



# Ulan Coal

## PUBLIC SAFETY MANAGEMENT PLAN

<b>Document Information and Revision History</b>	
<b>Document Purpose</b>	<p>The purpose of this management plan is to facilitate provision of appropriate management protocols to minimise public safety risks from potential impacts resulting of mine subsidence.</p> <p>The development of this management plan also ensures compliance with DA No. 113-12-98 DA, No. 103-5-2005 and DA No. 16/93 Merriwa Council &amp; DA78/93 Mudgee Council.</p>
<b>Key Words</b>	Subsidence, Public Safety Management, Community, roads, access, external stakeholders, communication.
<b>Document Owner</b>	Environment & Community Manager
<b>Approved By</b>	Phil English (Signed original on file)
	Environment & Community Manager   Date: 02/01/2008
<b>Distribution List</b>	Operations Manager (Underground) Mine Manager (Underground) Health & Safety Manager (Underground) Environment & Community Officer Engineering Project Manager Technical Services Manager
<b>Review Frequency</b>	2 Yearly
<b>Document Location</b>	Intranet: HSEC/Work Environment/Land Management

Version No	Review Date	Review Team	Nature of Amendment
0	July 2005	Phillip Orr	Final document as submitted for SMP Approval for LW23-26, W1
1	January 2008	Phil English, Jamie Lees, Kylie Hannigan, Murray Wood, Richard Van Laeren, Cheryl Holden, Craig Bagnall (GSS)	Revised document for SMP for LW W2, W3 to new XCN format.



CONTENTS

**1.0 Scope..... 3**

**2.0 Objectives..... 6**

**3.0 Background..... 6**

**4.0 Potential Impacts..... 6**

**5.0 Mitigation Measures ..... 7**

**5.1 Complaints Management ..... 8**

**6.0 Monitoring & Measurement..... 8**

**6.1 Pre-mining monitoring / inspections ..... 8**

**6.2 Post mining monitoring / inspections ..... 9**

**7.0 Reporting and Reviewing..... 9**

**7.1 Reporting..... 9**

**7.2 Inspections ..... 9**

**7.3 Review ..... 10**

**8.0 Accountability / Responsibilities..... 10**

**9.0 Relevant documents and Legislation..... 10**



## **1.0 Scope**

The purpose of this plan is to provide the management framework for ensuring public safety at Ulan Underground operations.

The structure of this Public Safety Management Plan (“the Plan”) is to address conditions Development Consent 113-12-98, issued by the Department of Infrastructure, Planning & Natural Resources (DIPNR now the Department of Planning) and Subsidence Management Plan Approval issued to UCML on the 1 August 2006 by the Department of Primary Industries – Mineral Resources (DPI).

Statutory conditions addressed under this management plan are detailed in **Tables 1-4** below.

HSEC MGP 033 Public Safety Management Plan	Approved Version: 1	Effective: 02/01/2008 Review: 31/12/2009	Page 3 of 11
---	------------------------	---	-----------------



**Table 1: Summary of the SMP Approval conditions for Longwall 23-26 and West 1 and the relevant sections of the Management Plan**

Condition	Management Plan Condition	Section
28	The Leaseholder shall implement a <b>public safety management plan</b> to ensure public safety in any surface areas that may be affected by subsidence arising from longwall mining. This plan shall include, but not be limited to, regular monitoring of areas or infrastructure/structures posing safety risks, erection of warning signs, entry restrictions, backfilling of dangerous surface cracks and securing of unstable built structures or rockmass where required and appropriate, and the provision of timely notification of mining progress to the community and any other relevant stakeholders where management of public safety is required. The plan shall be developed and implemented to the satisfaction of the District Inspector of Coal Mines.	<b>This document</b>

**Table 2: Summary of consent conditions (DA No. 16/93 Merriwa Council & DA No. 78/93 Mudgee Council) and the relevant sections of the Management Plan**

Condition	Management Plan Condition	Section
19	The applicant shall take all necessary measures to maintain the safety and convenience of traffic on public roads during the construction of the proposed development.	<b>Section 7.2</b> (see also <b>HSEC MGP 030 Management Plan for the Bobadeen Road</b> )



