

GLENNIES CREEK ROAD
CAMBERWELL NSW 2330TEL: 02 6576 1111
FAX: 02 6576 1122PO Box 699
SINGLETON NSW 2330ENVIRONMENTAL CONTACT LINE:
TOLL FREE NUMBER:
WEB ADDRESS:TEL: 02 6576 1830
1800 657 639
WWW.ASHTONCOAL.COM.AU

2 December 2011

Mr David Kitto
Director, Mining & Industry
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Howard Reed

Dear Howard,

Re: Modification application to Ashton Coal Project DA 309-11-2001 – MOD 8

This letter is provided in support of the attached application (attachment 1) to modify development consent DA 309-11-2001 for the Ashton Coal Project (ACP), pursuant to clause 12 of Schedule 6a of the *Environmental Planning and Assessment Act 1979* and clause 8J(8)(c) of the *Environmental Planning and Assessment Regulations 2000*.

The application (309-11-2001 MOD 8) seeks to remove condition 1.20 to Schedule 2 and either amend or remove the plan to Schedule D from the development consent, as appropriate. The modification is required to enable the development of gas drainage wells and supporting infrastructure in areas of known Aboriginal sites and a potential archaeological deposit (PAD), above the ACP underground mine, as previously described in the environmental assessment (EA) for modification application 309-11-2001 MOD 7 (MOD 7).

On 15 June 2011 the Planning Assessment Commission (PAC), under delegation from the Minister for Planning and Infrastructure, modified DA 309-11-2001 (MOD 7) to allow (inter alia) the development of approximately fifteen surface gas wells above the Ashton underground mine (above longwall panels 6B, 7A, 7B and 8).

The Director-General's report on the assessment of the MOD 7 application considered that Aboriginal stakeholder consultation on the impacts that may potentially occur to known Aboriginal sites, objects and PAD area from developing the gas wells had been inadequate.

In determining the MOD 7 application, the PAC imposed condition 1.20 (to Schedule 2):

The development of gas drainage wells above the underground mine area must not impact on the Aboriginal cultural heritage sites/objects and areas of potential archaeological deposits identified on the plan to Schedule D.

In August 2011, Ashton Coal Operations Pty Limited (ACOL) was granted an Aboriginal Heritage Impact Permit (AHIP) by the Land and Environment Court ([2011] NSWLEC 1249) over underground longwall panels LW5, LW6A, LW6B, LW7A, LW7B and LW8, and encompassing the Bowmans Creek diversion. The AHIP (attachment 2) authorises:

- movement of Aboriginal objects;
- archaeological investigations; and
- harm to Aboriginal objects through the proposed works,

subject to conditions. Proposed works are described in the AHIP as including gas wells (to provide for the safe operation of the mine) and access tracks (upgrade, maintenance and formation of new tracks).

In determining the AHIP, the court considered that ACOL had adequately met the requirements of section 90 of the *National Parks and Wildlife Act 1974*, including Aboriginal stakeholder consultation. A copy of the AHIP application and Aboriginal stakeholder consultation logs (provided in support of the AHIP application) were provided to the Department in our response to the submission from the Office of Environment and Heritage on the MOD 7 EA (*Response to the Office of Environment & Heritage submission on development consent modification application (DA 309-11-2001 MOD 7) for the Ashton Coal Mine*, dated 3 May 2011).

Since obtaining the AHIP, Ashton has carried out additional archaeological investigations in consultation with Aboriginal stakeholders to more accurately define the area of PAD identified on the plan to Schedule D of the development consent. Further, Ashton has consulted with Aboriginal stakeholders on the development of gas wells (described in the MOD 7 EA) within the now redefined PAD area.

An archaeological assessment report including stakeholder consultation log has been prepared and is included as attachment 3 in support of this modification application. The outcomes of this additional archaeological assessment and Aboriginal stakeholder consultation include:

- Subdivision of the previously defined PAD area (as defined in the plan to Schedule D) into two separate archaeological sites:
 - a site associated with a remnant third terrace landform being the previously described potential Pleistocene PAD area (AHIMS site 37-3-0496); and
 - a site associated with a second terrace landform, now described as the Bowmans Creek Terrace Site.
- Testing in the previously described potential Pleistocene PAD area has determined that artefacts are of Holocene age, occurring within topsoil overlying an eroded surface of Pleistocene age.
- The boundaries of this PAD area have been modified and redefined to be coincident with a remnant third terrace.
- The AHIMS site card (37-3-0496) has been amended to reflect the redefined PAD boundaries (see Appendix C to attachment 3).
- The southern extent of the previously defined PAD is characterised by a continuum of artefacts at varying densities and has been redefined to be coincident with a second terrace.
- A new AHIMS site card has been completed for the amended southern area of PAD, now referred to as the Bowmans Creek Terrace Site (see Appendix D to attachment 3).
- An agreed salvage program consistent with the AHIP conditions will be implemented to manage the disturbance of Aboriginal objects within the redefined PAD from the development of gas wells and associated surface infrastructure.

A further outcome of this assessment is that now only one proposed gas well is required to be located in an area of redefined PAD, this being gas well 15 (as described in the MOD 7 EA) to be located in the Bowmans Creek Terrace Site. ACOL has investigated whether it is technically feasible to locate this gas well to an area outside the Bowmans Creek Terrace Site. However, mine planning, gas management and land ownership constraints dictate that the well is required to be located within 100 m of the start line of the longwall block and within 30 m of the tailgate (i.e., in an up dip seam location). Hence it is technically and logistically infeasible to relocate the gas well to outside the redefined site. Notwithstanding, ACOL is committed to minimise surface disturbance works associated with constructing and operating gas well 15 within the Bowmans Creek Terrace Site as far as practically possible. Further, as agreed with Aboriginal stakeholders, a salvage program will be implemented in accordance with the AHIP to ensure that impacts to Aboriginal objects are appropriately managed. As indicated no other gas well is proposed to be developed in an area of PAD.

ACOL has delayed making this modification application to allow the matter brought before the Land and Environment Court ([2011] NSWLEC 213), which challenged the validity of the MOD 7 approval to allowing construction and operation of the 15 gas wells, to be resolved. This case was dismissed on 30 November 2011. In resolving this issue a temporary injunction preventing ACOL from carrying out any works associated with the development of the gas wells approved by MOD 7 has now been lifted. The court case, temporary injunction and imposed condition 1.20 (to Schedule 2 of DA 309-11-2001) have constrained ACOL's ability to construct the gas wells as intended in the MOD 7 EA. Consequently, the timing and need for developing gas well 15 has now become a critical development issue for ACOL. To allow the safe operation of LW8, the current mine development schedule requires gas well 15 to be operational by early February 2012. ACOL has estimated it will take at least three weeks to construct the gas well. This

includes salvaging Aboriginal objects in the impacted area of the Bowmans Creek Terrace Site (in accordance with the agreed approach and AHIP conditions); implementing environmental and safety controls for both the construction and operational phases; and the actual drilling and completion of the well.

In summary, ACOL has:

- An approved AHIP, which allows impacts to Aboriginal objects and PAD areas from surface disturbing activities associated with the development of gas drainage wells and access tracks.
- Redefined the areas of PAD and completed AHIMS site cards accordingly.
- Identified that only one gas drainage well is required to be constructed in an area of PAD.
- Carried out further archaeological assessment on the impact of developing gas drainage wells on Aboriginal sites and redefined PAD areas.
- Consulted with Aboriginal stakeholders on the impacts of the gas drainage wells on Aboriginal sites and redefined PAD areas.
- An agreed approach to managing Aboriginal objects impacted by the development of the gas well within the PAD with Aboriginal stakeholders.

