

Ulan Coal

BUSHFIRE MANAGEMENT PLAN

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1.0 SCOPE

Ulan Coal Mines Limited (UCML) operates both underground and open cut mining operation near the village of Ulan, approximately 45 kilometres north east of the township of Mudgee. The current operations include a dragline, stockpiles, a coal handling and processing plant (CHPP) conveyors administration buildings, train loading facilities, mine workings with underground access point and associated remote infrastructure. Operation of the open cut mine, coal preparation plant and rail loading facility is contracted and is currently operated by Roche Mining.

UCML is a significant land manager with approximately 17,866 ha being owned or managed by the company. This land includes areas of active mining as well as large areas of buffer lands. Over this land UCML has implemented a number of bushfire control initiatives around the operation to mitigate potential impacts on company owned and surrounding lands. The purpose of this Management Plan is to ensure the effectiveness of these initiatives, and that the regulatory obligations are being met.

This Management Plan and its subsequent reviews the requirements of conditions 3.2(d) and 3.8 of the Development Consent 113-12-98 issued by the Department of Planning (formerly DIPNR).

Apart from the specific requirements of ML 1468, the general principals embodied in this Management Plan are to be applied to all activities at the Mine over all land owned and managed by UCML (this includes lands leased by UCML). The compliance table (**Table 1 & 2**) summarises where this plan addresses the relevant conditions of the Development Approval.

Table 1: Compliance Table (DA No. 329-09-00)

Condition	Management Plan Condition	Section
Schedule 2 3.2	(i) The applicant shall: (a) (ii) prepare of update the following environmental management plans for the highwall mining extension in the DA area, prior to the commencement of construction works outside the approved stage 2 open cut area: <ul style="list-style-type: none"> • Bushfire Management Plan (refer condition 3.7) (b) The management plans are to be revised/ updated at least every seven years or otherwise directed by the director general in consultation with the relevant government Agencies. They will reflect changing environmental requirements or changes in technology/ operational practices. Changes shall be made and approved in the same manner as the initial environmental management plan. Plans shall also be made publicly available at MeSC within two mweeks of the approval of the relevant government authority	This entire Mgt Plan
Schedule 2 3.7	The applicant shall: (a) provide adequate fire protection works on the sites of surface works in accordance with the coal mines regulation act, 1982: and (b) prior to commencement of construction of surface facilities/ works update the existing bushfire management plan for all its holdings contained in the DA area to the satisfaction of MeSC	This entire Mgt Plan



Table 2: Compliance Table (DA No. 113-12-98)

Condition	Management Plan Condition	Section
Schedule 2 3.2	3.2 Environmental Management Strategies and Plans (d) The Applicant shall prepare the following environmental management plans: • Bushfire management plan (refer Condition 3.8(b)) (e) The management plans are to be revised/updated at least every 7 years or as otherwise directed by the Director-General in consultation with the relevant government agencies. They will reflect changing environmental requirements or changes in technology/operational practices. Changes shall be made and approved in the same manner as the initial environmental management plan. The plans shall also be made publicly available at MeSC and MuSC within two weeks of approval of the relevant government authority	This entire Mgt Plan
3.8 (a)	The Applicant shall: (a) Provide adequate fire protection works on the sites of surface works in accordance with the Coal Mine Regulation Act, 1982; and	Section 3.3 & Env. Proc.
3.8 (b)	The Applicant shall: (b) Prior to commencement of construction of any surface facilities/works update the existing Bushfire Management Plan for all its holdings contained in the DA, to the satisfaction of MeSc and MuSC.	This entire Mgt Plan

1.1 Objectives

The objectives of this management plan are to minimise the risk of bushfires and enable the rapid control of outbreaks should they occur. More specifically the objectives of this plan are to:

- Meet the requirements of development consent relevant to the operation of UCML;
- Minimise potential for spread of bushfires within and surrounding UCML lease areas;
- Protect people, property and assets;
- Protect areas of heritage value;
- Protect areas of threatened flora and/or fauna.
- Detail the Review and Reporting protocols; and
- Establish Responsibilities for the management of bushfire related issues at UCML.



