



NAMOI MINING PTY. LTD.

A.C.N. 071 158 373, A.B.N. 24 071 158 373

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Bushfire Management Plan

for the

Sunnyside Coal Mine



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Sunnyside Coal Mine

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Document Control*					
Edition	Revision	Comment	Author	Date	Authorised by:
1	0	Initial Document	J Scealy	Nov 09	D Young

*To be revised at least every 2 years or following relevant significant changes

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CONTENTS

Acronyms Used Throughout This Plan	iv
1 Scope and Objectives.....	1
1.1 Introduction	1
1.2 Plan Objectives	1
1.3 Plan Scope	1
2 Prior Assessments	2
3 Consultation	2
4 Responsibilities	2
5 Potential Causes of Bushfire	3
6 Controls.....	3
6.1 Introduction	3
6.2 Mobile Equipment and Mine Operations.....	4
6.3 Fixed Plant and Buildings.....	5
6.4 Fuel and Oil Management.....	5
6.5 Mine Site Protocols	6
6.6 Fire Fighting Equipment and Protection	7
6.7 Training.....	9
7 External Assistance.....	9
8 Training, Plan Review and Record Keeping	9
8.1 Training.....	9
8.2 Plan Review	9
8.3 Records	9
9 Community Involvement	9
10 References	10

ACRONYMS USED THROUGHOUT THIS PLAN

BMP	-	Blasting Monitoring Program
CHPP	-	Coal Handling and Preparation Plant
EA	-	Environmental Assessment
GSC	-	Gunnedah Shire Council
ML	-	Mining Lease
NMPL	-	Namoi Mining Pty Ltd
PA	-	Project Approval
RFS	-	Rural Fire Service

1 SCOPE AND OBJECTIVES

1.1 Introduction

The Bushfire Management Plan (BMP) has been prepared for the Sunnyside Coal Mine (the mine) in compliance with Commitment 18.17 of the Statement of Commitments listed in Appendix 3 of PA 06_0308, granted by the Minister for Planning on 24th September 2008 (**Appendix 1**). The mine is located approximately 15km west of Gunnedah (see **Figure 1**) and is being developed by Namoi Mining Pty Ltd (NMPL), a subsidiary of Whitehaven Coal Limited.

The mine lies within a 240 ha area covered by Mining Lease (ML) 1624, located entirely on the “Sunnyside” property. The boundaries of ML 1624 are shown on **Figure 2** and are as follows:

- The northern boundary aligned with Coochooboonah Lane and opposite the “Ferndale” property, which is privately-owned;
- The northern section of the western boundary lies within Company-owned (property name??). The southern section of the western boundary is aligned with the boundary of the privately-owned “Ivanhoe” property’
- The southern boundary traverses the Company-owned “Sunnyside” property; and
- The eastern boundary is aligned with the boundary of the Company-owned “Lilydale” property.

Figure 2 also presents the land ownership details of the land on and surrounding the mining lease.

The Sunnyside Coal Mine also incorporates an approved transport route between the mine site and the Whitehaven Coal Handling and Preparation Plan (CHPP) near Gunnedah. It is defined in Condition 7 of PA 06_0308 and is shown on **Figure 1**.

1.2 Plan Objectives

The objectives of the BMP are to identify the hazards and risks associated with bushfires and to:

1. Manage and control those hazards and risks by monitoring and maintaining areas where bushfire hazards are identified;
2. Contain any outbreak of fire related to the mine;
3. Protect surrounding properties from fire damage originating from Company–owned or controlled land.

1.3 Plan Scope

The BMP applies to Sunnyside Coal Mine, the approved transport route and project related property’s (see **Figure 2**) and covers all activities which may impact on, or influence a risk to local bushfire occurrence and/or management.

The document represents a working document to aid in decision making and provides:

- Clearly defined responsibilities;
- Potential causes of bushfires;
- Controls including fire equipment and locations;
- Emergency response (community / mine personnel);
- Emergency telephone numbers; and
- Training requirements.

2 PRIOR ASSESSMENTS

Much of the mine site has been previously cleared for agricultural activities and exhibits a low bushfire hazard. The vegetation along and adjacent to the transport route comprises a mixture of cleared areas and small patches of native woodland vegetation.

Bushfire hazard associated with the mine was assessed as part of the Environmental Assessment (EA) in 2008. The EA identified potential ignition sources at the mine and along the transport route and recommended safeguards and/or controls to limit the risk posed by these risks. Despite the inevitable increase in the number and type of ignition sources in the local area, the assessment concluded that the proposed controls and safeguards, in conjunction with general clearing activities associated with mining activities would ensure that a low bushfire hazard was maintained at the mine site and along the transport route.

3 CONSULTATION

A draft of the BMP was presented Coocooboonah Rural Fire Service (RFS) and Gunnedah Shire Council (GSC) for their comment and the final BMP incorporates comments and the requested edits of both the RFS and GSC.

Copies of the final BMP have been provided to the Coocooboonah RFS and GSC for their records.

Any amendments to the BMP (e.g. as a consequence of changes in personnel, contact details or procedures) will also be provided to the Coocooboonah RFS and GSC. An updated copy of this document will also be posted on the Whitehaven website.

4 RESPONSIBILITIES

The Manager – Mining Engineering has the overall responsibility for the management of the mine, including the responsibility for compliance with the commitments within the BMP and the Mine's Emergency Management System developed in accordance with the Coal Mine Health and Safety Act 2002.

The Manager – Mining Engineering must ensure that all the on-site safeguards and controls are in place and are effective for the prevention and control of bushfires, and that the desired environmental outcomes are achieved.

