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1. Introduction

Hunter Valley Energy Coal Pty Ltd operates the Mt Arthur Coal Complex which consists of open cut and underground mining operations, a rail loop and associated rail loading facilities. The operations are located in the Upper Hunter Valley, NSW approximately five kilometres south west of Muswellbrook.

This European Heritage Management Plan (EHMP) has been prepared to fulfil the conditions and commitments of NSW Department of Planning (DoP) project approval 09_0062 dated 24 September 2010, and project approval 06_0091 dated 2 December 2008, which are presented in Appendix 1.

1.1 Background

Mt Arthur Coal has previously implemented an Archaeology and Cultural Heritage Management Plan for managing heritage as part of mining at Mt Arthur North. This past experience has been used to formulate this new EHMP for managing historic heritage on site and areas surrounding the operation in accordance with the Project Approvals.

1.2 Objectives

The primary objective of this EHMP is to provide a framework to coordinate and manage the European heritage items affected or potentially affected by the operation.

The objectives of this management plan are:

- To comply with the conditions associated with historic heritage management as outlined in the Project Approvals;
- Develop programs and procedures for managing historic heritage items affected or potentially affected by the operation, and identify, where required, individual conservation management plans and relocation plans as required;
- To mitigate the impacts of mine operations on European heritage; and
- To comply with the requirements of the Heritage Act 1977.

1.3 Environmental Management System

Mt Arthur Coal has a firm commitment to minimising the impact of its operations on the local environment and community, and has a comprehensive Environmental Management System (EMS) in place to fulfil this commitment. This EHMP is a component of the Mt Arthur Coal EMS.

1.4 Consultation Process

This EHMP has been prepared in consultation with the Heritage Branch of NSW Department of Planning, local historical organizations, relevant landowners, Muswellbrook Shire Council (MSC) and DoP.

1.5 Background Data Heritage Assessment

Comprehensive European heritage assessments of the area affected by coal mining and associated facilities and infrastructure have been conducted during the environmental assessment phases of the projects. The most recent European heritage assessment is found in Appendix L '*Non-Aboriginal Cultural Heritage Impact Assessment*', with further information provided in Appendix H '*Blast Vibration Vulnerability Assessment*', of the *Mt Arthur Coal Consolidation Project Environmental Assessment* (Hansen Bailey 2009).

Previous European heritage assessments include Appendix I (Carter 2000) of the *Mount Arthur North Coal Project Environmental Impact Statement*, Appendix 8 Umwelt (2008), of the *Mt Arthur Underground Project Environmental Assessment*, and specific assessments for the development of Conservation Management Plans (CMP) for Edinglassie, Rous Lench, Balmoral Homesteads, Belmont Homestead and Edderton Homestead Complex.

Table 1 summarises all heritage items recorded within or in close proximity to the Mt Arthur Coal Complex, the figure in appendix 2 illustrates the locations of the heritage items in relation to the Mt Arthur Coal Complex.

Table 1: Summary of historic heritage items impacted by the Mt Arthur Operation and management actions

Item Name	Location	Within EA Boundary	Significance	Impact	Management Action
Edinglassie Homestead	Denman Road	X	State	Possible impact from blasting	Blast design restriction which allows maximum ground vibration level of 10mm/s and overpressure level of 133dBL. Complete structural surveys periodically to assess structural condition and determine mitigation measures, as required. Refer to Section 3.3.3.
Balmoral Homestead	Denman Road	X	Local – high	Possible impact from blasting	Blast design restriction ground vibration level of 5mm/s and overpressure level of 115dBL (allowable exceedance 5% of the total number of blasts over a period of 12 months), ground vibration level of 10mm/s and overpressure level of 120dBL (0% allowable exceedance). Complete structural property inspection upon request from the landowner to assess structural condition and determine mitigation measures, as required. Refer to Section 3.3.3.
Rous Lench Homestead	Denman Road	X	State	Possible impact from blasting	Blast design restriction which allows maximum ground vibration level of 10mm/s and overpressure level of 133dBL. Complete structural surveys periodically to assess structural condition and determine mitigation measures, as required. Refer to Section 3.3.3.
Edderton Homestead Complex	1477 Edderton Road Portion 6 Parish of Wynn	✓	Local - moderate	Potential impact by underground project on some of the complex (No impact on Edderton Homestead).	Draft CMP to be finalised to provide ongoing management, prior to mining.
Edderton Catena	Within Mt Arthur Coal Complex*	✓	Local - low	Potential impact by	1. Full archival recording

Item Name	Location	Within EA Boundary	Significance	Impact	Management Action
Heritage Site	(Portion 54 Parish Wynn)			underground project.	2. Structural condition inspection by qualified engineer prior to mining. 3. Following undermining, structural condition inspection and recommended remedial works by qualified engineer. 4. If site is found structurally sound it will be left <i>in situ</i> , if found unsafe the site may be demolished.
Mills Cottage	Edderton Road	✓	Local - low	Potential impact by underground project.	1. Full archival recording 2. Structural condition inspection by qualified engineer prior to mining. 3. Following undermining, structural condition inspection and recommended remedial works by qualified engineer. 4. If site is found structurally sound it will be left <i>in situ</i> , if found unsafe the site may be demolished.
'Ruins' Site	Edderton Road	✓	Local - low	Potential impact by underground project.	Located within the corridors of the realigned Edderton Road – there is flexibility in road design to avoid impacts on heritage items. Further assessment may be undertaken when detailed road design is undertaken if necessary. Site recorded and will be fenced off to minimise impacts from the project.
Hospital Building	Edderton Road	✓	Local - high	Impacted by project, to be relocated prior to open cut mining.	Management Plan to be developed, identifying an appropriate alternative location, provide ongoing management and include a full archival recording, prior to open cut mining.