2.0 IDENTIFIED HAZARDS / RISKS

The land around the Ulan Coal Mine has a long bushfire history. The official fire season in NSW runs from **1st October to 31st March (inclusive)** of the following year, however the fire risk throughout the season may be varied depending upon the existing or forecast weather conditions and fuel states applicable at the time. Climatic conditions can contribute to the severity of a fire season. Very severe conditions usually result from:

- Wet, late summer and autumn promoting heavy fuel accumulation;
- Dry and windy winters with heavy frosts;
- Dry springs and the early onset of summer conditions;
- Occurrence of an extended drought period; or
- Lower than average rainfall throughout winter.

An assessment of potential impacts related to bushfire (Kinhill, 1998) concluded that the construction and mining activity in and around the operations would not necessarily increase the risk of fires started due to human causes. Notwithstanding this, it is acknowledged by UCML that should a bushfire occur and be allowed to continue unchecked, it will pose a threat to:

- Grass cover, exposing the land to soil erosion;
- Flora and fauna habitat;
- Land productivity;
- Mining equipment and other company assets; and
- The safety and property of neighbouring land owners, including the Goulburn River National Park

Additionally as part of UCML **HSEC-MGP-007 Environmental Management Strategy** (EMS) review and in accordance with **HSEC-STD-012 Risk Management**, UCML undertakes a detailed Environmental Risk Assessment in order to identify all “aspects and impacts” associated with the open cut and underground mines.

Additional information relating to bushfires can be obtained from the Rural Bushfire website at www.bushfire.nsw.gov.au .



3.0 CONTROLS

A detailed description of the control measures, including individual responsibilities, for the prevention and control of Bushfires impacts are presented in the HSEC-PRO-010 Bushfire Management Procedure

A number of specific control measures have been included in some detail below as they considered integral in the management of Bushfire in the area. These detailed control measures include:

- Hazard Reduction Burning;
- Slashing grass around infrastructure;
- Maintaining Fire breaks (as required);

These measures aim to reduce the severity of a bushfire by reducing the amount of fuel available to burn, should one occur, as well as providing access and firebreaks to enable easier fire control and containment, reducing the potential for impacts.

- Emergency Response and preparedness Planning; and
- Maintaining ongoing communications (and representation) with the NSW Rural Fire Service & District Bush Fire Committees.

The UCML **HSEC MGP 003 Emergency Response Plan** and the **Cudgegong District Bushfire Risk Management Plan** provide additional information on emergency contacts should they be required.

3.1 Emergency Response and Preparedness Plans

Occurrence of a fire will trigger UCML’s emergency response procedure as detailed within **HSEC-MGP-003 Emergency Response Plan**. Serious fires, or those that cannot be controlled by on-site resources, will be reported to the **NSW Rural Fire Service (Cudgegong District) via the emergency telephone number 000**.

Where a Bushfire occurrence has been reported to the NSW Rural Fire Service a local Bushfire Brigade will be deployed to control the fire. The local Brigades which may respond to an incident are:

- Cooks Gap (Primary local brigade)
- Cainbil-bungaba
- Munmurra Brigade
- Gulgong
- Mudgee

The allocation of resources to a fire will be determined by the NSW Rural Fire Service in accordance with the Cudgegong District Bushfire Operations Plan. Further contact information is included in the Cudgegong District Bushfire Risk Management Plan (the current version should be obtained from the NSW RFS as required).

A copy of HSEC-MGP-003 Emergency Response Plan is available on the UCML Intranet.



3.2 Cudgegong District Bushfire Risk Management Plan

Ulan Coal Mines Limited is located within the NSW Rural Fire Service - Cudgegong District zone which encompasses the Mid Western Regional Council local government area. The Bushfire Management Committee (BFMC) for this district has been established to co-ordinate the resources, activities and planning of all significant land management authorities with an interest in Bushfire Management in the zone. To assist this process the committee has prepared a Bushfire Risk Management Plan in accordance with section 52 of the *Rural Fires Act* (1997).