Therefore, ACOL requests that:

- Condition 1.20 to Schedule 2 of DA 309-11-2001 be removed.
- The plan to Schedule D of DA 309-11-2001 either be removed or, if required, be replaced with the attached revised plan (attachment 4).

I trust this information is sufficient to enable the requested minor amendments to DA 309-11-2001 to be made.

Please don't hesitate to contact me if further information or clarification on any of the above is required.

Finally, it would be appreciated if the Department could advise ACOL of the appropriate application fee for this modification request.

Yours faithfully



Michael Moore
Approvals Manager

Attachments:

1. Modification application 309-11-2001 MOD 8.
2. Approved AHIP.
3. Aboriginal Archaeological Assessment.
4. Schedule D replacement plan.

ATTACHMENT 1

Request to modify a major project



NSW GOVERNMENT
Department of Planning

Date duly made: ___/___/___

Modification No. 309-11-2001 MOD-8

1. Before you lodge

This form is required under section 75W of the *Environmental Planning and Assessment Act 1979* (the Act) in order to request the Minister to modify the Minister's approval to carry out a project or concept plan to which Part 3A of the Act applies.

Before making this request, it is recommended that you first consult with the Department of Planning (the Department) concerning your modification. The Director-General may issue environmental assessment requirements that must be complied with before your request will be considered by the Minister. If the changes proposed by the modification will result in a project that is consistent with the existing approval, the Minister's approval for a modification is not required.

Disclosure Statement

Persons making a request to modify a project or concept plan are required to declare reportable political donations (including donations of or more than \$1,000) made in the previous two years.

Note: For more details about political donations disclosure requirements, including a disclosure form, go to www.planning.nsw.gov.au/donations.

Lodgement

All modification requests must be lodged with the Director-General of the Department of Planning, by courier or mail. An electronic copy should also be e-mailed to the assessment contact officer assigned to the project.

NSW Department of Planning
Ground floor, 23-33 Bridge Street, SYDNEY NSW 2000
GPO Box 39 SYDNEY NSW 2001
Phone 1300 305 695

2. Details of the proponent

Company/organisation/agency		ABN	
ASHTON COAL OPERATIONS PTY LIMITED		22 078 556 500	
<input checked="" type="checkbox"/> Mr <input type="checkbox"/> Ms <input type="checkbox"/> Mrs <input type="checkbox"/> Dr <input type="checkbox"/> Other			
First name		Family name	
BRIAN		WESLEY	
Position			
GENERAL MANAGER			
STREET ADDRESS			
Unit/street no.		Street name	
		GLENNIES CREEK ROAD	
Suburb or town		State	Postcode
CAMBERWELL		NSW	2330
POSTAL ADDRESS (or mark 'as above')			
PO BOX 699			
Suburb or town		State	Postcode
SINGLETON		NSW	2330
Daytime telephone		Fax	Mobile
(02) 6576 1111		(02) 6576 1122	
Email			
bwesley@ashtoncoal.coam.au			

3. Identify the land

STREET ADDRESS (where relevant)

Unit/street no.

Street or property name

Suburb, town or locality

Postcode

Local government area(s)

State Electorate(s)

REAL PROPERTY DESCRIPTION

Note: The real property description is found on a map of the land or on the title documents for the land. If you are unsure of the real property description, you should contact the Department of Lands.

Please ensure that you place a slash (/) to distinguish between the lot, section, DP and strata numbers. If the proposed modification applies to more than one piece of land, please use a comma to distinguish between each real property description.

OR: detailed description of land attached:

MAP: A map of the site and locality should also be submitted with this request.

4. Details of the original major project or concept plan

Briefly describe what the original approval allows

What was the original project application no.?

What was the date of the approval?

What was the original application fee?

Note: Clause 245K of the *Environmental Planning and Assessment Regulation 2000* provides information on calculating the maximum fee for a request for modification.

5. Describe the modification you propose to make to the approval

Describe the proposed modification

Your modification request may need to be accompanied by an Environmental Assessment, including plans. An electronic and hard copy of this document will be required.

ESTIMATED CAPITAL INVESTMENT VALUE

Please indicate the estimated capital investment value (CIV) of the modification to the project approval or concept plan (excluding GST).

FULL TIME EQUIVALENT JOBS

Please indicate the number of jobs created by the proposed modification. This should be expressed as a proportion of full time equivalent (FTE) jobs over a full year.

Construction jobs (FTE)

Operational jobs (FTE)

6. Landowner's consent (where required)

As the owner(s) of the above property, I/we consent to this request being made by the proponent:

Land

Signature

Name

Date

Land

Signature

Name

Date

Note: Under Clause 8F of the *Environmental Planning and Assessment Regulation 2000* (the Regulation), certain applications for approval under Part 3A of the Act do not require consent of the landowner, however, the proponent is required to give notice of the application (e.g. linear infrastructure, mining & petroleum projects, and critical infrastructure).

7. Political donation disclosure statement

Persons making a request to modify a project or concept plan are required to declare reportable political donations (including donations of or more than \$1,000) made in the previous two years.

Have you attached a disclosure statement to this request?

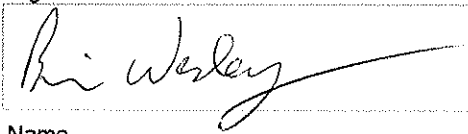
- Yes
- No

Note: For more details about political donations disclosure requirements, including a disclosure form, go to www.planning.nsw.gov.au/donations.

8. Proponent's signature

As the proponent(s) of the project and in signing below, I/we hereby:

- provide a description of the modification to the project approval or concept plan and address all matters required by the Director-General pursuant to Section 75W of the Act, and
- declare that all information contained within this form is accurate at the time of signing.

Signature


Name
BRIAN WESLEY
(GENERAL MANAGER)

Date
2 DECEMBER 2011

In what capacity are you signing if you are not the proponent

Name, if you are not the proponent

Political Donations Disclosure Statement to Minister or the Director-General

If you are required under section 147(3) of the Environmental Planning and Assessment Act 1979 to disclose any political donations (see Page 1 for details), please fill in this form and sign below.

Disclosure statement details				
Name of person making this disclosure ASHTON COAL OPERATION PTY LIMITED	Planning application reference (e.g. DA number, planning application title or reference, property address or other description) MODIFICATION TO DA 309-11-2001 MOD 8			
Your interest in the planning application (circle relevant option below)				
You are the APPLICANT <input checked="" type="radio"/> YES / NO	OR			
You are a PERSON MAKING A SUBMISSION IN RELATION TO AN APPLICATION YES / NO				
Reportable political donations made by person making this declaration or by other relevant persons				
* State below any reportable political donations you have made over the 'relevant period' (see glossary on page 2). If the donation was made by an entity (and not by you as an individual) include the Australian Business Number (ABN).				
* If you are the applicant of a relevant planning application state below any reportable political donations that you know, or ought reasonably to know, were made by any persons with a financial interest in the planning application, OR				
* If you are a person making a submission in relation to an application, state below any reportable political donations that you know, or ought reasonably to know, were made by an associate.				
Name of donor (or ABN if an entity)	Donor's residential address or entity's registered address or other official office of the donor	Name of party or person for whose benefit the donation was made	Date donation made	Amount/ value of donation
N/A	N/A	N/A	N/A	N/A
<i>Please list all reportable political donations—additional space is provided overleaf if required.</i>				
By signing below, I/we hereby declare that all information contained within this statement is accurate at the time of signing.				
Signature(s) and Date 2/12/2011				
Name(s) PENG SHEN CHIEF FINANCIAL OFFICER				

ATTACHMENT 2

Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

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	<ul style="list-style-type: none">• 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 duration	<i>Commencement:</i> 26 August 2011 <i>Duration:</i> 20 years



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

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.