Item Name	Location	Within EA Boundary	Significance	Impact	Management Action
Belmont Homestead Complex	721 Edderton Road	✓	Local - moderate	Site to be impacted by underground project.	Site will be impacted by the project. The site is approved to be demolished, subject to mitigation measures as outlined in section 3.3. Archival recording is required prior to any disturbance.
Beer Homestead – slab hut	721 Edderton Road	✓	Local - moderate	Impacted by Project, to be relocated as part of the project.	CMP to be developed. Site to be relocated to prevent destruction by the project. Refer to Section 3.2.
Farm and Farmhouse	550 Edderton Road	✓	Local - low	Potential impact by underground project.	<p>Located within the corridors of the realigned Edderton Road – there is flexibility in road design to avoid impacts on heritage items. Further assessment may be undertaken when detailed road design is undertaken if necessary.</p> <p>Site recorded and will be fenced off to minimise impacts from the project.</p>
Fence and yard Site	Off Denman Road	✓	Local - low	No impact from Projects	<p>Located within the corridors of the realigned Edderton Road – there is flexibility in road design to avoid impacts on heritage items.</p> <p>Site recorded and will be fenced off to minimise impacts from the project.</p>
Windmill, tank stand and trough	North of Mount Arthur	✓	Local - low	Impact avoided	<p>Located within the corridors of the realigned Edderton Road – there is flexibility in road design to avoid impacts on heritage items.</p> <p>Site recorded. No project impact and as such, no management required.</p>

* refer to Appendix 2

2. Impact Assessment

Assessments of non-Aboriginal heritage were undertaken by Archaeology Australia (2009) and Umwelt (2007) to determine the potential impacts of the open cut and underground mining projects on heritage items identified within the Mt Arthur Coal Complex Environmental Assessment (EA) boundary. The assessments were undertaken in accordance with the *NSW Heritage Office guidelines for heritage impact studies* (NSW Heritage Office, 2001).

An additional assessment of blasting on Edinglassie Homestead and Rous Lench was also undertaken as part of the EA process; refer to Appendix H 'Blast Vibration Vulnerability Assessment' (Hansen Bailey 2009), of the *Mt Arthur Coal Consolidation Project Environmental Assessment*.

Assessment results illustrate that eleven heritage sites were identified as having a potential to be impacted by the projects.

Specific impacts on historic heritage items are summarised in Table 1, as set out in Section 8.8 Non Aboriginal Heritage of the EA (Hansen Bailey 2009), and Section 5.4.2 Historic Heritage of Underground EA (Umwelt 2007). These impacts were considered in the EA for Mt Arthur Coal and will be mitigated using the strategies described in Section 3.0.

3. Mitigation Measures

There are a number of mitigation measures that will be implemented to manage the impacts of the project on heritage items listed in Section 3, they include:

1. Avoidance of heritage items;
2. Implementation of procedures to minimise impacts on heritage items;
3. Archival recordings and relocation of heritage items;
4. Archival recording and demolition of heritage items.

Table 1 summarises the management actions identified for Non Aboriginal Heritage Sites in the EA.

In addition to the mitigation measures or management actions, summarised in Table 1, the following specific management measures will be implemented in accordance with Schedule 3, Condition 45, clause (c) of PA 09_0062, and Schedule 3, Condition 12 of PA 06_0091, as discussed below in Sections 3.1 to 3.3.

3.1 Conservation Management Plans

The current draft Conservation Management Plan (CMP) for Edinglassie Homestead and Rous Lench will be reviewed, amended and implemented in accordance with Schedule 3 Condition 45, sub clause (c) of the Project Approval 09_0062 and the NSW Heritage Office guidelines on Conservation Management Plans.

In addition to the implementation of the CMP, Mt Arthur Coal will continue to implement the following lease arrangements on the lessee to undertake the following:

- maintain the properties, including the buildings and grounds, in appropriate condition, consistent with the requirements of the NSW Heritage Council;
- report any damage to the buildings or grounds immediately to Mt Arthur Coal;
- seek written approval from Mt Arthur Coal prior to repairing any damage, except in emergency situations. Any major work on a state listed building requires approval from the Heritage Office;
- not use the buildings or grounds in a manner likely to cause deterioration or damage to the buildings or grounds;
- allow Mt Arthur Coal to inspect the buildings or grounds at any time with 24 hours notice.

For additional monitoring and management measures for the Edinglassie Homestead and Rous Lench, please refer to Section 3.3.3 Monitoring, notifying and managing the effects of blasting on potentially affected heritage items, of this EHMP. Appendix 4 contains a summary of management actions from the Conservation Management Plans.

The current draft CMPs for the Belmont Homestead Complex, including the slab hut, and Edderton Homestead Complex will be finalised prior to mining impacts on these sites, in accordance with Schedule 2 Condition 12 of PA 06_0091, to guide ongoing management.

3.2 Relocation Plans

All heritage structures will be preserved in situ where possible in order to maintain their historic context. If modelling indicates that mining operations will have a significant impact on the structures listed below, they will be removed as detailed in the following sections. Prior to the relocation of a heritage structure, a relocation plan will be submitted to Department of Planning & Infrastructure. The Department, in consultation with the Heritage Branch, will approve the relocation plan before a heritage structure can be relocated.

3.2.1 Beer Homestead Relocation Plan

The Beer Homestead will remain in its current location for as long as possible before predicted mining impacts necessitate its removal.

Upon planned impact to the Beer Homestead, a detailed plan for the relocation of the Homestead will be developed in accordance with Schedule 3, Condition 45, clause (c), subclause 2 of Project Approval 09_0062, and NSW Heritage Office guidelines on archival recording (refer to Section 3.3.1).

The detailed plan will be prepared by appropriately qualified consultants and will include the development of a landscape study to determine the most appropriate location; an archival recording of the structure prior to relocation; and the preparation of an architectural report to determine the most sympathetic method for the relocation of the Beer Homestead. The detailed plan and relocation will occur prior to significant impacts from Mt Arthur Coal operations.

3.2.2 Hospital Building Relocation

In accordance with Schedule 2, Condition 12, sub-clause (c) of Project Approval 06_00911 a relocation plan for the Hospital Building will be developed and implemented prior to any impact on this building. .

3.3 Programs/Procedures

In accordance with Schedule 3, Condition 45, clause (c), sub clause 3 of the PA 09_0062, and Schedule 3, Condition 12 of PA 06_0091, programs and procedures relating to additional photographic and archival recording, protection and monitoring, notifying and managing blasting, and additional archaeological excavation will be developed and implemented, as outlined in Sections 3.3.1 to 3.3.4.