The plan is a strategic level document which:

- identifies the level of bush fire risk across the Bush Fire Management Committee’s area;
- identifies strategies which will be implemented to manage the bush fire risks identified; and
- identifies the land managers responsible for implementing the BFRMP.

The current approved version of this document is dated the 29th may 1999. This Plan identifies UCML land holdings as an important community asset based on its significance as a regional employer.

Table 3 is taken from the BFMC Risk Management Plan which identifies the key Bush fire management option.

Table 3 Bush Fire Management Options

Avoid the Risk	By deciding not to proceed with the activity likely to generate the bush fire risk. This option is relevant to future land use and development decisions. Examples of risk avoidance strategies include, prohibiting certain types of development in bush fire prone areas, and requiring adequate fire protection zones to be established between developments and the bush fire hazard.
Reduce the Hazard	Programs to reduce the level of fuel available to burn in a bush fire. Examples of hazard reduction strategies include hazard reduction burning, slashing or ploughing of fire breaks, or manual clearing of bush fire hazards.
Reduce Ignitions	Programs to reduce the number of deliberate and accidental man made ignitions. Examples of ignition reduction strategies include total fire bans, arson investigation programs, and issuing of permits to burn during the bush fire danger season.
Reduce Vulnerability	Programs to increase the resilience of community and environmental / ecological assets to bush fires. Examples of vulnerability reduction strategies include community education programs, and building restrictions in bush fire prone areas.
Residual Risk	Bush fire risk management strategies are designed to reduce the level of risk; but will not eliminate the risk entirely. Some level of residual risk may remain, which will be managed with fire response strategies such as fire suppression operations, early fire detection, and evacuation.



UCML where requested provides assistance to the BFMC due to the significant land holdings it controls. This assistance is in the form of hazard reduction burns, fire breaks, and trails. The Cudgegong District Rural Fire Service provide advice to UCML regarding firebreaks, control burns and other requirements necessary to minimise fire risk in the area within and adjacent to the mine site.

Current copies of the Cudgegong District Bushfire Risk Management Plan can be obtained from the Cudgegong District NSW Rural Fire Service. UCML has been nominated as a “*registered organisation*” within Risk Management Plan and as such will be automatically sent copies of the Management Plans as they are reviewed and amended.

3.3 On Site Fire Control Infrastructure

Fire control infrastructure and equipment is installed in all existing UCML facilities. The following sections outline the nature and location of this infrastructure and equipment should it be required.

Figure 1 attached as Appendix 1 shows the location of access tracks within and around UCML land holdings.

(a) Mobile Plant and Equipment

Both UCML and DownerEDI Mining have plant and equipment that can be used in the event of a bushfire such as water carts, graders and bulldozers. Deployment of any equipment will be at the discretion of UCML Operations Manager and DownerEDI Project Manager.

The on-site water cart is to be equipped with STORZ fittings, which are compatible with the NSW Fire Brigade and NSW Rural Fire Service. These fittings are to be regularly maintained and prior to each fire season checked and serviced to ensure that they are working.

(b) Water Holding Structures

Water holding structures on the site are available to assist in fighting fires by being a ready source of water. Access to these dams is to be maintained so that vehicles can easily access them.

Fixed structures such as water fill-points and pipelines also present an opportunity for water supply.

(c) Access Roads

The existing network of access tracks / roads provides high quality service roads for access by fire fighting vehicles into the heavily vegetated areas surrounding the mine site. In addition they also serve to provide fire break opportunities and delineation of areas to be used in either hazard reduction or back burning operations as required.



