

# MAC-ENC-MTP-024

# DRAFT ROAD CLOSURE MANAGEMENT PLAN

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## 1. Introduction

Hunter Valley Energy Coal Pty Limited 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 Road Closure Management Plan (RCMP) has been prepared to fulfil the NSW Department of Planning and Infrastructure (DoPI) Project Approval (09\_0062) dated 24 September 2010, conditions, which are presented in Appendix 1.

In accordance with Condition 11 of Schedule 5 of the Project Approval, this RCMP will be made publically available on the Mt Arthur Coal website.

### 1.1. Background

Mt Arthur Coal has previously implemented Road Closure Management Procedures for blasting within 500 metres of Edderton Road as part of mining at Bayswater No3 mine, and for blasting within 500 metres of Denman Road as part of mining at Mount Arthur North. This past experience has been used to formulate this new RCMP for both Denman Road and Edderton Road.

### 1.2. Objectives

The primary objective of this RCMP is to provide a framework to coordinate safe and efficient road closures when blasting occurs within 500 metres of Denman Road or Edderton Road.

Fundamental to achieving this objective is to;

- Ensure safety and protection of potentially affected persons and property;
- Minimise road closure periods;
- Minimise potential impacts on road users, local residents and businesses;
- Notify in advance relevant stakeholders, including the public, of blasts that will temporarily close either Denman Road or Edderton Road; and
- Ensure that emergency service activities are not restricted by road closure events.

### 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 RCMP is a component of the Mt Arthur Coal EMS.

## 1.4. Consultation Process

This RCMP has been prepared in consultation with the NSW Roads and Traffic Authority (RTA), Muswellbrook Shire Council (MSC) and DoPI. Consultation has also been undertaken with neighbouring coal mines, including the Drayton and Bengalla Mines in relation to blast scheduling and associated road closure requirements, in order to minimise the potential cumulative impacts of the mines on the community and environment.

## 2. Impact Assessment

There are a number of potential impacts on local residents, road users and emergency services that may result from temporary closures of Denman Road and Edderton Road for blasting.

These potential impacts include;

- Disruption to road traffic flows between Muswellbrook and Denman;
- Longer local trip durations for through traffic;
- Impacts on local services, including school bus travel times;
- Impacts on emergency services activities; and
- Access restrictions for residents to local properties along particular sections of Denman Road and Edderton Road.

These impacts were considered in the Environmental Assessment (EA) for the Mt Arthur Coal Consolidation Project. Impacts will be mitigated using the strategies described in **Section 4.0**.

## 3. Mitigation Measures

There are a number of mitigation strategies that will be implemented to reduce the potential impacts identified in Section 2.0. The majority of these impacts are managed according to *MAC-PRD-PRO-043 Blasting Within 500M of Public Roads* and pursuant to a Traffic Control Plan for Denman Road that has been separately prepared, submitted and approved by the RTA. This approach was discussed and agreed in consultation with the RTA and MSC and is consistent with that taken by other mine-sites. Road closures on Denman Road will follow protocols identified in the Traffic Control Plan for Denman Road. A separate Traffic Control Plan will be developed for Edderton Road prior to any closures on Edderton Road.

### 3.1. Road Closure Protocol and Period

Road closures will occur prior to every blast within 500 metres of Denman Road or Edderton Road. Closures will occur just prior to the blast, and reopening will occur only after a thorough safety inspection has been completed. Closures will occur at strategic locations along Denman Road and Edderton Road that are highly visible to oncoming traffic and will seek to minimise potential impacts on road users accessing local properties and side roads (eg. Bengalla mine access road and Edderton Road). Closure locations will take into consideration the accumulated traffic volume so as where possible, normal traffic access to these side roads is not compromised. Specific locations of the closure points will be determined in consultation with the RTA during preparation of the Traffic Control Plan.

Road closures are likely to occur approximately three times per week for periods of several weeks at a time, with up to 120 road closures per year. Blasts requiring road closures will not be conducted when adverse environmental conditions (or other prevailing conditions) make road closures hazardous.

The duration of closure events will be minimised by delaying closures until just prior to blasts and by completing post-blast safety inspections immediately following blasts. Although Mt Arthur Coal will endeavour to minimise the duration of closures, public safety is the primary objective and will not be compromised by efforts to reduce closure duration. It is envisaged that road closures will occur for a period of approximately 10-15 minutes.