**Table 3: Summary of consent conditions (DA No. 113-12-98) and the relevant sections of the Management Plan**

Condition	Management Plan Condition	Section
7.1(a)	The applicant shall ensure that any impact due to surface subsidence within the Crown Land Area is restored and safeguarded to the extent that access is not compromised.	<b>Section 7.2</b> (see also <b>HSEC MGP 020 Subsidence Management Plan</b> )

**Table 4: Summary of Mining Lease conditions (ML 1554) and the relevant sections of the Management Plan**

Condition	Management Plan Condition	Section
12	Operations must be conducted in such a manner that ensures the safety of persons or stock in the vicinity of the operations. All drill holes shafts and excavations must be appropriately protected, to the satisfaction of the Director-General, to ensure that access to them by persons and stock is restricted. Abandoned shafts and excavations opened up or used by the lease holder must be filled in or otherwise rendered safe to a standard acceptable to the Director-General.	<b>Section 6.0</b> (see also <b>HSEC MGP 020 -Subsidence Management Plan</b> )



## 2.0 Objectives

UCML aims to provide appropriate management protocols and minimise the risk to public safety as a result of Longwall mining. The main strategy adopted is to restrict access to areas where subsidence is likely to occur and regularly inspect the controls in place to confirm their integrity and effectiveness.

Controls in this instance includes implementing a monitoring program to provide early identification of potential public safety issues and ensure appropriate mitigation measures are implemented to remove the risks as detailed in *HSEC MGP 007 – Environmental Management Strategy*.

More specifically the objectives of this Management Plan are to:

- Identify and list possible Public Safety issues that that may result from mine induced subsidence;
- Outline the monitoring and measurement protocols;
- Detail the review and reporting protocols; and
- Establish responsibilities to ensure monitoring of the surface areas posing safety risks to detect any potential hazards that may have resulted from mine induced subsidence.

## 3.0 Background

Public safety management is undertaken at UCML where there is potential for public safety issues that may result from mine induced subsidence. All the land within the mining area is owned by UCML and is used for mining related activities (e.g fans, pluggers, etc) and agricultural purposes (grazing and cropping) including the Bobadeen Irrigation Scheme.

There are no private dwellings within the area that are not owned by UCML. This plan has been developed by UCML to provide appropriate management protocols and minimise the risk public safety as a result of Longwall mining. The main strategy adopted is to restrict access to areas where subsidence is likely to occur and regular inspect and monitor the controls in place to confirm their integrity and effectiveness.

## 4.0 Potential Impacts

UCML has completed a Risk Assessment in order to assess all public safety risks that might be associated with mine induced subsidence in the area. **Table 5** is a summary of the potential safety risk that may occur as a result of mine induced subsidence.

HSEC MGP 033 Public Safety Management Plan	Approved Version: 1	Effective: 02/01/2008 Review: 31/12/2009	Page 6 of 11
---	------------------------	---	-----------------



**Table 5: Summary of possible impacts that may occur as a result of mine induced subsidence**

- Tensile cracks may appear along roadways and walking tracks within the area. While generally bush tracks are not impacted on by subsidence, there is the potential for people to injure themselves or damage equipment if they fall into cracks;
- Tensile cracking at the surface (not on designated tracks or road ways) may not be visible and may present a risk to persons driving or walking across site. This also includes land owned by UCML, but leased by individuals for an agricultural enterprise. Undertaking activities such as mustering stock, pest control, etc in these areas may be unsafe;
- While the EIS (Kinhill, 1998) did not identify any cliff lines within the site there are some rock outcrops in the western portion of the site. Subsidence may cause rock falls. In addition some areas may be weakened by subsidence, but not fall immediately and therefore also present a public safety risk; and
- Some of the older structures within the area (i.e. old farm sheds) will be subject to subsidence which may affect structural their structural integrity which presents a public safety risk.

## 5.0 Mitigation Measures

The following section outlines the control measures adopted by UCML as part of their commitment to public safety within the mining area.