3.4 Hazard Reduction Burning

Uncontrolled bushfires on the UCML lands would pose both an ecological and economic threat to the Ulan area, as well as potentially threatening the safety of staff and property at the mine. The risk of bushfire escaping onto neighbouring agricultural land and Goulbourn River National Parks land is considered high (Eco Logical Pty Ltd, 2002). Controlled hazard reduction burning operations are a recognised strategy of attempting to reduce the risk of uncontrollable bushfire and its associated effects.

Prior to any Proposed Hazard Reduction Burn the following considerations will be given:

- Consultation with the NSW Rural Fire Service and the BFMC;
- Application for a hazard Reduction Burn Certificate
- Prepare a Review of Environmental Factors (REF) for the Burn Area. The REF must be prepared in consultation with the NSW Rural Fire Service.
- All hazard reduction works are to be undertaken in accordance with the REF.

3.5 Asset and Infrastructure Protection.

All assets (e.g. buildings, pump stations, pipelines, and air ventilation shafts, etc) located in close proximity to the heavily vegetated areas will be managed in accordance with the NSW Rural Fire Service guidelines "*Planning for Bushfire Protection – Guide for Councils, Planners, Fire Authorities, Developers and Home Owners*" (2006). A copy of this Guideline can be downloaded from the NSW Rural Fire Service Website at www.bushfire.nsw.gov.au

3.6 Environmental Inspections

Regular inspections will be made as part of the ongoing land management inspections by the Environment & Community Officer (ECO) to ensure adequacy of fire control measures. This will include the assessment of fuel loading, identification of areas around site infrastructure and assets that require slashing and the inspection of firebreaks to ensure they are adequate for bushfire management. These inspections will be in accordance with the UCML Environmental Management Strategy (EMS). Any improvements made as a result of the inspections process will be reported in that AEMR reporting period.

3.7 Proposed Works Plan / Review Form

Prior to any disturbance or clearing of land within the mining lease area or Hazard Reduction Burns, UCML completes a **Proposed Works Application / Review**. This process incorporates a review of all environmental factors, including but not limited to, the following key areas:

- Environmental Risks;
- Land Ownership and Title;
- Land Zoning;
- Relevant development consent conditions;
- Lease and Colliery Boundaries
- Protected lands
- Aboriginal and Cultural heritage issues;



- Flora & Fauna
- Erosion & Sediment Control;
- Noise
- Air & Water Quality; and
- Visual Amenity.

The application for a Proposed Works Application / review is made to the Environmental Officer for approval. Where an activity is determined likely to have a impact on an bushfire related issue, it is identified prior to it being undertaken and an appropriate management control is implemented.

3.8 Community Consultation

UCML actively encourages engagement with the wider community in accordance with HSEC-MGP-035 Social Involvement Plan. All bushfire related issues and complaints received by either UCML or DownerEDI are to be addressed in accordance with **HSEC-PRO-001 Complaints Procedure**. This discussion includes the findings of investigations undertaken by UCML as well as any outcomes, including additional control strategies to be put in place to address the concern (if necessary).

Any significant changes to the Bushfire Management Plan will be presented to the CCC for their consideration and input. Copies of the minutes from all CCC recording the meeting are available on UCML Website www.ulancoal.com.au

3.9 Training and Awareness

UCML recognises that training and awareness is an integral part of the Environmental Management Strategy. This is the means by which personnel are informed about the components of the Bushfire Management Plan and how it is implemented on the sites. The training also includes detail on people’s specific responsibilities with respect to the management of Bushfire related issues on the mining lease.

UCML’s environmental training and awareness program consists of induction training for new starters and contractors along with refresher and ongoing “toolbox” training for all permanent employees as required.

All environmental training and awareness completed at UCML is undertaken in accordance with **Section 7.0 (Implementation & Operation)** of the **HSEC-MGP-007 Environmental Management Strategy** and **HSEC-STD-034 Training and Competency Management**.