Misfires identified while public roads are closed will be treated as separate blasts to avoid lengthy road closures.

In addition to measures to minimise the duration of closures on an event basis, road closures will be minimised on a weekly basis by designing blasts to minimize the number of road closures required and by scheduling blasts requiring road closure to achieve an even distribution among weeks where practicable.

Road closures will be scheduled to avoid peak traffic periods as far as practicable and will generally occur Monday-Friday between the hours of 10am-12pm. Blasts requiring the closure of public roads will not be tied up if environmental conditions are expected to prevent blasting within the required time frame.

### 3.2. Signage

Permanent signs will be erected on both approaches to the road closure points. These signs will be approved by the RTA and will display the date and time of the next blast at least 48 hours in advance, the anticipated delay and a contact telephone number for public enquiries.

Signs will comply with AS 1743-2001, Road Signs Specifications and be erected in accordance with RTA Traffic Control Plan 47.

### 3.3. Traffic Control Personnel

Personnel appropriately trained and qualified in traffic control (as per requirements of the RTA) will be located at relevant locations to stop traffic prior to a blast. These personnel will be

outfitted with appropriate personal safety equipment, including high visibility clothing. All procedures will be prepared and implemented in accordance with relevant Workcover guidelines. All personnel will utilise relevant communication devices and road closure equipment.

### 3.4. Notification of Road Closures

Notification of forthcoming road closures will generally be undertaken using existing blast notification channels. That is, the blast schedule will be mailed out on a weekly basis to residences on the effected stretch of Denman and Edderton Roads. The blast schedule will also be posted on the Mt Arthur Coal webpage on a weekly basis. Specific notifications will be issued to affected residents on the morning of the blast via telephone or face-to-face communications. Notifications will also be issued on a weekly basis to local emergency services, MSC and neighbouring mines. Notification of forthcoming road closures will also be provided to the local community through appropriate local media channels. Specific inquiries in relation to road closures can also be made by calling the Mt Arthur Coal Community Response Line on **1800 882 044**, 24 hours a day, 7 days a week.

Mt Arthur Coal will communicate scheduled road closures with neighbouring mines so that road closures can be coordinated to minimise cumulative effects.

All affected residents driveways within a road closure area will be closed by traffic control and managed as part of the road closure. Prior notification to all residents with driveways that will be affected by a road closure will be provided.

### 3.5. Emergency Services Notification and Access

Emergency services including Muswellbrook Fire Brigade, Rural Fire Service, Ambulance Service, Police and State Emergency Service will be advised of planned road closures, including proposed times, at least seven days in advance by mail/newsletter/electronic notification as determined in consultation with each authority. Local emergency services will also be notified of a planned road closure on the morning of the blast.

In the event that emergency services vehicles require immediate access through the closed road, road closure personnel will immediately communicate with blasting personnel to ensure a safe thoroughfare is provided for emergency services vehicles. Where possible, and with the safety of all persons being maintained, blasting will be postponed until emergency services have passed safely.

### 3.6. Fly Rock Management

On completion of a blast, Denman Road and Edderton Road will be subjected to a thorough safety inspection. If fly rock or other debris has been emitted onto the road during the blast, a cleanup crew will immediately remove the material prior to the declaration of a safe thoroughfare. Where required, a grader will be made available for immediate clean up of large debris on Denman Rd or Edderton Road. Manning and equipment will be used as required to ensure this occurs in a safe and efficient manner that does not affect the surface of the road. Once the road has been inspected and declared safe, road closure personnel will reopen the road to through traffic.

### 3.7. Road Repairs

Although not anticipated, any road damage incurred from blasting activities will be immediately reported to the RTA and MSC and appropriate traffic management and remediation works will be undertaken. Remediation works will be undertaken by qualified road repair personnel in consultation with MSC. All repairs will be undertaken in a timely manner so as to minimise disruptions to public thoroughfare.

### 3.8. Complaint Response

All complaints received in relation to this RCMP 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 such as time of road closure and duration of road closure. A response will be provided as soon as practicable, which may include the provision of relevant road closure 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.

### 3.9. Complaints Register

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

### 3.10. Contingency Management

In the event of misfire or the presence of flyrock, where a road closure may be extended to a point where queues are extended beyond the standard advance warning signage layout, appropriate personnel will be dispatched to warn approaching motorists of road closure and the presence of stationary traffic.