The following is a *summary* of the control measures to be employed by UCML:

- Access to the site along Bobadeen Road is control by way of locked gate and registration points (sign in). Any individuals entering the site, i.e. Ulan Underground Mining Operations are to comply with the induction requirements as detailed with the *HSEC STD 009 – Overview HSEC Management System* and the safety requirements prescribed under this system, i.e. site inductions etc;
- Individuals working within the mining area required by Ulan are to ensure that works are undertaken in accordance with *HSEC MGP 013 - Contractor Management*, i.e. obtain a Contractor Work Authorisation Form completed by a UCML representative;
- Access to the mine are from the west is controlled by way of a locked gate on Broken Back Road.
- Gates and fences are inspected regularly and repaired where necessary to prevent access to the general public;



- Signs have been erected on the gates and fences owned by UCML warning the public of prohibited entry and that underground mining is occurring in the area;
- UCML is committed to regularly communicating with leaseholders to advise them of the location of the Longwall in relation to the land they lease from UCML;
- Where necessary UCML may instruct the lessee to remove cattle from an area to restrict the number of personnel that need to access the area, assist with rehabilitation of the areas affected by subsidence and prevent injury to cattle; and
- UCML carries out inspections over the surface being mined to monitor for signs of cracking. The inspections are documented and photos taken where appropriate in accordance with *HSEC MGP 007 – Environmental Management Strategy*.

**5.1 Complaints Management**

Community complaints management includes receipt of complaints, investigation, and implementation of appropriate remedial action, feedback to the complainant, communication to site management or personnel and notification to the external bodies where necessary.

Complaints received at the Ulan Mine will be managed in accordance with *HSEC PRO 001 – Complaints Procedure*. A register of complaints is retained in accordance with this procedure.

Details of all community complaints are to be recorded and reported in accordance with *HSEC MGP 007 – Environmental Management Strategy*.

**6.0 Monitoring & Measurement**

The following section outlines the monitoring inspections and measurement requirements which have been adopted as part of the Management Plan. Additionally, it is noted that subsidence monitoring includes aspects relating to safety-related issues such as surface cracking, and is undertaken in accordance with the monitoring program outlined in *HSEC MGP 020 Subsidence Monitoring Management Plan*.

**6.1 Pre-mining monitoring / inspections**

The following section outlines the pre-mining monitoring and measurement requirements.

**6.1.1 Audit of fences, gates and signs**

Prior to the commencement of mining in the area UCML will undertake an audit of all fences and gates to identify the type of fence, its condition and consideration of any security issues. Where required the fences will be fixed.

A copy of the results will be retained by UCML.

**6.1.2 Notification of Lessee(s)**

At least two (2) weeks prior to the commencement of mining in the area, UCML will notify all lessees or occupiers of UCML land of the commencement of mining under the land that they occupy. UCML should explain to the lessee(s) the likely impacts (i.e. tensile cracking) that are expected and in what locations.

HSEC MGP 033 Public Safety Management Plan	Approved Version: 1	Effective: 02/01/2008 Review: 31/12/2009	Page 8 of 11
---	------------------------	---	-----------------



**6.1.3 Surface Inspections**

At least two (2) weeks prior to the commencement of mining in the area, UCML will undertake an inspection of the surface to identify condition and potential public safety risks.

A copy of the inspection records will be retained by UCML.

**6.2 Post mining monitoring / inspections**

The following section outlines the monitoring and measure requirements both during Longwall mining.

**6.2.1 Regular Inspections of site security**

During long wall mining a representative of UCML will undertake inspections in accordance with the Inspection Protocol provisions of *HSEC MGP 007 – Environmental Management Strategy*. Inspections will note security provisions maintained in order to prevent public access to the extraction area, external fences, warning signposts and gates, checking security and serviceability.

A copy of the results will be retained by UCML in accordance with *HSEC STD 010 – Records Management*.

**6.2.2 Regular Inspections of surface cracking**

During long wall mining a representative of UCML will undertake inspections in accordance with the Inspection Protocol provisions of *HSEC MGP 007 – Environmental Management Strategy* to review areas that have been mined within the proceeding six (6) monthly period.