3.3.1 Photographic and archival recording of potentially affected heritage items

Heritage items which have the potential to be affected by the Mt Arthur Coal mine will be recorded in accordance with the following NSW Heritage Office guidelines:

- NSW Heritage Office (1998) Heritage Information Series - How to Prepare Archival Records Of Heritage Items, Third Edition;
- NSW Heritage Office (2006) Heritage Information Series - Photographic Recording of Heritage Items Using Film or Digital Capture; and
- NSW Heritage Office (2004) Guidelines for Photographic Recording of Heritage Items.

Appropriately qualified consultants will be contracted to undertake the photographic records and prepare the reports for archiving in accordance with relevant government authorities, based on the heritage significance of the items.

3.3.2 Protection and monitoring of heritage items outside of disturbance area

Subject to the approval of owners, privately owned heritage items located outside the Mt Arthur Coal disturbance area or EA boundary will be assessed according to the structural property inspection procedure outlined in Section 6.4 of the *MAC-ENC-MTP-015 Blast Management Plan* and in accordance with Schedule 3 Condition 13 - 14 of the Project Approval, to establish the baseline condition of the heritage item, including buildings and/or other structures on the property.

Monitoring of heritage items will be undertaken in accordance with property investigation procedures set out in Section 6.4 of the *MAC-ENC-MTP-015 Blast Management Plan*, and in accordance with Schedule 3 Condition 15 of the Project Approval where any landholder within 3 kilometres of blasting operations or any other landholder (or in this case owner of heritage

items) nominated by the Director-General, claims that buildings and/or structures on their land may have been damaged as a result of blasting at the project.

Blasts at Mt Arthur Coal will be designed to minimise impacts on heritage items as outlined in *MAC-ENC-MTP-015 Blast Management Plan*.

3.3.3 Monitoring, notifying and managing the effects of blasting on potentially affected heritage items

In accordance with *MAC-ENC-MTP-015 Blast Management Plan* and *MAC-ENC-PRO-055 Blast Monitoring Program*, heritage items potentially affected by blasting as identified in the EA will be monitored for ground vibration and overpressure. Heritage item owners will be notified of blasting schedules and the effects of blasting will be managed through blast design.

The EA identified three heritage items that could potentially be impacted by blasting undertaken at Mt Arthur Coal, they include:

- The Edinglassie Homestead;
- Rous Lench; and
- The Balmoral Homestead.

Mt Arthur Coal owns Edinglassie and Rous Lench properties. The following procedures and programs have been developed to monitor, assess and manage the properties:

- operation of blast monitoring equipment at Edinglassie Homestead to measure vibration and overpressure from all Mt Arthur Coal blasts, in accordance with *MAC-ENC-PRO-055 Blast Monitoring Program*, the Project Approval and Environmental Protection Licence 11457;
- design all blasts at Mt Arthur Coal to maintain ground vibration levels at or below 10mm/s and overpressure levels at or below 133dBL at Edinglassie homestead (details in *MAC-ENC-MTP-015 Blast Management Plan*);
- conduct pre-blasting structural inspections of both homesteads, and renew these inspections on a regular basis, and if any exceedances of blasting limits occur;
- conduct annual pest inspections of both properties;
- carry out actions recommended in the pest inspections;
- conduct building inspections every 2 years to monitor the structural integrity of both homesteads and surrounding buildings;
- carry out all necessary structural repairs, consistent with the requirements of the NSW Heritage Council, to maintain the structural integrity of both buildings, as recommended in the building inspection reports; and
- report all monitoring results and actions carried out in the AEMR.

In respect of the Balmoral homestead, which is not owned by Mt Arthur Coal, the following procedures and programs to monitor, assess and manage blasting impacts will include the following:

- design all blasts at Mt Arthur Coal to maintain vibration levels at or below 10mm/s and overpressure level of at or below 133dB_L at Edinglassie homestead (details in *MAC-ENC-MTP-015 Blast Management Plan*). According to Hansen Bailey (2009) “Wilkinson Murray (2009) concluded that all relevant criteria (including the criteria assessed in Bill Jordan and Associates (2009)) could be met by implementing management techniques in the most sensitive area as required”. Due to the substantially closer proximity of Edinglassie homestead to mining compared to Balmoral homestead, compliance at Edinglassie will provide suitable protection for Balmoral. Additionally, blast impact assessment criteria for privately owned residences apply to Balmoral, including an overpressure limit of 120 dB_L (no more than 5% of blasts above 115 dB_L) and a vibration limit of 10 mm/s (no more than 5% of blasts above 5 mm/s);
- conduct property inspections and investigations in accordance with the requirements of Schedule 3, conditions 13 - 14 of the Project Approval 09_0062; and
- carry out all necessary structural or other repairs, consistent with the requirements of the NSW Heritage Council, to maintain the structural integrity and historical character of the building, where the damage is shown to result from the effects of blasting at the Mt Arthur Coal mine.

3.3.4 Additional archaeological excavation and/or recording of any significant heritage items requiring demolition

In addition to all programs, procedures and Conservation Management Plans outlined in Section 3 of this EHMP, any significant heritage items listed in Table 1 that require demolition in accordance with the Project Approval will have additional archaeological excavation undertaken in compliance with NSW Heritage Office guidelines.

Significant heritage items that have been approved for demolition will be recorded in accordance with Section 3.3.1 Photographic and archival recording of potentially affected heritage items, of this EHMP.

3.4 Incident/Complaint Response

All complaints received in relation to this EHMP will be responded to in accordance with *MAC-ENC-PRO-042 Community and Environmental Incident Response and Reporting*. This procedure provides details on how to receive, handle, respond to, and record and action any community complaints.

Upon receipt of a complaint from the Community, preliminary investigations will commence as soon as practicable to determine the likely causes of the complaint using specific information associated with the complaint. A response will be provided as soon as practicable, which may include the provision of relevant monitoring data.

Every effort will be made to ensure that concerns are addressed in a manner that facilitates a mutually acceptable outcome for both the complainant and Mt Arthur Coal.

In the event of an incident or complaint resulting in a non-compliance with European heritage Project Approval conditions and this plan, the following protocol will be followed:

1. Check and validate the incident or data which indicates a non-compliance with criterion or conditions.
2. Notify the Heritage Branch of NSW Department of Planning in writing, as soon as practicable after awareness of the incident.
3. A preliminary investigation will be undertaken to establish the cause(s) and determine whether changes to the European heritage management system are required. This will involve the consideration of the incident in conjunction with:
 - a) activities being undertaken at the time;
 - b) baseline monitoring results;
 - c) on-going maintenance, general monitoring and blast results for the heritage item or property;
 - d) comparison of results with heritage items at nearby locations;
 - e) changes to the land use/activities being undertaken on and surrounding the property / heritage items;
 - f) the prevailing and preceding meteorological conditions (if incident relates to blasting results; and
 - g) climatic conditions.