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

C. 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.



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

CONTENTS

LAND TO WHICH THIS AHIP APPLIES.....	5
SCHEDULES	5
CONDITIONS.....	5
Administrative Conditions.....	5
Operational Conditions.....	6
Notification and Reporting Conditions	11
General Conditions	12
Schedule A: Aboriginal objects which must not be harmed	13
Schedule B: Aboriginal objects that may be harmed through certain actions.....	13
DICTIONARY	15
INFORMATION ABOUT THIS AHIP.....	17

ATTACHMENT 1 - Map of AHIP area

ATTACHMENT 2 - Methodology



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

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 DP 1089848 in the Ashton Coal Mine Lease ML1533 shown in Attachment 1 as the area outlined in blue.
		2	1089848	Singleton	

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

1. 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

2. 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.

4. If an alternative to the nominated project manager is appointed, OEH must be notified of their contact details within 14 days of this appointment.



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

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.
 - b. 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

8. 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.



AHIP number

Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

- 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.
 - b. 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.
 - c. 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.
 - b. Immediately cease all ground disturbance work at the particular location.
Secure the area so as to avoid further harm to the object/s.
 - d. Notify the OEH office as soon as practicable and provide any available details of the object and its location.



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

- e. Not recommence any work at the particular location unless authorised in writing by the Director of OEH office.
- f. 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:
 - i. longwall panels;
 - ii. Aboriginal sites and objects;
 - iii. predicted subsidence impacts, including type and scale of impact; and



AHIP number

Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

- 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.
- (c) 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
 - iv. 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.



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

(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 Aboriginal objects.



AHIP number

Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

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



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

- (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/DECCAHIMSSiteRecordingForm.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

34. 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.



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

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

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 (whole or part)	AHIMS Site ID	Site Feature	Site Name	Information access restriction? (Y/N)	Easting	Northing	Datum
<i>whole</i>	37-3-0545	<i>Open site</i>	<i>Ashton EWA 51</i>	<i>N</i>	<i>317954</i>	<i>6404021</i>	<i>AGD</i>
<i>whole</i>	37-3-0544	<i>Open site</i>	<i>Ashton EWA 50</i>	<i>N</i>	<i>317813</i>	<i>6404021</i>	<i>AGD</i>
<i>whole</i>	37-3-0516	<i>Open site</i>	<i>Ash 20</i>	<i>N</i>	<i>317953</i>	<i>6404179</i>	<i>AGD</i>
<i>whole</i>	37-3-0548	<i>Open site</i>	<i>Ashton EWA 57</i>	<i>N</i>	<i>317954</i>	<i>6404205</i>	<i>AGD</i>
<i>whole</i>	37-3-0546	<i>Open site</i>	<i>Ashton EWA 52</i>	<i>N</i>	<i>317847</i>	<i>6404293</i>	<i>AGD</i>
<i>whole</i>	37-3-1146	<i>Open site</i>	<i>AFA50</i>	<i>N</i>	<i>317969</i>	<i>6404680</i>	<i>GDA</i>
<i>whole</i>	37-3-1143	<i>Open site</i>	<i>AFA44</i>	<i>N</i>	<i>317818</i>	<i>6404660</i>	<i>GDA</i>
<i>whole</i>	37-3-1145	<i>Open site</i>	<i>AFA48, AFA49, AFA58</i>	<i>N</i>	<i>317992</i>	<i>6404855</i>	<i>GDA</i>
<i>whole</i>	37-3-1144	<i>Open site</i>	<i>AFA45, AFA46, AFA47</i>	<i>N</i>	<i>317603</i>	<i>6404853</i>	<i>GDA</i>
<i>whole</i>	37-3-0535	<i>Open site</i>	<i>Ashton EWA 97</i>	<i>N</i>	<i>317583</i>	<i>6405075</i>	<i>AGD</i>
<i>whole</i>	37-3-1142	<i>Open site</i>	<i>AFA25, AFA26, AFA59, AFA60,</i>	<i>N</i>	<i>317777</i>	<i>6405339</i>	<i>GDA</i>



AHIP-number

Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

Part	Reference	Description	Category	Code	Value	Value	Code
				AFA61			
	37-3-0496	Open site and PAD	Brunkers Lane Site and PAD	N	317707	6406329	GDA
			EWA82				
			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	37-3-1059	Open site	REA 187	N	317349	6405551	GDA



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

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 <i>National Parks and Wildlife Act 1974</i> .
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")	means the Registered Aboriginal Parties listed in the application.



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

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.

temporary storage location

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



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

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

This AHIP remains in force for the period specified in the AHIP.



Aboriginal Heritage Impact Permit

Section 90 of the National Parks and Wildlife Act 1974



Office of
Environment
& Heritage

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

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.

OEH is 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:

1. 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.
2. 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.
4. 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.
2. 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

1. Excavation to be carried out where test excavation confirms artefact bearing deposits.
2. 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 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.
9. 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.

1. 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.
4. Caches, hearths, uncommon knapping, special features etc to be excavated at finer detail in consultation with OEH and the community.
5. 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 be 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.
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.

Section 3

Discovery of unknown object

In the event 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 ACOI 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.



ATTACHMENT 3

INSITE HERITAGE PTY LTD
PO Box 98
WANGI WANGI NSW 2267
PH/FAX 02 49755 818
admin@insiteheritage.com.au

***Ashton Coal Operations Pty Limited
Aboriginal Archaeological Assessment
Development of Gas Drainage Boreholes in areas of
Potential Archaeological Deposits
Camberwell, Hunter Valley, NSW***

Report to
Ashton Coal Operations Pty Limited

December 2011

INSITE HERITAGE PTY LTD
PO Box 98
WANGI WANGI NSW 2267
PH/FAX 02 49755 818
admin@insiteheritage.com.au

Project Coordinators	ACOL	J Gruhn
	Insite Heritage	A Besant
Our Reference	ACOL_2011_MOD8_Final	
Date	2 nd December 2011	
Authors	A Besant BA (Hons)	

Contents

1.0 INTRODUCTION	4
1.1 SCOPE OF WORK.....	4
1.2 CONSULTATION.....	5
1.3 EXISTING ENVIRONMENT	6
2.0 STATUTORY REQUIREMENTS	9
3.0 GAS DRAINAGE BOREHOLE DEVELOPMENT	9
4.0 ASSESSMENT RESULTS	9
4.1 ABORIGINAL CULTURAL HERITAGE	9
4.2 HISTORIC SITE	12
5.0 SUMMARY	13
6.0 RECOMMENDATIONS	15
7.0 BIBLIOGRAPHY	16
APPENDIX A	17
ADDITIONAL CONSULTATION	17
APPENDIX B	19
STAKEHOLDER RECOMMENDATION CHOICE FORMS	19
APPENDIX C	29
37-3-0496 REVISED SITE CARD	29
APPENDIX D	35
BOWMANS CREEK TERRACE SITE CARD	35
 FIGURE 1: PLAN SHOWING REDEFINED PAD ASSOCIATED WITH 37-3-0496	 8
FIGURE 2 SITE BOUNDARIES 37-3-0496 AND THE BOWMANS CREEK TERRACE SITE.	12

1.0 Introduction

This cultural heritage impact assessment report has been prepared for Ashton Coal Operations Pty Limited (ACOL) in support of a minor modification to development consent DA 309-11-2001 for the Ashton Coal Project (ACP).

The proposed modification involves amending or removing condition 1.20 to schedule 2 of the development consent to enable gas drainage boreholes and supporting infrastructure development in areas of Potential Archaeological Deposits (PAD) above the ACP underground mine. This condition currently restricts the development of gas drainage boreholes in the PAD area identified in schedule D of the consent.

