land

AHIP number

An AHIP does not automatically entitle its holder to enter land for the purpose of conducting work related to the AHIP. The AHIP holder is responsible for obtaining permission to enter land from the owner and/or occupier of the land.

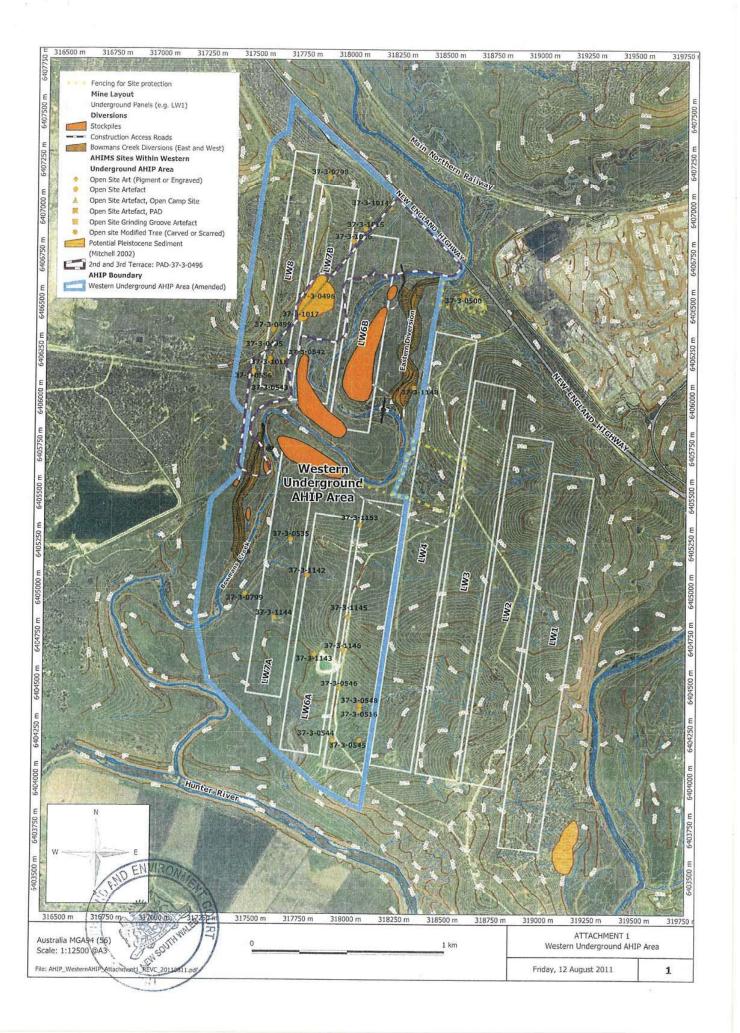
Disclosure of information pursuant to lawful requirement

This AHIP does not prevent the disclosure of any information or document in OEH's possession in accordance with any lawful requirement.

Making copies of reports

By providing a report, the AHIP holder acknowledges that OEH can use the information in that report to inform its regulatory functions, note details of that report in AHIMS and include a copy of the report in its library which may be available to members of the public.

With able to make copies of any reports provided to OEH under this AHIP.



Attachment 2

Methodology Ashton Coal Western Underground Panels

Methodology for the salvage of Aboriginal Objects

Sections 1 and 2 will be undertaken under the supervision of the AHIP holder's archaeologist and at least two registered Aboriginal Parties.

Section 1

Stage 1 - surface collection

The surface collection of known objects will be undertaken:

- Known objects as identified in Schedule B of this AHIP to be relocated and collected in accordance with the conditions of the AHIP.
- 2. GPS logging of object location
- 3. Inspection of surrounding area for additional objects recently exposed and collection and recording of same.
- 4. Recording of site context / condition at time of collection.
- 5. Artefacts to be handled stored and recorded as outlined in section 2.

Stage 2 - Assessment of subsurface potential

- 1. Each collected location to be assessed for subsurface potential.
- Subsurface potential includes any area of potential deposits, including areas of undisturbed A1 and A2 soil horizons with a depth of 200mm or more.
- 3. Where no subsurface deposit is identified go on to grader scrapes.
- Where subsurface potential identified go to test excavation.

Stage 3 - Test excavation

- 1. Test excavation in one sq metre test probes. One square metre probes in areas that have been subject to ploughing and other lateral disturbances.
- Test excavation in one sq metre probes in 50cm units in areas that have not been subject to lateral disturbance / or / have been identified as having greater stratigraphic potential ie. the area of potential Pleistocene surface.
- 3. Test probes to be extended over the sample area at appropriate spacings being no more than 15 metres between initial probe locations.
- 4. Deposit sieved through 5mm sieves at test stage.