A detailed preliminary investigation report would be compiled and submitted to the Heritage Branch of NSW DoP and DoP within 7 days of becoming aware of the incident.

4. If the preliminary investigation report recommends further detailed investigations these would be conducted in consultation with the Heritage Branch of NSW DoP and DoP.
5. Remedial/compensatory measures will be developed in consultation with the Heritage Branch of NSW DoP, DoP and other regulatory authorities and implemented in response to the outcomes of the investigations.
6. Confirmatory monitoring would be implemented to measure the effectiveness of remedial measures.

3.5 Incident/Complaints Register

Mt Arthur Coal will record all community complaints, incidents and non-compliance items into the site event management database. The database is maintained to include reporting, incident/event notification, close out action tracking, inspections, and audits results.

4. Plan Performance and Continual Improvement

4.1 Plan Performance

The performance of this EHMP will be managed and monitored in accordance with Section 5: Measurement and Evaluation of the *MAC-ENC-STD-008 EMS Framework Document*, which includes:

- System Monitoring and Maintenance
- Environmental and Social Monitoring
- Inspections
- Non-conformance and Corrective and Preventative Actions
- EMS Records and Information Management
- Audits

The performance of this EHMP will be reported annually in the Annual Environmental Management Report (AEMR), in accordance with the Project Approval.

4.2 Continual Improvement

Mt Arthur Coal strives to continually improve environmental and social performance by applying the principles of best practice to mining operations and community consultation. Improvements to the EHMP will be adopted and implemented, where they are identified as safe, cost-effective and practicable.

5. Reporting

Mt Arthur Coal will report on the performance of the EHMP in the Annual Environmental Management Report (AEMR), which will be posted on the company website, and provide regular updates to members of the Community Consultative Committee (CCC).

6. Review

This European Heritage Management Plan will be reviewed, and if necessary revised to the satisfaction of the Director-General (in consultation with relevant government agencies) in accordance with Condition 4 of Schedule 5 of the Project Approval:

- within 3 months of the submission of an:
 - annual review under Condition 3, Schedule 5 of the Project Approval;

- incident report under Condition 7, Schedule 5 of the Project Approval;
 - Independent Environmental Audit report under Condition 9, Schedule 5 of the Project Approval;
 - Modification to the conditions of the Project Approval.
- When there are changes to project approval or licence conditions relating to European heritage;
 - Following significant incidents at Mt Arthur Coal relating to European heritage;
 - Following the conduct of an independent environmental audit which requires changes to the European Heritage Management Plan; or
 - If there is a relevant change in technology or legislation.

7. References

7.1 External Documents

Bill Jordan and Associates (2009), Edinglassie Homestead & Rous Lench Blast Vibration Vulnerability – Assessment for Mt Arthur Coal.

Carter, C. (South East Archaeology) (2000), A European Heritage Investigation of the Proposed Mount Arthur North Coal Mine, Near Muswellbrook, Upper Hunter Valley, New South Wales. A Report to Dames and Moore. Appendix I in Dames and Moore 2000 Mount Arthur North Coal Project. Environmental Impact Statement. A Report to Coal Operations Australia Limited.

Dames and Moore (2000), Mount Arthur North Coal Project. Environmental Impact Statement. A Report to Coal Operations Australia Limited.

Department of Planning, Minister of Planning's Project Approval document (dated 24 September 2010), Application Number 09_0062, Mt Arthur Coal Mine – Open Cut Consolidation Project.

Hansen Bailey (2009), Mt Arthur Coal Consolidation Project Environmental Assessment. Prepared for Hunter Valley Energy Coal Pty Ltd.

NSW Heritage Office (1998), Heritage Information Series - How to Prepare Archival Records Of Heritage Items, Third Edition.

NSW Heritage Office (2006), Heritage Information Series - Photographic Recording of Heritage Items Using Film or Digital Capture.

NSW Heritage Office (2004), Guidelines for Photographic Recording of Heritage Items 2004.

NSW Heritage Office (2001), NSW Heritage Office guidelines for Heritage Impact Studies

Umwelt (2007) Historic Heritage Assessment Mt Arthur Underground Project, report to Mt Arthur Coal, Vol. 4, Appendix 8

Umwelt (2008), Mt Arthur Underground Project Environmental Assessment. Prepared for Mt Arthur Coal.

URS Australia Pty Limited (2000) The Mount Arthur North Coal Project, Environmental Impact Statement. Prepared for Coal Operations Australia Limited.

Wilkinson Murray Pty Limited (2009), Mt Arthur Coal – Consolidation Project, Noise and Blasting Impact Assessment.