Condition 1.20 to schedule 2 of the consent was imposed by the Department of Planning and Infrastructure in its approval of a prior modification (MOD 7) to DA 309-11-2001 which sought to develop up to 15 gas drainage boreholes across the underground mine. In imposing the condition, the Department argued that ACOL had not consulted sufficiently with Aboriginal community stakeholders over the potential impact of the gas drainage boreholes on Aboriginal objects, including the PAD.

ACOL has since obtained an Aboriginal Heritage Impact Permit (AHIP) for the area above longwall panels 5 to 8, which includes the PAD area identified in schedule D of the consent. The AHIP authorises impacts to Aboriginal objects caused from the carrying out of certain prescribed activities, including development of gas drainage boreholes.

As a result of salvage works undertaken in accordance with the AHIP the PAD area associated with site 37-3-0496 (Brunkers Lane Site) has been redefined in area and character. The result is that site 37-3-0496 boundaries have been defined as a small area of remnant creek terrace and a new site "Bowmans Creek Terrace Site" or BCT site has been recorded to include the southern portion of PAD area that now forms the BCT site boundaries (Appendix B). This site is characterised by a continuum of artefacts at varying densities, part of which has been salvaged for the western creek diversion and associated haul road.

This report briefly describes additional consultation carried out with ACOL registered Aboriginal community stakeholders on the testing of the area of the proposed gas drainage borehole 15 located within the BCT site boundary. The report also discusses the management and mitigation measures to be applied during the development of any gas drainage borehole in that area.

1.1 Scope of Work

The aim of the cultural heritage impact assessment was to, in consultation with Aboriginal community stakeholders:

- Clarify impacts to Aboriginal objects and areas of PAD that may result from the development of gas drainage boreholes and associated surface infrastructure.

- Determine the requirements for archaeological testing of PAD areas to clarify the extent and or existence of PAD in areas where gas drainage boreholes are proposed.
- Agree on appropriate management or mitigation measures for Aboriginal objects encountered in areas where gas drainage boreholes in PAD areas are proposed.
- Carry out testing, as authorised by the AHIP, to confirm or otherwise the suspected subsurface presence of objects.

1.2 Consultation

Consultation was undertaken with the following ACOL registered Aboriginal stakeholder groups:

On 10 October 2011:

Gidawaa Walang	Annie Hickey
Upper Hunter Wonarua Council	Georgina Berry
Kayaway Eco Cultural & Heritage Services	Katrina Cavanagh
Wattaka Wonarua Cultural Consultants	Paulette Ryan
Wonn1Consulting	Arthur Fletcher
Yinnar Cultural Services	Shane Wilkinson
Carranwonga Consultants	Justin Mathews
Hunter Valley Cultural Surveying	Luke Hickey
Upper Hunter Heritage Consultants	Daryl Mathews.

On 11 October 2011:

Yarrowalk/ Tocomwall	Barry French
Muswellbrook Cultural Consultants	Brian Horton
12 th October 2011	
Cacatua Cultural Consultants	George Sampson
Wonarua Cultural Heritage	Shannon Griffiths
Gidawaa Walang	Annie Hickey
Hunter Valley Aboriginal Corporation	Nerida Saunders
Ungooroo Aboriginal Corporation	Trefor Sproule
Mingga Cultural Consultants	Tony Matthews
Yinnar Cultural Services	Shane Wilkinson
Wanaurah Local Aboriginal Lands Council	Les Atkinson
Wonarua Nation Aboriginal Corporation	Maree Waugh

The location and need for the gas drainage boreholes and supporting infrastructure was explained to the stakeholders by Cassandra Ferguson (ACOL Environmental Coordinator) and John Gruhn (ACOL Mining Engineer). The information presented explained that:

- ACOL has an AHIP granted by the Land and Environment Court for the area.
- The AHIP authorises impacts to Aboriginal objects and the PAD area from certain prescribed development activities, including gas drainage boreholes.
- ACOL will be submitting a minor modification application to remove a development consent condition that currently restricts the development of gas drainage boreholes in the PAD area. The modification is required to remove the conflict that now exists between the AHIP and the development consent.

- Subsequent clearance of Aboriginal objects will be undertaken in accordance with the AHIP conditions and agreed management measures once the consent modification is approved.
- The results of site investigations conducted under the AHIP will inform the impact assessment to be submitted in support of the consent modification application.

Limitations in the location of gas drainage boreholes and potential management and mitigation measures were discussed during the consultation sessions.

The stakeholders were familiar with the site and location of the PAD area, having spent three weeks subsurface testing in areas previously thought to be PAD. Aboriginal community stakeholders agreed that subsurface test probes would be required to inform:

- Confirmation of the presence of objects.
- Site integrity.

Draft reports were circulated amongst stakeholders in the field on the 3rd, 4th and 7th of November 2011, taking advantage of the group field rotations. In addition, stakeholder representatives participating in unrelated works were provided feedback forms up to the 23rd November 2011. Stakeholders that did not provide comment throughout this process were contacted by phone. The preferred management option identified by the consultation process is summarised in Table 3. A copy of the consultation log and consultation feedback forms are included in Appendices A and B respectively.

1.3 Existing Environment

ACOL proposed developing a number of gas drainage boreholes within an area previously defined as PAD (associated with recorded site 37-7-0496) in the MOD 7 consent modification application. This PAD area is large and contains several loci where artefacts had been recorded in small erosion scars or exposures.

The PAD area has been investigated by sub surface testing under the recently granted AHIP. This testing has indicated that the northern part of the Bowman Creek terrace, previously proposed as PAD, is of low archaeological potential being recent (historic) alluvial deposit that has been heavily ploughed. Other areas have been identified as containing a continuum of Aboriginal objects in varying densities.

The main PAD area of potential Pleistocene surface has been tested and confirmed to be a former terrace of Bowmans Creek, Pleistocene in age, with Holocene age artefacts occurring in topsoil that has accumulated on the eroded Pleistocene surface. The artefacts are confined to the topsoil above the clay unit in this area. The potential for a Pleistocene deposit has been discounted on the basis of the testing and the section evident in the sediment basin excavated within the site by Daracon as part of Xstrata's relocation of Lemmington Road, for its Ravensworth Operations Project.

The known sites on the Bowman's Creek terrace are summarised in Table 1.

Table 1: Sites known to occur within the Underground mine area

AHIMS ID	Site Name	Recorded Site	Description / status
37-3-0496	Brunkers Lane (EWA82)	Witter 2002	Small artefact scatter collected by Umwelt 2011
Associated PAD	LW4.2	Insite Heritage	Small scatter collected by Insite Heritage 2011
	LW4.4	Insite Heritage	Small scatter collected by Insite Heritage 2011
	LW5.1	Insite Heritage	Small scatter collected by Insite Heritage 2011
	LW5.2	Insite Heritage	Small scatter collected by Insite Heritage 2011
	AFA 56	ACOL	Small scatter collected by Insite Heritage 2011
	AFA57	ACOL	Small scatter collected by Insite Heritage 2011
37-3-1017	REA 145	Umwelt	Isolated find - Collected by Insite Heritage 2011
37-3-0556	EWA 089	Witter	Collected by Insite Heritage 2011
37-3-0543	EWA 080	Witter	Collected by Insite Heritage 2011

In addition to the above, test probes have been excavated as part of a broader site investigation program of the PAD area, yielding the following results:

1. The area of PAD can be modified and the site characteristics and boundaries redefined.
2. The area of PAD associated with site 37-3-0496 has been reduced to the remnants of the third terrace (see Figure 1), with Holocene age artefacts restricted to within topsoil above an eroded Pleistocene surface. A sample of this site has been salvaged in accordance with the AHIP.
3. The southern end of the PAD located on the Holocene terrace (see Figure 1) has been characterised as a continuum of artefacts at varying densities. Areas of the site have been salvaged in accordance with the AHIP. Loci of high density have been identified and will be retained in-situ and not impacted.
4. The site card for 37-3-0496 has been amended to document the change to the site boundary (Appendix C).
5. The southern area of PAD has been renamed the Bowmans Creek Terrace Site and a site card submitted accordingly (Appendix D).