Stage 4 - Excavation

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- Excavation to be carried out where test excavation confirms artefact bearing deposits.
- Excavation to be carried out where ancient land surfaces are confirmed, with or ENVIR Without artefacts.
 - Test probes to be expanded until the full extent of artefact bearing deposit is identified and or sterile deposit is reached.

- 4. Spoil to be excavated in arbitrary 100mm spits until such time as a stratigraphic sequence or discrete archaeological feature becomes evident. Identifiable features or stratigraphic units to be excavated as discrete units.
- 5. Evidence or otherwise of bioturbation and taphonomic processes to be recorded in detail .
- 6. All spoil to be sieved in 3mm sieves. Wet sieving is preferential.
- 7. Excavation in areas of stratified deposit to be undertaken by hand.
- 8. Excavation of the Pleistocene deposit to be undertaken in units no greater than 50cm x 50cm or less in response to features.
- Samples of charcoal and/ or uncontaminated quartz in stratified deposits to be retained for dating purposes.

Stage 5 - Grader Scrapes

Grader scrapes to be conducted in areas either cleared of potential subsurface deposits at stage one (artefact collection) or on completion of stage 2 – test excavations where no further excavation warranted or stage 3 completion of open area excavation.

- Grader scrapes to be conducted over identified areas with passes of 50-100mm, dependant on grass cover etc.
- 2. Scrapes to be continued aiming at 50mm per pass where possible.
- 3. Lenses of objects (i.e. > 5 per sqm) to be excavated in sq m units.
- Caches, hearths, uncommon knapping, special features etc to be excavated at finer detail in consultation with OEH and the community.
- Isolated finds and small disturbed scatters to be recorded, collected and their location recorded by GPS.

Section 2

Treatment of retrieved materials

Analysis

- 1. All excavated artefacts to be bagged by location, date, probe and spit at a minimum. All artefact details to be collated into a catalogue in hard and electronic format.
- 2. Artefact analysis to be carried out by an appropriate specialist.
- 3. Use wear and residue analysis to conducted where appropriate.
- 4. All artefacts retrieved from the AHIP area be recorded, at a minimum of, location (GPS), raw material, characteristics such as type, morphology and material. Morphology to include length, width, platform type, termination, neg scars on cores, retouch, usewear etc.
- Artefacts to be individually bagged or bagged in identifiable units back referenced to the catalogue. All bags labelled outside and internally with archive quality recording media.
- 6. Implements, tools, knapping events and unusual items will be forwarded to an artefact analysis specialist for detailed analysis.

Section 3

Discovery of unknown object

n 插坐wh of discovery of a previously unknown object in the course of general mine activities the following procedure should be followed.

- 1. Immediately cease all ground disturbance works in the vicinity of the object.
- 2. Secure the area
- 3. Notify the ACOL archaeologist
- 4. Archaeologist to identify if the object is a significant Aboriginal object in the terms of intent of AHIP condition 13, and to consult with at least two Registered Aboriginal Parties if necessary.

Storage of retrieved materials

All artefacts to be stored in the short term in accordance with the AHIP (condition 9)

Long term storage to be subject to continued discussions with the Aboriginal stakeholders.

If no long term storage solutions are developed OEH to be advised.





16. Appendix G – AHIP #1130976 LW5 – 8 AREA - Western Panels



Department of Planning and Environment



Phillip Brown
Environment & Community Relations Superintendent
Ashton Coal Operations Pty Limited
Level 18, 201 Sussex Street
Sydney, NSW, 2000

18/04/2023

Subject: Ashton Mine Complex (DA309-11-2001-I) - Heritage Management Plan

Dear Mr. Brown,

I refer to your request for review and approval of the Heritage Management Plan for the Ashton Mine Complex (DA309-11-2001-I).

The Department has carefully reviewed the document and is satisfied that it generally meets the requirements of the relevant conditions of approval.

Please ensure Conditions 34(a) and 34(b) are addressed, when revising the Heritage Management Plan, prior to the mining of Ravensworth Underground Mine Pikes Gully Seam Longwalls 405 and 406.

Accordingly, as nominee of the Planning Secretary, I approve the Heritage Management Plan (Revision E, dated October 2022) under Schedule 3, Condition 34.

Please ensure you make the document publicly available on the project website at the earliest convenience.

If you wish to discuss the matter further, please contact Scotney Moore, on 02 9274 6342.

Yours sincerely

Wayne Jones

Team Leader - Post Approval Resource Assessments

As nominee of the Planning Secretary

4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150

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