## 4. Plan Performance and Continual Improvement

### 4.1. Plan Performance

The performance of this RCMP 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 RCMP 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 on the mine's environmental and social performance by applying the principles of best practice to mining operations and community consultation. Improvements to the RCMP 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 RCMP in the Annual Environmental Management Report (AEMR) and provide regular updates to members of the Community Consultative Committee (CCC).

### 6. Review

This RCMP 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 road closure management;
- Following significant incidents at Mt Arthur Coal relating to road closure;
- Following the conduct of an independent environmental audit which requires changes to the Road Closure Management Plan; or
- If there is a relevant change in technology or legislation.

## 7. References

URS (2001), The Mount Arthur North Coal Project Environmental Impact Statement.

Hansen Bailey (2009), Mt Arthur Coal Consolidation Project Environmental Assessment.

Department of Planning, Minister of Planning's Project Approval document (dated 29 September 2010), Application Number 09-0062, Mt Arthur Coal Mine – Open Cut Consolidation Project.

### **Mt Arthur Coal EMS Documents**

*MAC-ENC-MTP-015 Blast Management Plan*

*MAC-ENC-PRO-055 Blast Monitoring Program*

*MAC-ENC-PRO-008 Communication and Reporting*

*MAC-PRD-PRO-043 Blasting within 500M of Public Roads*

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

*MAC-ENC-STD-008 EMS Framework Document*

## Appendix 1

**Table 1: Project Approval Conditions associated with Road Closure Management Plan**

Consent/Licence	Schedule : Condition	Condition / Requirement	Management Plan Section
Open Cut Consolidation Project Approval	3:16	<p><b>Operating Conditions</b></p> <p>16. During mining operations on site, the Proponent shall:</p> <p>(a) implement best blasting practice to:</p> <ul style="list-style-type: none"> <li>• protect the safety of people and livestock in the area surrounding blasting operations;</li> <li>• protect public or private infrastructure/property in the area surrounding blasting operations from blasting damage; and</li> <li>• minimise the dust and fume emissions from blasting at the project;</li> </ul> <p>(b) co-ordinate the timing of blasting on site with the timing of blasting at the Drayton and Bengalla coal mines to minimise the potential cumulative blasting impacts of the three mines; and</p> <p>(c) operate a suitable system to enable the general public and surrounding landowners and tenants to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Director-General.</p>	Refer to BMP
Open Cut Consolidation Project Approval	3:17	<p><b>Blast Management Plan</b></p> <p>17. The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Director-General. This plan must:</p> <p>(a) be prepared in consultation with DECCW, and be submitted to the Director-General for approval by the end of March 2011; and</p> <p>(b) describe the blast mitigation measures that would be implemented to ensure compliance with the relevant conditions of this approval, including detailed demonstration that blasting within the hatched area shown on the figure in Appendix 6 can be undertaken in a manner that will meet the blast impact assessment criteria in Table 8 at all times;</p>	<p>Refer to BMP</p> <p>Refer to BMP</p> <p>Refer to BMP</p>

Consent/Licence	Schedule : Condition	Condition / Requirement	Management Plan Section
		<p>(c) describe the measures that would be implemented to ensure that the general public and surrounding landowners and tenants to get up-to-date information on the blasting schedule;</p> <p>(d) include a road closure management plan, prepared in consultation with the applicable roads authority, that includes provisions for:</p> <ul style="list-style-type: none"> <li>• minimising the duration of closures, both on a per event basis and weekly basis;</li> <li>• avoiding peak traffic periods as far as practicable; and</li> <li>• coordinating with neighbouring mines to minimise the cumulative effect of road closures;</li> </ul> <p>and</p> <p>(e) include a blast monitoring program for evaluating blast-related impacts (including blast-induced seismic activity) on, and demonstrating compliance with the blasting criteria in this approval for:</p> <ul style="list-style-type: none"> <li>• privately-owned residences and structures;</li> <li>• items of Aboriginal (including scarred trees and axe grinding grooves) and nonindigenous cultural heritage significance (including Edinglassie, Rous Lench and Balmoral); and</li> <li>• publicly-owned infrastructure;</li> </ul>	<p>This Plan</p> <p>1.2</p> <p>1.2</p> <p>4.1</p> <p>4.4</p> <p>Refer to Blast Monitoring Program</p>
Open Cut Consolidation Project Approval	5:2	<p><b>Management Plan Requirements</b></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"> <li>• the relevant statutory requirements (including any relevant approval, licence or lease conditions);</li> <li>• any relevant limits or performance measures/criteria;</li> <li>• 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;</li> </ul> <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>Refer to BMP</p> <p>2.0</p> <p>Appendix 1</p> <p>4.0</p> <p>3.0</p>