4.0 DEFINITIONS

RFS	Rural Fire Service – Agency responsible for Bushfire Management in country NSW.
Hazard Reduction Burn	A controlled fire deliberately set with the expressed purpose of reducing fuel loads. The fire is set during the cooler months of the year in order to reduce the likelihood of a “hot” fire.
Asset Protection Zone	The area immediately around the asset that is cleared to reduce fuel load and protect the asset. The size of the asset protection zone varies depending on aspect, topography and location in relation to vegetated areas.
Fire Breaks	Constructed roadways adjacent to assets and / or property boundaries which are completed void of fuel (e.g. vegetation). Usually constructed using a grader.

5.0 ACCOUNTABILITY / RESPONSIBILITIES

The Environment & Community Manager (ECM) is responsible for the implementation of the Bushfire Management Plan, while the Operations Managers of the Ulan Underground Operations and the Ulan Open Cut Operations are responsible for ensuring that adequate resources are available for the implementation of the Bushfire Management Plan. Notwithstanding this, specific individual responsibilities are provided in the **HSEC-PRO-010 Bushfire Management Procedure**.

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

Role Accountabilities for this document

Role / Title	Accountability / Responsibility
Operations Manager	<ul style="list-style-type: none"> Provide adequate resources for the implementation of the Bush Fire Management Plan.
Environment & Community Manager	<ul style="list-style-type: none"> Implementation Bush Fire Management Plan Ensure compliance with all requirements detailed in the Bush Fire Management Plan Attend BFMC meetings as required.
Environment & Community Officer	<ul style="list-style-type: none"> Undertaken routine environmental inspections Implement a Hazard Reduction Program in consultation with NSW RFS. Co-ordinate environmental training and ensure it includes training in biodiversity and land management. Initiate annual meetings with local RFS brigades to allow brigades to familiarise themselves with UCML assets



6.0 REFERENCES

The following section lists the relevant documentation as applicable to the Bushfire Management Plan for the Ulan Coal Mine. A summary of the relevant legislation has been noted below however a more comprehensive list is included in the register of *Legal and Other Requirements* of the UCML EMS.

6.1 Relevant Documents

- Kinhill Pty Ltd (1998) Mining Lease Application No. 80 – Development Application and Environmental Impact Statement, Ulan Coal Mines Limited;
- Eco Logical Pty Ltd (2002) Review of Environmental Factors (REF) for Hazard Reduction Burn at Ulan Coal Mine.
- UCML Environmental Management Framework – Inspection Checklists
- UCML Emergency Response Management Plan

6.2 Legislation

- Coal Mines Regulations Act (2000);
- Rural Fires Act (1997)
- Environmental Planning and Assessment Act (1979)
- Rural Fires and Environmental Assessment Legislation Amendment Act (2000)

6.3 Forms

- Proposed Works Application/Review

7.0 REPORTING and REVIEWING

The following section of the Management Plan includes the Reporting and Reviewing requirements relating to the management of bushfire related issues at the Ulan Coal Mine.

7.1 Reporting

All external and internal reporting is undertaken in accordance with the reporting requirements of the **HSEC-MGP-007 Environmental Management Strategy & HSEC-STD- 020 Measuring and Reporting**.

A summary of any bushfire management issues and actions arising throughout the year will generally be presented in the Annual Environmental Management Report (AEMR). This also includes a summary of the monitoring and measurement outcomes.

7.2 Review

The Plan will be reviewed and updated regularly in accordance with the **HSEC-MGP-007 Environmental Management Strategy**. The review will include an assessment of the effectiveness of the established bushfire management controls and their performance against the Plan’s objectives. Progressive amendments will be made to the Plan as a result of UCML’s continuous improvement process. Any amendments the Plan will be undertaken in consultation with the appropriate regulatory authorities and the relevant local Rural Fire Brigades.

Notwithstanding the above, in accordance with the Development Consent, the Plan is to be revised / updated at least every seven (7) years or as otherwise directed by the Director General in consultation with the relevant government agencies. The changes will reflect changing environmental requirements or changes in technology/operational practices.

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Appendix 1: UCML ROAD & TRAIL NETWORK