8.2 Mt Arthur Coal Internal EMS Documents

MAC-ENC-MTP-015 Blast Management Plan

MAC-ENC-MTP-042 Aboriginal Heritage Management Plan

MAC-ENC-PRO-055 Blast Monitoring Program

MAC-ENC-PRO-008 Communication and Reporting

MAC-ENC-PRO-042 Community and Environmental Incident Response and Reporting

MAC-ENC-STD-008 EMS Framework Document

Appendix 1: Project Approval and EPL Requirements

Table 1: Project Approval and EPL Conditions associated with European Heritage

Consent/Licence	Schedule : Condition	Condition/Requirement	Management Plan Section															
Open Cut Consolidation Project Approval	3.10	Blast Impact Assessment Criteria																
		10. The Proponent shall ensure that blasts on site do not cause exceedances of the criteria in Table 8.																
		Table 8: Blasting impact assessment criteria																
		<table><tr><th>Location</th><th>Airblast overpressure (dB(Lin Peak))</th><th>Ground vibration (mm/s)</th><th>Allowable exceedence</th></tr><tr><td rowspan="2">Residence on privately owned land</td><td>120</td><td>10</td><td>0%</td></tr><tr><td>115</td><td>5</td><td>5% of the total number of blasts over a period of 12 months</td></tr><tr><td>Heritage sites, including Edinglassie and Rous Lench</td><td>133</td><td>10</td><td>0%</td></tr></table>	Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedence	Residence on privately owned land	120	10	0%	115	5	5% of the total number of blasts over a period of 12 months	Heritage sites, including Edinglassie and Rous Lench	133	10	0%	3.3.3
		Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedence													
		Residence on privately owned land	120	10	0%													
115	5		5% of the total number of blasts over a period of 12 months															
Heritage sites, including Edinglassie and Rous Lench	133	10	0%															
	3.3.2																	
	3.3.3																	
Open Cut Consolidation Project Approval	3:45	HERITAGE																
		Heritage Management Plan																
		45. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must: (a) be prepared in consultation with DECCW, the Aboriginal community, the Heritage Branch, Council, local historical organisations and relevant landowners, and be submitted to the Director-General for approval by the end of March 2011; (b) include the following for the management of Aboriginal heritage on site:	Refer to Aboriginal Heritage Management Plan (AHMP)															

Consent/Licence	Schedule : Condition	Condition/Requirement	Management Plan Section
		<ul style="list-style-type: none"> • a plan of management for the Thomas Mitchell Drive Offset Area; and • a program/procedures for: <ul style="list-style-type: none"> ○ salvage, excavation and/or management of Aboriginal sites and potential archaeological deposits within the project disturbance area; ○ protection and monitoring of Aboriginal sites outside the project disturbance area, including the 10 scarred trees and 3 axe grinding grooves identified on the site; ○ managing the discovery of any new Aboriginal objects or skeletal remains during the project; ○ maintaining and managing access to archaeological sites by the Aboriginal community; and ○ ongoing consultation and involvement of the Aboriginal communities in the conservation and management of Aboriginal cultural heritage on the site; and <p>(c) include the following for the management of other historic heritage on site:</p> <ul style="list-style-type: none"> • conservation management plans for the Edinglassie and Rous Lench homesteads; • a detailed plan for the relocation of the Beer Homestead, including provision for a landscape study to determine the most appropriate location and an architectural report to determine the most sympathetic method for relocation; and • a program/procedures for: <ul style="list-style-type: none"> ○ photographic and archival recording of potentially affected heritage items; ○ protection and monitoring of heritage items outside the project disturbance area; ○ monitoring, notifying and managing the effects of blasting on potentially affected heritage items; and ○ additional archaeological excavation and/or recording of any significant heritage items requiring demolition.” 	<div>3.1</div> <div>3.2.1</div> <div>3.3</div> <div>3.3.1</div> <div>3.3.2</div> <div>3.3.3</div> <div>3.3.4</div>

Consent/Licence	Schedule : Condition	Condition/Requirement	Management Plan Section
Open Cut Consolidation Project Approval	5:2	<p>Management Plan Requirements</p> <p>2. The Proponent shall ensure that the management plans required under this approval are prepared in accordance with any relevant guidelines, and include:</p> <p>(a) detailed baseline data;</p> <p>(b) a description of:</p> <ul style="list-style-type: none"> the relevant statutory requirements (including any relevant approval, licence or lease conditions); any relevant limits or performance measures/criteria; the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures; <p>(c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;</p> <p>(d) a program to monitor and report on the:</p> <ul style="list-style-type: none"> impacts and environmental performance of the project; effectiveness of any management measures (see c above); <p>(e) a contingency plan to manage any unpredicted impacts and their consequences;</p> <p>(f) a program to investigate and implement ways to improve the environmental performance of the project over time;</p> <p>(g) a protocol for managing and reporting any:</p> <ul style="list-style-type: none"> incidents; complaints; non-compliances with statutory requirements; and exceedances of the impact assessment criteria and/or performance criteria; and 	<p>1.5</p> <p>Table 1</p> <p>Appendix 2</p> <p>Appendix 1</p> <p>4.1</p> <p>4.2</p> <p>3.0</p> <p>4.0 & 5.0</p> <p>3.4</p> <p>4.2</p> <p>3.4</p> <p>3.5</p> <p>Refer to BMP</p> <p>3.4</p>

Consent/Licence	Schedule : Condition	Condition/Requirement	Management Plan Section
		(h) a protocol for periodic review of the plan.	6.0
Open Cut Consolidation Project Approval	5:3	<p>Annual Review</p> <p>3. By the end of 2010, and annually thereafter, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:</p> <ul style="list-style-type: none"> (a) describe the works that were carried out in the past year, and the works that are proposed to be carried out over the next year; (b) include a comprehensive review of the monitoring results and complaints records of the project over the past year, which includes a comparison of these results against the <ul style="list-style-type: none"> • the relevant statutory requirements, limits or performance measures/criteria; • the monitoring results of previous years; and • the relevant predictions in the EA; (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; (d) identify any trends in the monitoring data over the life of the project; (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and (f) describe what measures will be implemented over the next year to improve the environmental performance of the project. 	5.0