Figure 1: Plan showing redefined PAD associated with AHIMS site 37-3-0496

2.0 Statutory Requirements

ACOL operates under development consent DA 309-11-2001, granted by the Minister in October 2002. This consent has been subject to a number of previous modifications.

ACOL also holds an AHIP that allows for the impact of particular sites and areas from prescribed activities. The AHIP prescribes measures for the salvage and management of objects, where salvage is required, and the preservation of objects where possible. The AHIP was granted by the Land and Environment Court in August 2011.

ACOL is seeking a minor modification to DA 309-11-2001 under Section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act) to amend or remove condition 1.20 to schedule 2 and the plan in Schedule D.

The development of gas drainage boreholes and subsequent impacts on Aboriginal objects and the PAD (defined as site 37-3-0496 on the Aboriginal Heritage Information Management System - AHIMS) is an allowable activity under the AHIP.

3.0 Gas drainage borehole development.

As noted above gas drainage boreholes and associated surface infrastructure were described in detail in ACOL's Environmental Assessment Report in support of development consent modification application MOD 7 (ACOL, 2011).

4.0 Assessment results

4.1 Aboriginal cultural heritage

Where indicated as being potentially impacted by approved activities, surface artefacts associated with site 37-3-0496 have been collected in accordance with the conditions of the AHIP. In addition, test excavations within the PAD area have been conducted and the distribution of subsurface objects determined. Patterns of distribution have been discerned, the PAD area lifted, and site boundaries defined.

Consequently, the location of only one proposed gas drainage borehole (location number 15 in MOD 7) is now required to be developed in an area of high archaeological potential. While the option of relocating this gas drainage borehole was considered, there is no scope to relocate the borehole out of this archaeological zone.

Test pits in adjacent areas have demonstrated a continuum of Aboriginal objects across the second terrace in various densities and with lateral disturbance (all having been subject to bioturbation and ploughing). This suggested that testing of the proposed gas borehole location (some 50 metres west of the currently described testing) would be required to confirm the presence of objects and the integrity of deposits in the area of the proposed gas drainage borehole and associated surface compound area. In addition, an historic site (potential farm hut) has been uncovered on the southern boundary of the proposed location

of the gas drainage borehole compound, which may have impacted on the context of Aboriginal objects, and testing would be required to inform the assessment of the integrity of the deposit within this proposed compound.

Two test pits were excavated within the proposed compound area to test for the continuation of subsurface objects found in test probes to the east of the compound location. The test pits were placed 6 metres apart within the central area of the proposed compound as agreed with the stakeholders during the consultation process.

Artefacts were located in both test pits, and the density of artefacts was consistent with the test probes located immediately east on the PAD. Artefact numbers were consistent over the two test pits demonstrating that the distribution of artefacts continues across the higher areas of the southern terrace.

Table 2 Artefact counts per spit per square metre

Probe	Spit	Artefact Count
Probe 15.1	1	18
	2	8
	3	7
	4	0
Probe 15.2	1	12
	2	5
	3	5
	4	0
Total Probe 15.1	33	Total Probe 15.2 22

Artefact numbers showed a total of 33 and 22 for Pits 15.1 and 15.2 respectively distributed within the top 300mm of soil.

In addition the spoil heap from an excavated hole adjacent to, but not contemporary with, the historic feature was sieved in a 5mm sieve. This resulted in an additional 106 artefacts from approximately a 2m x 2m hole (equivalent to about 26 per square metre – consistent with the test probes).

This distribution and density pattern is consistent with results from test probes in a location associated with the Bowmans Creek Diversion construction haul road, although the densities in spit 1 are higher than areas to the east where the highest densities were in the A2 soil horizon immediately above clay. This may be a factor of disturbance related to the potentially identified farm hut within the compound area (see below).



Plate 1 West section test pit 15.1 west



Plate 2 West section test pit 15.2 east

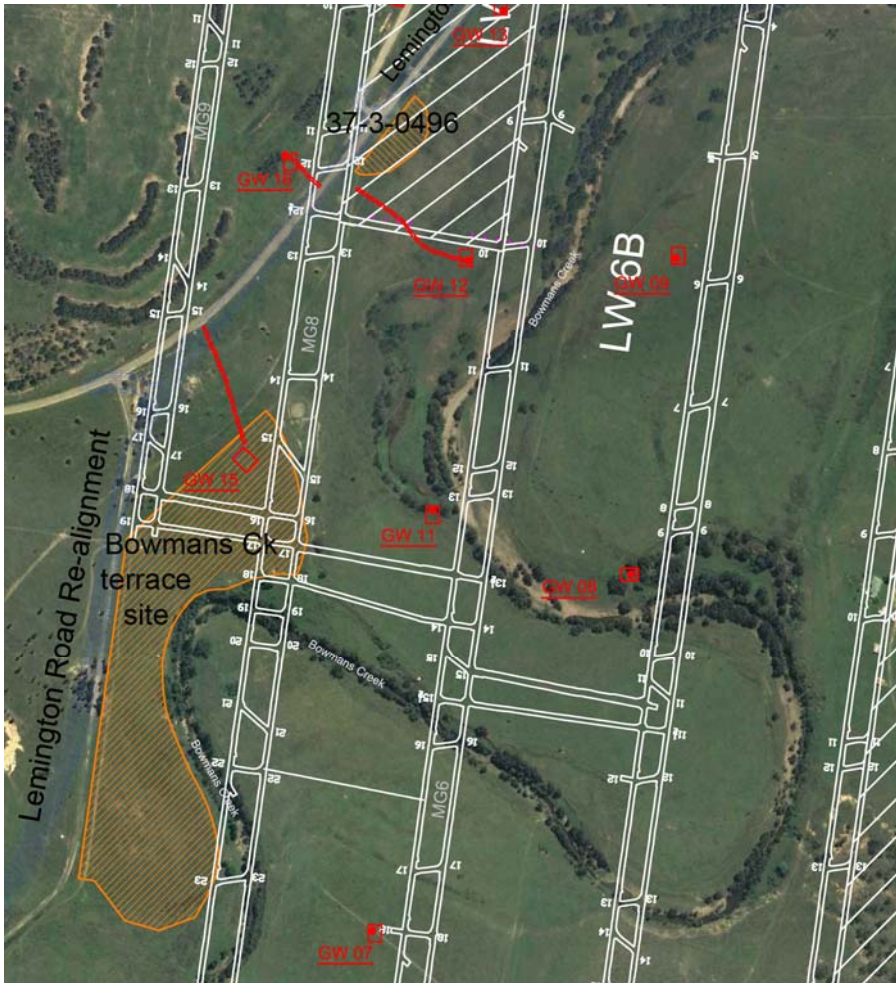


Figure 2 Site boundaries 37-3-0496 and the Bowmans Creek Terrace site.

4.2 Historic site

An historic site has also been located within the proposed gas drainage borehole compound area. It has been identified as a possible shepherds' hut or outstation (Plate 3). The site will be surface recorded in detail and the gas drainage borehole compound relocated to avoid impacting the historic site. An excavated hole with spoil heap which predates ACOL's ownership of the property was located two metres from the brick floor however it was not considered to be contemporary with the hut remains.



Plate 3 The historic brick floor and stone mound (probable chimney) remains located within the confines of the proposed gas borehole compound.