The inspection will identify and map areas where cracking has occurred and then recommend appropriate remediation works. In addition the success of the repairs will be assessed. Once deemed successful, the sites will no longer be inspected.

**7.0 Reporting and Reviewing**

The following section includes the Reporting and Reviewing for the Management Plan.

**7.1 Reporting**

All external and internal reporting is undertaken in accordance with the reporting requirements of *HSEC MGP 007 – Environmental Management Strategy* and *HSEC STD 026 – Measurement and Reporting*.

**7.2 Inspections**

UCML will conduct regular inspections of the Ulan Mine in accordance with *HSEC MGP 007 - Environmental Management Strategy*. Any improvements made as a result of the auditing process will be reported in that AEMR reporting period.

UCML Environment & Community Manager co-ordinates regular environmental inspections of all relevant mine site activities in accordance with *HSEC MGP 007 - Environmental Management Strategy*. This process includes all contractors working on the site. Any findings from these inspections are reported to Xstrata Coal NSW in the



Monthly Environmental Report as detailed in *HSEC STD 006 – Hazard and Incident Management*.

UCML endeavour to take all reasonable measures to maintain the safety and convenience of traffic on public roads during the construction and operation of the mine. Appropriate traffic control is implemented where mine activities impact on public roads. Any impact due to surface subsidence within the Crown Land Area is restored and safeguarded to the extent that access is not compromised.

Where non-conformances are observed the person responsible for the area is notified immediately and the issue rectified. Any non-conformances resulting from these inspections are recorded by the Environment and Community Officer in the non-conformance register (XstraSafe) for follow-up action.

Additional audits are undertaken by Xstrata at a corporate level and the various regulatory agencies (e.g. DNR, DPI and DEC) also undertake regular inspections.

**7.3 Review**

The Plan will be reviewed and updated regularly in accordance with the Document Control provisions of *HSEC MGP 007 – Environmental Management Strategy*. This will be generally as follows:

- at least every two (2) years ;
- following the issue of new or modified approval conditions for all relevant SMP Approvals, Development Consents, Mining Leases or Licences (EPL);
- when there is a change to the mining operation such that it is likely to change the impacts related to Erosion and Sediment Control; and/or
- as otherwise directed by the Director General in consultation with relevant government agencies.

The plan will be reviewed and updated to ensure compliance with all new and existing statutory approvals and conditions relevant to the mining areas.

**8.0 Accountability / Responsibilities**

The Environment & Community Manager (ECM) is responsible for implementation of HSEC MGP 033 – Public Safety Management Plan, while the Operations Managers of the Underground is responsible for ensuring that adequate resources are available for the implementation of the Plan.

Notwithstanding this, specific individual responsibilities are also provided for in *HSEC STD 009 – Overview HSEC Management System*. The Manager(s) will allocate responsibility for specific tasks where necessary.

The ECM and the Environment & Community Officer (ECO) are to provide technical support to the Manager(s) for all water related issues where required.

**9.0 Relevant documents and Legislation**

**Legislation**

- Coal Mines Health & Safety Act 2002
- Coal Mine Health & Safety Regulation 2006

HSEC MGP 033 Public Safety Management Plan	Approved Version: 1	Effective: 02/01/2008 Review: 31/12/2009	Page 10 of 11
---	------------------------	---	------------------



- Occupational Health & Safety Amendment (Coal Workplaces) Regulation 2006
- Occupational Health & Safety Act 2000
- Occupational Health & Safety Regulation 2001
- Environmental Planning and Assessment Act 1979

## Relevant Documents

- *HSEC STD 009 – Overview HSEC Management System*
- *HSEC MGP 007 – Environmental Management Strategy*
- *HSEC STD 006 – Hazard and Incident Management*
- *HSEC STD 026 – Measurement and Reporting*
- *HSEC PRO 001 – Complaints Procedure*

## Forms

- Ulan Coal Incident Report and Investigation Form
- DPI Coal Notification of Incident Form
- Incident Notification Checklist
- Potential Hazard/Improvement Form