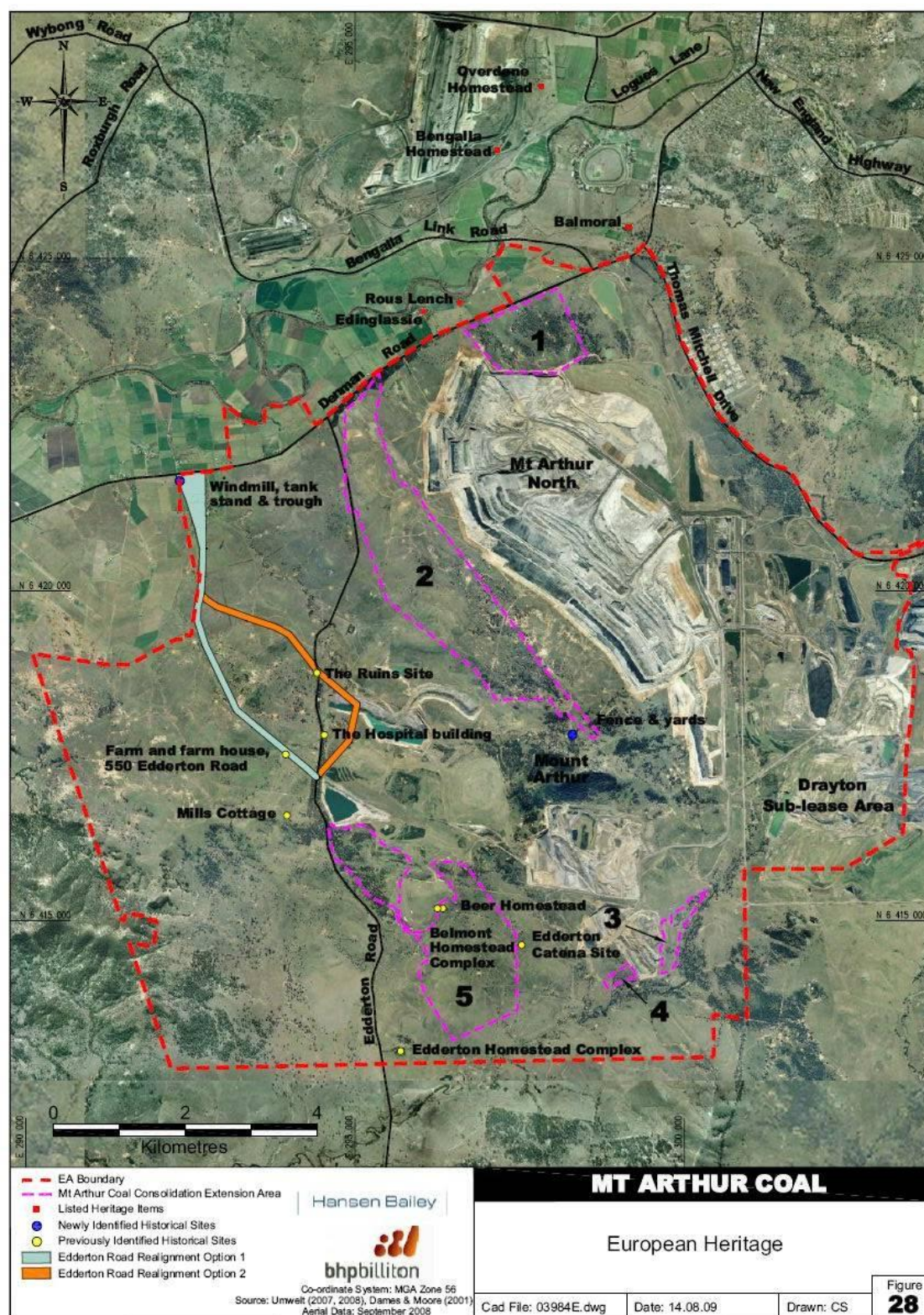
Consent/Licence	Schedule : Condition	Condition/Requirement	Management Plan Section
Open Cut Consolidation Project Approval	5:4	<p>Revision of Strategies, Plans and Programs</p> <p>4. Within 3 months of the submission of an:</p> <ul style="list-style-type: none"> (a) annual review under condition 3 above; (b) incident report under condition 7 below; (c) audit under condition 9 below; and (d) any modification to the conditions of this approval, the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General. <p><i>Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.</i></p>	6.0
Open Cut Consolidation Project Approval	5:7	<p>REPORTING</p> <p>Incident Reporting</p> <p>7. The Proponent shall notify the Director-General and any other relevant agencies of any incident associated with the project as soon as practicable after the Proponent becomes aware of the incident.</p> <p>Within 7 days of becoming aware of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.</p>	Refer to BMP 3.4 3.5
Open Cut Consolidation Project Approval	5:8	<p>Regular Reporting</p> <p>8. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or</p>	5.0

Consent/Licence	Schedule : Condition	Condition/Requirement	Management Plan Section
		programs approved under the conditions of this approval, and to the satisfaction of the Director-General.	
Open Cut Consolidation Project Approval	5:11	ACCESS TO INFORMATION 11. From the end of December 2010, the Proponent shall: (a) make the following information publicly available on its website: <ul style="list-style-type: none"> • a copy of all current statutory approvals for the project; • a copy of the current environmental management strategy and associated plans and programs; • a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval; • a complaints register, which is to be updated on a monthly basis; • a copy of the minutes of CCC meetings; • a copy of any Annual Reviews (over the last 5 years); • a copy of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit; • any other matter required by the Director-General; and (b) keep this information up to date, to the satisfaction of the Director-General.	Plan available on Mt Arthur Coal Website
Underground Project Approval	2:12	Non-Aboriginal Heritage 12. Notwithstanding condition 12 of schedule 2, the Non-Aboriginal Heritage Management Plan must: (a) be prepared in consultation with the Heritage Office, Council, and local historical organisations;	1.4

Consent/Licence	Schedule : Condition	Condition/Requirement	Management Plan Section
		(b) be submitted prior to carrying out any operations that could affect identified heritage items; (c) include: <ul style="list-style-type: none"> • conservation management plans for the Belmont Homestead and Edderton Homestead complexes; • details of the Hospital Building relocation; • a program/procedures for: <ul style="list-style-type: none"> ○ photographic and archival recording of potentially affected heritage items, based on additional heritage research; ○ baseline dilapidation surveys of all potentially affected heritage items; ○ monitoring and managing the effects of subsidence on potentially affected heritage items; and ○ additional archaeological excavation and/or recording of any significant heritage items requiring demolition. <p><i>Note: The Non-Aboriginal Heritage Management Plan may form part of the Archaeology and Cultural Heritage Management Plan, as referred to in the Mount Arthur North mine consent (DA 144-05-2000).</i></p>	3.1 3.2.2 3.3 3.3.1 3.3.2 3.3.3 3.3.4

Note: AHMP refer to MAC-ENC-MTP-042 Aboriginal Heritage Management Plan and BMP refer to MAC-ENC-MTP-015 Blast Management Plan

Appendix 2: Location of Heritage Items



Appendix 3: Government Correspondence and Consultation



**Planning &
Infrastructure**

Michael White
General Manager Operations
Mt Arthur Coal
PMB 8
MUSWELLBROOK NSW 2333

Contact: Ben Harrison
Phone: 02 6575 3402
Fax: 02 6575 3515
Email: benjamin.harrison@planning.nsw.gov.au
Our ref: 10/20755

Dear Mr White,

**Mt Arthur Coal Mine – PA 09_0062
Environmental Monitoring and Management Plans**

Thank you for forwarding the following management plans required under project approval 09_0062 for the Department's consideration:

- European Heritage Management Plan (Condition 45 of Schedule 3);
- Environmental Management Strategy (Condition 1 of Schedule 5);

The Department has reviewed these plans (as amended following previous correspondence) and is satisfied that they generally address the requirements set out in the relevant conditions of the project approval. Consequently, I would like to advise you that the Director-General has approved the plans.