5.0 Summary

Consultation has been carried out with ACOL Aboriginal community stakeholders during site visits and testing and mitigation measures developed with Aboriginal community stakeholder input. The following mitigation measures were put forward and discussed during the consultation sessions:

- Avoidance. This option has been considered, however, due to mine engineering, gas management and landownership constraints and the consistent distribution of objects across this area of the site, moving the compound within the site was not considered beneficial or viable. It is however noted that the location of the gas drainage borehole and surface compound has been adjusted by about ten metres to the north, in order to avoid an identified historic site.
- Salvage, in accordance with the AHIP.
- Constructing the gas drainage borehole surface compound on a geofabric liner to minimise surface and sub-surface ground disturbance. However, as the area will be subject to subsidence during longwall coal extraction it cannot be guaranteed that subsidence cracking within the compound will not require remediation.

- Stakeholders were asked to to nominate their preferred management approach on the form provided (Appendix B) or comment by telephone. A summary of response is provided in Table 3.

Table 3 Stakeholder Management Choice

Stakeholder Group	Representative	Option 1 Salvage	Option 2 Geofabric	No Response
Gidawaa Walang	Annie Hickey	Yes		
Upper Hunter Wonarua Council	Georgina Berry	Yes		
Kayaway	Katrina Cavanagh	Yes		
Wattaka	Paulette Ryan	Yes		
Wonn1	Arthur Fletcher	Yes		
Yinnar	Shane Wilkinson	Yes		
Carrawonga	Justin Matthews	Yes		
Hunter Valley Cultural Surveying	Luke Hickey	Yes		
Upper Hunter Heritage Consult.	Darryl Matthews			Phoned no reply
Yarrawalk /Tocomwall	Barry French	Yes		
Muswellbrook Cultural Consult	Brian Horton	Yes		
Cacatua Cultural Consultants	George Sampson		Yes	
Wonnarua Cultural Heritage	Gordon and Shannon Griffiths	Yes		
Hunter Valley Aboriginal Corp	Nerida Saunders			Phone unanswered
Ungooroo Aboriginal Corp	Trefour Sproule, Alan Paget			To email response
Mingga Cultural Consult.	Cliff Matthews	Yes		
Yinnar Cultural Services	Shane Wilkinson	See above		
Wannaruah LALC	Les Atkinson , Owen Davidson		Yes	
Wonnarua Nation AC	Maree Waugh	Yes		
Hunter Valley Cultural Consult	Christine Archbold		Yes	

The proposed method of using geofabric and fill to minimise impacts on artefacts and the PAD was not widely accepted in this instance as there was no guarantee that future subsidence crack repair works could be done without the need for salvage.

6.0 Recommendations

Based on the field assessment, the provisions of the AHIP and community preference it is recommended that:

- To mitigate against impact to Aboriginal objects a salvage excavation program should be conducted in the gas drainage borehole compound footprint to retrieve a representative sample of artefacts.

Should a salvage excavation be undertaken this information would also be subject to analysis in the context of the salvage of artefacts in the broader Bowmans Creek Terrace site.

- The compound should be located to avoid impact on the historic site. This site will require salvage prior to significant cracking or any remediation process as a result of subsidence.

7.0 Bibliography

- Besant, A & Wyatt, L 2009 Aboriginal Archaeological Assessment – Proposed Longwall 9. Report to Ashton Coal Operations
- Evans & Peck Pty Ltd 2009 Bowmans Creek Diversion Environmental Assessment. Report to Ashton Coal Operations.
- Maunsell Australia. 2008 Ashton Coal Underground Subsidence Management Plan Longwall and Miniwall Panels 5 to 9. Prepared for Ashton Coal Operations Limited, Maunsell Australia Pty Ltd, Maitland, NSW Australia.
- Mills, K 2010 in prep Subsidence Modelling ULD LW 1-4. Report by STC to Ashton Coal Operations.
- Mitchell, P Dr. 2002 Geomorphology of the Ashton Coal Project site in relation to archaeology. Camberwell, Hunter Valley NSW Report by Groundtruth Consulting to Witter. D
- Mitchell, P. Dr 2011 Review of the geomorphology and pedology of Aboriginal Site #37-3-0496 on Brunckers Lane for Ashton Coal Operations P/L
- Witter, D. 2002 Ashton Coal Mining Project Environmental Impact Assessment: Aboriginal Archaeology. Report to White Mining Ltd.

Appendix A

Additional consultation

Pages removed for confidentiality

Appendix B

Stakeholder recommendation choice forms

Pages removed for confidentiality

Appendix C

37-3-0496 Revised site card



Aboriginal Site Impact Recording Form

AHIMS Registrar
PO Box 1967, Hurstville 2220 NSW
December 2010 DECCW 2010/1022

- 1 This form must be completed following impacts to AHIMS sites that are:
 - a) an outcome of test excavation carried out in accordance with the *Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW*
 - b) authorised by an Aboriginal Heritage Impact Permit (AHIP)
 - c) undertaken for the purpose of complying with environmental assessment requirements issued by the Department of Planning under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), or
 - d) authorised by a Part 3A project approval under the EP&A Act.
- 2 Completed forms must be submitted to the AHIMS Registrar (www.environment.nsw.gov.au/contact/AHIMSRegistrar.htm).
- 3 This form is intended to complement (not replace) the AHIMS Site Recording Form. Where there is a need to provide detailed information about the nature of a site, use the AHIMS Site Recording Form.
- 4 This form does not replace the need to submit reports to DECCW (as specified by a condition of an AHIP or Part 3A approval). This form must be submitted in addition to any reports.

AHIMS site ID:

Site impact authorisation (select one)	Reference numbers, dates
<input type="checkbox"/> Archaeological Code (The impacts to this site were the result of test excavation carried out in accordance with the <i>Code of Practice for the Archaeological Investigation of Aboriginal Objects in NSW</i>)	Date DECCW was notified (under requirement 15c of the Code): <input type="text"/> DECCW Regional office notified: <input type="text"/>
<input checked="" type="checkbox"/> AHIP (The impacts to this site were authorised by an AHIP.)	AHIP number: <input type="text" value="issued land & environn"/> Date issued/signed: <input type="text" value="26th August 2011"/> AHIMS permit ID/number: <input type="text"/>
<input type="checkbox"/> Part 3A application (The impacts to this site were undertaken for the purposes of complying with Part 3A environmental assessment requirements issued by the Department of Planning.)	Major project number: <input type="text"/> Date environmental assessment requirements issued: <input type="text"/>
<input type="checkbox"/> Part 3A approved project (The impacts to this site were authorised by a project approval under Part 3A of the EP&A Act.)	or Date of project approval: <input type="text"/>

Site status following impacts:

- Not a site (The investigations concluded that this is not a site.)
 Valid site (The investigations confirmed that this is an Aboriginal site.)
 Partially destroyed (The site was partially destroyed following authorised impacts; a portion of the site remains in situ.)
 Destroyed (The site was completely destroyed following authorised impacts.)