Consent/Licence	Schedule : Condition	Condition / Requirement	Management Plan Section
		(d) a program to monitor and report on the: <ul style="list-style-type: none"> <li>• impacts and environmental performance of the project;</li> <li>• effectiveness of any management measures (see c above);</li> </ul> (e) a contingency plan to manage any unpredicted impacts and their consequences; (f) a program to investigate and implement ways to improve the environmental performance of the project over time; (g) a protocol for managing and reporting any: <ul style="list-style-type: none"> <li>• incidents;</li> <li>• complaints;</li> <li>• non-compliances with statutory requirements; and</li> <li>• exceedances of the impact assessment criteria and/or performance criteria; and</li> </ul> (h) a protocol for periodic review of the plan.	5.0  3.10 4.0  3.8 3.9  6.0
Open Cut Consolidation Project Approval	5:3	<b>Annual Review</b> 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: <ul style="list-style-type: none"> <li>(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;</li> <li>(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"> <li>• the relevant statutory requirements, limits or performance measures/criteria;</li> <li>• the monitoring results of previous years; and</li> <li>• the relevant predictions in the EA;</li> </ul> </li> <li>(c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;</li> <li>(d) identify any trends in the monitoring data over the life of the project;</li> </ul>	5.0

Consent/Licence	Schedule : Condition	Condition / Requirement	Management Plan Section
		<p>(e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and</p> <p>(f) describe what measures will be implemented over the next year to improve the environmental performance of the project.</p>	
Open Cut Consolidation Project Approval	5:4	<p><b>Revision of Strategies, Plans and Programs</b></p> <p>4. Within 3 months of the submission of an:</p> <p>(a) annual review under condition 3 above;</p> <p>(b) incident report under condition 7 below;</p> <p>(c) audit under condition 9 below; and</p> <p>(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> <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><b>REPORTING</b></p> <p><b>Incident Reporting</b></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>	4.8 4.9
Open Cut Consolidation Project Approval	5:8	<p><b>Regular Reporting</b></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 programs approved under the conditions of this approval, and to the satisfaction of the Director-General.</p>	6.0

Consent/Licence	Schedule : Condition	Condition / Requirement	Management Plan Section
Open Cut Consolidation Project Approval	5:11	<p><b>ACCESS TO INFORMATION</b></p> <p>11. From the end of December 2010, the Proponent shall:</p> <p>(a) make the following information publicly available on its website:</p> <ul style="list-style-type: none"> <li>• a copy of all current statutory approvals for the project;</li> <li>• a copy of the current environmental management strategy and associated plans and programs;</li> <li>• 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;</li> <li>• a complaints register, which is to be updated on a monthly basis;</li> <li>• a copy of the minutes of CCC meetings;</li> <li>• a copy of any Annual Reviews (over the last 5 years);</li> <li>• a copy of any Independent Environmental Audit, and the Proponent's response to the recommendations in any audit;</li> <li>• any other matter required by the Director-General; and</li> </ul> <p>(b) keep this information up to date, to the satisfaction of the Director-General.</p>	1.3
Open Cut Consolidation Project Approval	3:16	<p><b>Operating Conditions</b></p> <p>16. During mining operations on site, the Proponent shall:</p> <p>(a) implement best blasting practice to:</p> <ul style="list-style-type: none"> <li>• protect the safety of people and livestock in the area surrounding blasting operations;</li> <li>• protect public or private infrastructure/property in the area surrounding blasting operations from blasting damage; and</li> <li>• minimise the dust and fume emissions from blasting at the project;</li> </ul> <p>(b) co-ordinate the timing of blasting on site with the timing of blasting at the Drayton and Bengalla coal mines to minimise the potential cumulative blasting impacts of the three mines; and</p> <p>(c) operate a suitable system to enable the general public and surrounding landowners and tenants to get up-to-date information on the proposed blasting schedule on site, to the satisfaction of the Director-General.</p>	Refer to BMP  1.4  3.2 & 3.4

**Note:** BMP refer to MAC-ENC-MTP-015 Blast Management Plan and Blast Monitoring Program refer to MAC-ENC-PRO-055 Blast Monitoring Program