Could you please forward finalised copies of the above plans for the Department's records at your earliest convenience.

Should you have any enquiries on this matter please contact Ben Harrison on (02) 6575 3402.



Scott Brooks
Team Leader Compliance

As Nominee for the Director-General

18-9-12

From: Perkins, Steven R (NSWEC)
Sent: Thursday, 31 March 2011 4:18 PM
To: 'Naomi Nelson'
Cc: 'david.kitto@planning.nsw.gov.au'; McNaughton, Julie (NSWEC)
Subject: European Heritage Management Plan
Attachments: MAC-ENC-MTP-018 European HMP 110331.doc

Good afternoon Naomi,

In accordance with Schedule 3, Condition 17 of Project Approval 09_0062, Mt Arthur Coal hereby submits the attached European Heritage Management Plan to Department of Planning for review and approval.

Regards,
Steve



Steven Perkins

Environmental Superintendant
Mt Arthur Coal
NSW Energy Coal

BHP Billiton

Thomas Mitchell Drive, Muswellbrook, 2333, NSW, Australia

Mail To Steven.R.Perkins@bhpbilliton.com

Internet <http://www.bhpbilliton.com>

Phone +61 2 6542 4874

Mobile +61 408 220 765

Please consider the environment before printing this email

From: Perkins, Steven R (NSWEC)
Sent: Thursday, 31 March 2011 4:16 PM
To: 'steve.clair@environment.nsw.gov.au'
Subject: European Heritage Management Plan
Attachments: MAC-ENC-MTP-018 European HMP 110331.doc

Good afternoon Steve,

Please find attached the Mt Arthur Coal European Heritage Management plan for your review.

Regards,
Steve



Steven Perkins

Environmental Superintendant
Mt Arthur Coal
NSW Energy Coal

BHP Billiton

Thomas Mitchell Drive, Muswellbrook, 2333, NSW, Australia

Mail To Steven.R.Perkins@bhpbilliton.com

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Mobile +61 408 220 765

Please consider the environment before printing this email

From: Perkins, Steven R (NSWEC)
Sent: Monday, 21 March 2011 12:57 PM
To: 'rtickle@bigpond.net.au'
Subject: FW: European Heritage Management Plan
Attachments: MAC-ENC-MTP-018 European HMP Final Draft 110318.doc

Good afternoon Rob,

As we discussed Saturday morning, Mt Arthur Coal is in the process of updating management plans at the site in accordance with the conditions of a recently received Project Approval (Application Number 09_0062). One of the plans that has been updated is the European Heritage Management Plan, which I have attached to this e-mail for your review. Thank you for your willingness to review the attached plan on behalf of the Muswellbrook Historical Society and to provide feedback by this Friday (March 25). I look forward to hearing back from you.

Regards,
Steve



Steven Perkins
Environmental Superintendant
Mt Arthur Coal
NSW Energy Coal

BHP Billiton
Thomas Mitchell Drive, Muswellbrook, 2333, NSW, Australia
Mail To Steven.R.Perkins@bhpbilliton.com
Internet <http://www.bhpbilliton.com>
Phone +61 2 6542 4874
Mobile +61 408 220 765
Please consider the environment before printing this email

From: Perkins, Steven R (NSWEC)
Sent: Friday, 18 March 2011 8:48 AM
To: 'siobhan.lavelle@planning.nsw.gov.au'
Subject: Mt Arthur Coal Heritage Management Plan
Attachments: MAC-ENC-MTP-018 European HMP Final Draft 110318.doc

Good morning Siobhan,

As we discussed, Mt Arthur Coal has recently developed a European Heritage Management Plan in accordance with Project Approval 09_0062. Please find attached a copy of the European Heritage Management Plan for your review. Thank you for your willingness to review the plan and to provide feedback by the end of next week (March 25).

Regards,
Steve



Steven Perkins
Environmental Superintendant
Mt Arthur Coal
NSW Energy Coal

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Please consider the environment before printing this email

Appendix 4: Management Actions from Conservation Plans

PURPOSE

This management program outlines the management measures that will be undertaken in order to maintain the Edinglassie property in a condition appropriate to its heritage significance, according to the details in the Edinglassie Conservation Management Plan, the Mt Arthur Coal Open Cut Consolidation Project Approval, and appropriate legislation.

OBJECTIVE

The objective of this program is to document the actions that are required to be taken in order to maintain the Edinglassie property, and outline the responsibilities of various personnel in relation to the maintenance of Edinglassie.

SCOPE

This management program applies to the Edinglassie complex, comprising the Edinglassie homestead, all associated outbuildings, and the Rous-Lench homestead.

ROLES AND RESPONSIBILITIES

Roles and responsibilities are outlined in the table below. Responsibilities for ensuring this management plan is delivered is shared between the Specialist Property, Mt Arthur Coal, and the licencees of the Edinglassie complex. This is outlined in the tables in section 6.

PROCEDURE

Action plans are detailed in the following tables. The tables document actions in the following manner:

Ongoing Actions	These actions are to be completed on an ongoing basis at least annually in order to ensure the ongoing maintenance and safety of the Edinglassie complex.
Short to medium term actions	Actions undertaken over the next 1-5 years to ensure the Edinglassie complex is maintained effectively and does not fall into disrepair
Medium to long term actions	Those actions that are envisaged to be required in the medium to long term (6-15 years) in order to maintain the Edinglassie complex in its current state.
Optimal Heritage Outcomes	Optimal heritage outcomes are not required to be undertaken. These actions are documented for consideration, and would add significant value if undertaken. If in the future, extensive works to Edinglassie were to occur, then these outcomes could be considered.