Geographic location

Site name:
 Easting: Northing: Coordinates must be in GDA (MGA)
 Map sheet:
 Zone: Location method:

1

Primary recorder

(The person responsible for the completion and submission of this form)

Title	Surname	First name
<input type="text"/>	Besant	Angela
Organisation:	Insite Heritage	
Address:	PO Box 98 Wangi Wangi NSW 2267	
Phone:	249755818	E-mail: admin@insiteheritage.com.au
Date recorded:	16/11/2011	Fax: 249755818

Site information

Open/closed site:

Features:

<input type="checkbox"/>	1. Aboriginal ceremony and dreaming	<input type="checkbox"/>	11. Habitation structure
<input type="checkbox"/>	2. Aboriginal resource and gathering	<input type="checkbox"/>	12. Hearth
<input type="checkbox"/>	3. Art	<input type="checkbox"/>	13. Non-human bone and organic material
<input checked="" type="checkbox"/>	4. Artefact	<input type="checkbox"/>	14. Ochre quarry
<input type="checkbox"/>	5. Burial	<input checked="" type="checkbox"/>	15. Potential archaeological deposit
<input type="checkbox"/>	6. Ceremonial ring	<input type="checkbox"/>	16. Stone quarry
<input type="checkbox"/>	7. Conflict	<input type="checkbox"/>	17. Shell
<input type="checkbox"/>	8. Earth mound	<input type="checkbox"/>	18. Stone arrangement
<input type="checkbox"/>	9. Fish trap	<input type="checkbox"/>	19. Modified tree
<input type="checkbox"/>	10. Grinding groove	<input type="checkbox"/>	20. Water hole

Site condition

Written description of the condition of the AHIMS site (including relevant features) following the authorised impact of the site

The PAD has been redefined on the basis of testing and salvage works. Areas of artefacts remain in-situ particularly along the eastern margin on the nth end and sth end of the Bowmans Creek Terrace Site, for which a new site card has been submitted. The area of potential Pleistocene PAD associated with this site has been refined to a small area of remnant terrace which has been found to contain an eroded Pleistocene terrace with a mantle of colluvium containing Holocene artefacts including microliths. There is no potential for Pleistocene occupation levels in this area.

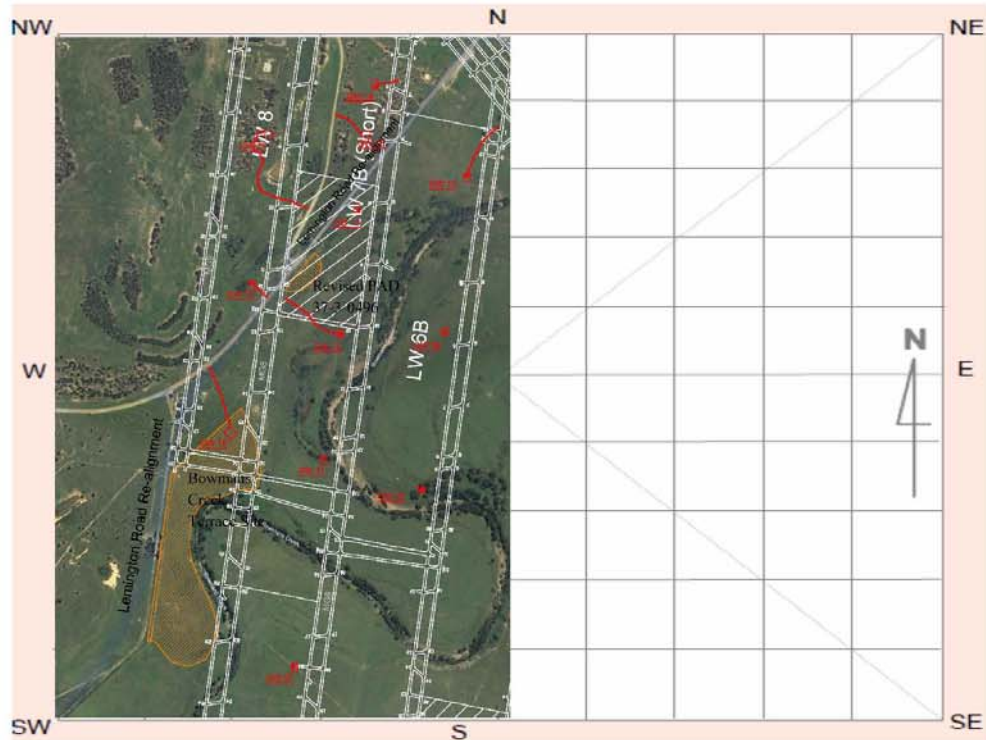
The southern area of the broader PAD associated with the site has been redefined as a separate Holocene terrace that has artefacts within the topsoil in varying density over the entire area. Densities do tend to be higher in closer proximity to the creek.

Artefacts have been salvaged from the footprint of the approved activities in this landform unit. This includes the access route, the carpark and crib room, the access to the haul road, the haul road and the western creek diversion.

Areas of the eastern terrace creek margin have been nominated for future protection.

Site map

Clearly demarcate the original AHIMS site boundary, show the boundaries of impacted areas and the areas where the site remains in situ. Display map coordinates.



Methodology and results

Summary of the methodology and results of the activity or works undertaken through the authorised impacts, as relevant to the AHIMS site

In accordance with the AHIP test probes were excavated at spacings of no more than 15m on transects within the area of impact. Where higher densities of artefacts were located the probes were expanded into open area salvage. One open area was excavated on the haul road, and two on the western diversion of the creek.

Grader scrapes were then conducted and lenses of material were excavated in several locations.

The haul road was adjusted to the north / north west at the northern end to avoid a probable micro blade workshop. The areas cleared are the access route, the haul road, the crib shed and carpark, the western diversion, the margins of LW's 7-8.

3

Management recommendations

Summary of any management recommendations for the AHIMS site

The area of PAD was redefined on the basis of the work. It is reduced to a small area attached to 37-3-0496 that comprises an eroded Pleistocene terrace with a mantle of colluvium bearing Holocene age artefacts including microliths.

two areas of the southern area of PAD now known at the Bowmans Creek Terrace site have been nominated for avoidance in future surface activities. The remainder should be subject to consultation before disturbance takes place.

Post-investigation significance

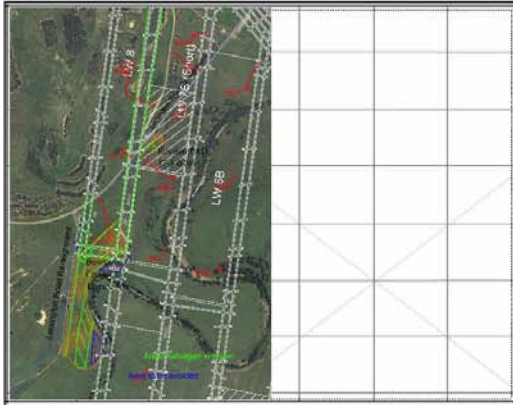
Discuss if the scientific/archaeological or cultural significance of the site has changed in light of the results of the investigations or works conducted at the site.

the potential Pleistocene PAD label has been lifted and the area shown to have negligible potential for Pleistocene occupation levels.

Additional comments

Site photographs

Include photographs of the authorised impacts activity, as relevant to the AHIMS site. Please keep photo size to a maximum of 200 kb.



Description: areas salvaged



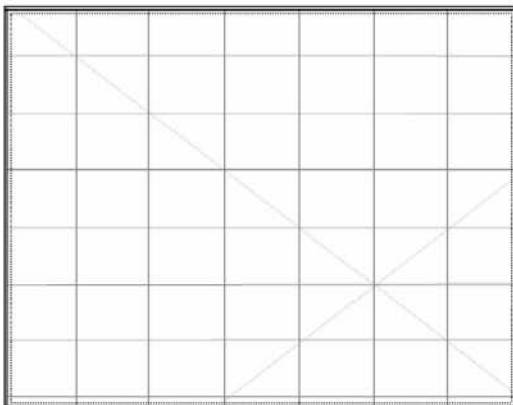
Description: grader scrape of the carpark crib shed loca



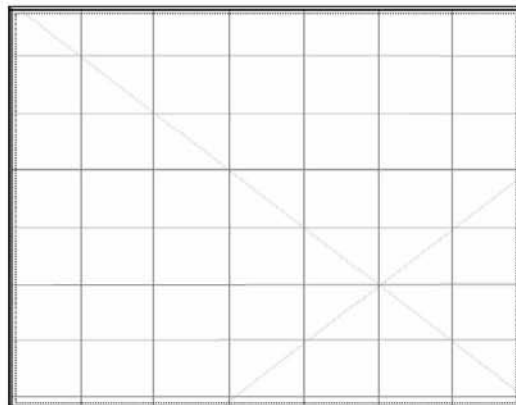
Description: test probe haul road



Description: test probe haul road sth



Description:



Description:

Appendix D

Bowmans Creek Terrace Site Card



Aboriginal Site Recording Form



AHIMS Registrar
PO Box 1967, Hurstville NSW 2220

Office Use Only

Site Number

Date received / / Date entered into system / / Date catalogued / /

Entered by (I.D.)

Information Access

Gender/male Gender/female Location restriction General restriction No access

For Further Information Contact:

Nominated Trustee

Title Surname First Name Initials

Organisation

Address

Phone number Fax

Knowledge Holder

Title Surname First Name Initials

s t a k e h o l d e r n a m e s l i s t e d

Organisation i n c o m m e n t s .

Address

Phone number Fax

Aboriginal Heritage Unit or Cultural Heritage Division Contacts

R o g e r M e h r

Geographic Location

Site Name B o w m a n s C r e e k T e r r a c e S i t e

Easting Northing AGD/GDA

Mapsheet c a m b e r w e l l

Zone Location Method

Other Registration

Primary Recorder

Title Surname First Name Initials

B e s a n t A n g e l a

Organisation I n s i t e H e r i t a g e

Address P O B o x 9 8 W a n g i w a n g i

Phone number Fax

Date recorded

Office Use Only

Client on system

Client on system

Client on system

General Site Information

Closed Site

Shelter/Cave Formation

- Boulder
- Wind erosion
- Water erosion
- Rock collapse

Condition of Ceiling

- Boulder
- Sandstone platform
- Silica gloss
- Tessellated
- Weathered
- Other platform

Rock Surface Condition

- Boulder
- Sandstone platform
- Silica gloss
- Tessellated
- Weathered
- Other platform

Shelter Aspect

- North
- North East
- East
- South East
- South
- South West
- West
- North West

Open Site

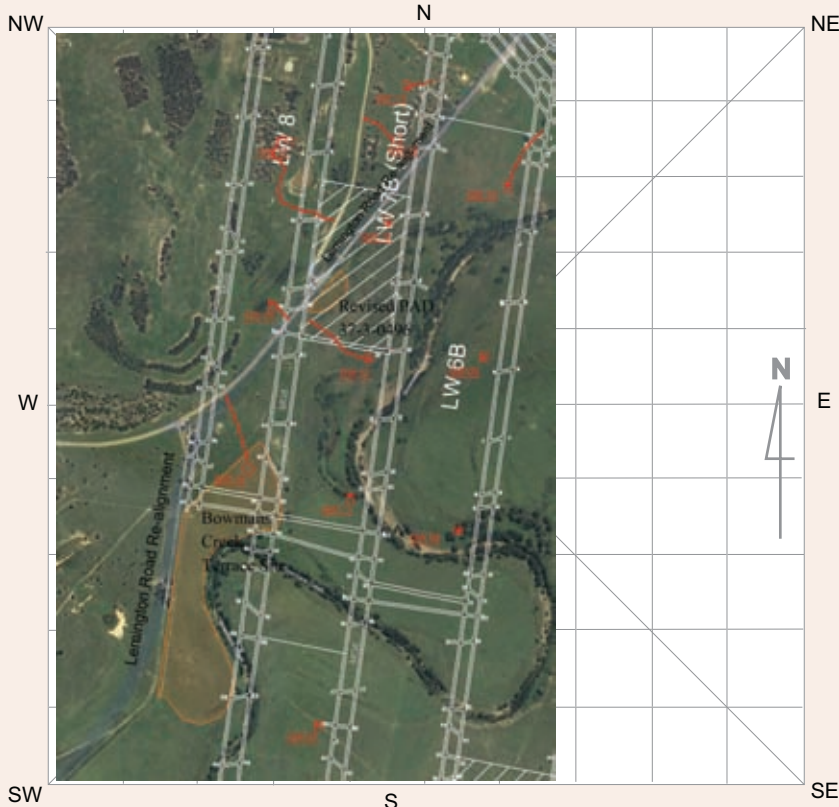
Site Orientation

- N-S
- NE-SW
- E-W
- SE-NW
- N/A

Features

- 1. Aboriginal Ceremony & Dreaming
- 2. Aboriginal Resource & Gathering
- 3. Art
- 4. Artefact
- 5. Burial
- 6. Ceremonial Ring
- 7. Conflict
- 8. Earth Mound
- 9. Fish Trap
- 10. Grinding Groove
- 11. Habitation Structure
- 12. Hearth
- 13. Non Human Bone & Organic Material
- 14. Ochre quarry
- 15. Potential Archaeological Deposit
- 16. Stone Quarry
- 17. Shell
- 18. Stone Arrangement
- 19. Modified Tree
- 20. Water Hole

Site Plan Indicate scale, boundaries of site, features



Site Dimensions

Closed Site Dimensions (m)

- Internal length
- Internal width
- Shelter height
- Shelter floor area

Open Site Dimensions (m)

- Total length of visible site
- Average width of visible site
- Estimated area of visible site
- Length of assessed site area

Aboriginal Community Interpretation and Management Recommendations

The Bowmans Creek Terrace site was recorded as PAD associated with site 37-3-0496. The area has been subject to salvage under an AHIP. The site has been salvaged in the area of works approved for Ashton Coal. Two areas of higher density artefacts were located east of the haul road and east of the diversion. These areas will be avoided in future activities.

The site recording has included areas that have been cleared of artefacts under the AHIP. These areas include the existing access track, crib room and car park, the haul road and the western diversion of Bowmans Creek.

The site is located on a Holocene terrace of Bowmans Creek, the terrace to the south is recent in origin and to the north a small area of Pleistocene terrace (eroded) with an overlay of more recent colluvium contains Holocene artefacts (37-3-0496). Artefacts remain on the terrace in areas not been cleared for the current works.

Preliminary Site Assessment

Site Cultural & Scientific Analysis and Preliminary Management Recommendations

The excavation and grader scrapes of approximately 3.3 ha of the site has resulted in a large artefact assemblage, that will be subject to a full analysis. The analysis will be carried out in the context of survey results and salvage works in the broader Ashton underground workings.

Artefacts were located in varying densities across the area of the terrace.

This section should only be filled in by the Endorsees

Endorsed by: Knowledge Holder Nominated Trustee Native Title Holder Community Consensus

Title	Surname	First Name	Initials
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Organisation	<input type="text"/>		
Address	<input type="text"/>		
Phone number	<input type="text"/>	Fax	<input type="text"/>

Attachments (No.)

- A4 location map
- B/W photographs
- Colour photographs
- Slides
- Aerial photographs
- Site plans, drawings
- Recording tables
- Other
- Feature inserts-No.

Comments

The following stakeholders were actively involved in the redefinition of the site boundaries. GWCHC Annie Hickey; UHWC Georgina Berry; Kayaway, Katrina Cavanagh; Wattaka Paulette Ryan; Wonn1Consulting, Arthur Fletcher; Yinnar, Shane Wilkinson; Carranwonga, Justin Mathews; HVCS Luke Hickey; UHHC, Daryl Mathews; Yarrawalk, Barry French; Mingga CC Brian Horton; Cacatua, George Sampson Wonnarua Cultural Heritage, Shannon Griffiths; Gidawaa Annie Hickey; HVAC Nerida Saunders; Ungaroo AC Trefor Sproule and Alan Paget; Mingga, Tony Matthews; Yinnar, Shane Wilkinson; WLALC, Les Atkinson and Suzie Worth, and Wonnarua Nation AC Maree Waugh

ATTACHMENT 4