Table 2: Ongoing Actions – to be completed on an annual basis

Item	Action	Timing	Responsibility
Pest Control	Monitoring of existing permanent ground stations Termite and pest report on all buildings	Quarterly Annually	Specialist Property
Maintain vegetation, including mowing and weed control	Maintain lawns and gardens	As required.	Licensee
Inspections of all Inventory items	Inspect property and note condition at time of inspection. Complete any minor repairs and maintenance that may be required as a result of the inspection outcome.	Annually	Specialist Property
Onsite Sewage System	Inspect to ensure system is working adequately	Six monthly	Specialist Property
Fire Protection	Inspect to ensure smoke detectors are adequate and working, and change batteries in all alarms.	Six Monthly	Licensee
Catalogue Items	Review the catalogue of loose items, check they are still stored where listed in the catalogue, and assess whether they require maintenance. Maintain items and update catalogue listing as required.	Annually	Specialist Property
Annual Inspection	Engage a suitably qualified engineer to carry out annual structural inspection of Edinglassie homestead. Ensure that the roof integrity is assessed as part of this inspection.	Annually, or upon valid blasting exceedence at Edinglassie monitor	Specialist Property

Table 2: Ongoing Actions – to be completed on an annual basis

Item	Action	Timing	Responsibility
	<p><i>Note that this requirement may be reviewed as blasting activities move away from the homestead.</i></p> <p>Do annual general condition report including condition of all structures and assessment of general condition, painted surfaces, plumbing and drainage, flooring quality, internal fittings, cabinetry, etc., and implement action plan as appropriate.</p>		
Maintenance of buildings	Ensure gutters on all buildings are kept free and clear of debris	Monthly	Specialist Property/Licensee
Use of Property	Consider the occupation of appropriate dwellings to assist in long term conservation. This is preferably through residential use, however an adaptive re-use with minimal impact would also be appropriate, if other factors (such as mining impacts) allow.	Annually	Specialist Property / Environment and Community Manager

Table 3 – short to medium term actions (1-5 years)

Item	Action	Timing	Responsibility
Complex	Establish a catalogue of loose items, documenting condition, storage location and maintenance requirements..	June 2013	Specialist Property

Table 3 – short to medium term actions (1-5 years)

Item	Action	Timing	Responsibility
Homestead	Document and construct safe access to the cellar space.	June 2013	Specialist Property
	Repair water damage to ceiling in Bed 3 and Stair 2	December 2012	Specialist Property
	Repair loose balustrade to Stair 1	December 2012	Specialist Property
	In butler's pantry: repair and conserve timber floor; document and undertake completion of new ceiling; restore missing timber cupboard joinery, if found	June 2014	Specialist Property
Servants Quarters	Ensure yard taps are discharging into yard sinks, and that stormwater is being diverted away from the building	June 2013	Specialist Property
Meat Safe Creamery	Maintain paint finish, particularly to exterior. Investigation of paint type appropriate for subsequent coverage should be done prior to any work.	June 2014	Specialist Property
Water Tower	Inspect water tank (structural engineer), and action any recommendations for conservation	June 2013 As required / determined after inspection.	Specialist Property
	Reconstruct missing windows to existing detail.	June 2014	Specialist Property

Table 3 – short to medium term actions (1-5 years)

Item	Action	Timing	Responsibility
	Remove Cat Claw creeper vine from structure, and reassess structural integrity.	December 2012	Specialist Property
	Repair window sash to working order, and reglaze to match existing.	June 2013	Specialist Property
Tool Shed	Remove Cat Claw creeper vine from structure, and re-assess physical fabric	June 2013	Specialist Property
Carport	Remove creeper vine from structure.	June 2013	Specialist Property
	Repair loose areas of timber.	June 2013	Specialist Property
Dovecote	Remove creeper vine from structure.	June 2013	Specialist Property
	Repair loose areas of timber.	June 2013	Specialist Property
Hayshed & Silo	Reconstruct and repair weatherboards and other timber joinery where necessary.	Complete	Specialist Property
	Inspect and Restore and repair loose roofing materials where necessary, including roof sheeting, guttering and downpipes. Do not use PVC.	Annual	Specialist Property
Rous Lench	Commission a suitably qualified person to investigate rising damp throughout, and action those recommendations considered necessary to preserve the building.	June 2013	Specialist Property

Table 3 – short to medium term actions (1-5 years)

Item	Action	Timing	Responsibility
	Commission a suitably qualified person to assess masonry cracking, and action recommendations considered necessary to preserve the building..	June 2013	Specialist Property
	In conjunction with a heritage professional, consider removal of the concrete to the verandah.	June 2014	Specialist Property
Log Structure (Rous Lench)	Remove Cat Claw creeper from the structure, mindful not to let removal cause any damage or dislodgement of fabric. Seek advice on method of removal from a suitably qualified person.	June 2015	Specialist Property
	Clear interior of overgrowth and rubbish, mindful of the existence of significant moveable heritage items.	June 2015	Specialist Property
	Commission assessment by structural engineer, and action any recommendations.	June 2015	Specialist Property
Stable 4	Ensure water from yard taps is adequately drained away from the building.	June 2014	Specialist Property
	Timber in need of re-paint. Maintain existing or similar colour scheme.	June 2015	Specialist Property
Gardeners Cottage	Clear overgrowth to cottage and garage and re-inspect to assess management recommendations.	June 2015	Specialist Property

Table 3 – short to medium term actions (1-5 years)

Item	Action	Timing	Responsibility
	Make safe by way of fencing. (<i>Depending on management recommendations following assessment (see above), this fencing may be temporary or permanent. If permanent, fencing should be recommended by heritage architect</i>)	June 2015	Specialist Property

Table 4: medium to long term actions (6 to 15 years)

Item	Action	Timing	Responsibility
	Consider re-paving verandah to manage lifting pavers.	June 2018	Specialist Property
Butchery & Hanging Safe	Explore further the provenance of the rear northern section of the building.	June 2019	Specialist Property
Carport	Repaint all previously painted areas.	June 2020	Specialist Property
Dovecote	Repaint all previously painted areas.	June 2020	Specialist Property
Tractor Shed	Reconstruct weatherboards where necessary.	June 2020	Specialist Property
Stable 3	Repaint exterior, including repair of any deteriorating timber and rusting door frames	June 2020	Specialist Property
Rous Lench	Investigate options for less intrusive hot water delivery at this site.	June 2019	Specialist Property

Table 4: medium to long term actions (6 to 15 years)

Item	Action	Timing	Responsibility
Former School Masters Cottage	Undertake a detailed condition report, with conservation recommendations, i.e. opening of verandahs.	June 2018	Specialist Property