All mine personnel have responsibilities to observe and comply with the requirements of the BMP, to participate in fire training, and to observe best practice when handling flammable or hazardous materials and operating heavy machinery within the mining lease.

A Fire Officer will be appointed by the Mine Manager as required by Clause 21(2)(c) of the Coal Mines (General) Regulation 1999. The Fire Officer's responsibilities will include:

- Monitoring compliance with the Bushfire Management Plan;
- Maintenance and inspection of fire fighting equipment;
- Establishment of a fire team and their training; and
- Reporting and replacing damaged fire equipment.

The Fire Officer will report directly to the Project Manager and will be required to complete periodic reports of his/her inspections.

5 POTENTIAL CAUSES OF BUSHFIRE

The following are recognised as the principal potential causes of bushfires on the Sunnyside Coal Mine site and the transport route as a consequence of NCPL's activities.

- Fires on plant and equipment, potentially as a consequence of maintenance activities on that plant or equipment.
- Spontaneous combustion within the open cut or in stockpiled coal.
- Personnel behaviour, e.g. smoking or undertaking specific activities in inappropriate areas or without adequate controls.

NCPL also recognises that there is potential for bushfires that are unrelated to its activities and out of NCPL's control (e.g. lightning strikes).

6 CONTROLS

6.1 Introduction

NCPL is conscious of the need to ensure adequate bushfire controls are maintained to minimise the potential bushfire hazard of the mine.

The controls incorporate those controls specified in Section 15 of the Statement of Commitments (Appendix 3, PA 06_0308) and have been categorised as follows:

- Mobile equipment and mine operations.
- Fixed plant and buildings.
- Fuel and oil management.
- Mine site protocols.
- Fire fighting equipment.
- Training.

6.2 Mobile Equipment and Mine Operations

6.2.1 Earthmoving Machinery

- All earthmoving machinery will be maintained in good working order with efficient exhaust systems and spark arrestors. Regular inspections, as required by Section 103 of the *Coal Mines Regulation Act 1982*, will be carried out.
- All earthmoving machinery and mobile equipment will be fitted with appropriate sized and approved fire extinguishers suitable for the control of flammable liquid and electrical fires. Heavy equipment will be fitted with independent fire suppression systems in addition to two 80 BE rated fire extinguishers while all light vehicles will be fitted with one 80 BE rated fire extinguisher.

6.2.2 Clearing Operations

- NCPL will enforce clearing restrictions. Clearing operations will not be undertaken during periods of extreme fire danger as defined by the Bureau of Meteorology.
- The retention of cleared debris for use in the rehabilitation program will be strictly adhered to and there would be no burning of debris.
- All vehicle movements within ML 1624 will be confined to defined roads or tracks.
- Where appropriate, controlled high intensity short term grazing will be employed to assist in the reduction of vegetative fuel loads.

6.2.3 Blasting Operations

- Clear vegetation away from blast (>20m)
- Remove all coal from open cut around blast
- Undertake blast design by qualified personnel.
- All blasting operations will be carried out and confined to the face area of the mine.

- All flammable material will be removed by pre-stripping the topsoil prior to any drilling and blasting operations taking place.
- All blasting will be carried out in accordance with the Guideline as set out by the Department of Primary Industries (Mineral Resources) and Clause 25 of the *Coal Mines (Open Cut) Regulation 1999*.

6.2.4 Welding Operations

- All welding activities will, as far as practicable, be conducted and confined to the main workshop area. If in the event that welding or cutting is to be carried out outside the main workshop area, the following safeguards will be employed.
 - The area within a 20m radius will be cleared of all flammable material.
 - All oils and greases will be cleared from the work area.
 - Fire extinguishers of an 80 BE rating will be positioned within 10m of the work area.
 - A Fire Tender (see Section 6.6) will be put on stand by during the welding or cutting operations.

6.3 Fixed Plant and Buildings

- Maintenance of housekeeping by mine management.
- All workshops and offices will be installed with an approved 80 BE rated fire extinguisher. Their location will be indicated by an appropriate sign.
- Approved 80 BE rated extinguishers shall be installed and maintained at the following locations.
 - Fuel and oil storages : 2 x Extinguishers
 - Offices : 1 x Extinguishers
 - Bathhouses : 1 x Extinguishers
 - Crib Rooms : 1 x Extinguishers
 - Workshops : 2 x Extinguishers

6.4 Fuel and Oil Management

- All fuel and oil storage will be located and constructed in accordance with the requirements of the *OHS Amendment (Dangerous Goods) Act 2003*.
- Undertake refuelling within designated fuel bays or within cleared area of the mine site.
- Turn vehicles off during refuelling.

- Fuel and oil storage areas will be signposted as to the contents of the storages and will be fitted with approved 80 BE rated fire extinguishers (see Section 6.3).
- All fuel tanks on-site will be fully or self bunded to ensure that in the event of a leak or rupture, no fuel escapes from the bunded area. Each bunded area will have the capacity of at least 110% of the largest tank. Bunds may be integrated, ie. form part of the tank structure, or be external.
- Drainage from the workshop, workshop apron and wash down areas will be directed to an oil separator and containment system for subsequent pump out and disposal.
- A foam generator and an adequate supply of high expansion foam will be available on-site for fighting oil-based fires.

6.5 Mine Site Protocols

6.5.1 No Smoking Areas

- Designated “No Smoking” areas will be clearly marked and enforced onsite. These will include:
 - Fuel and oil storage areas;
 - Within areas flagged or barricaded areas in preparation for blasting;
 - When transporting explosives or within 20m of a vehicle transporting explosives;
 - Within workshops;
 - All buildings and offices; and
 - Any gas cylinder storage areas.

6.5.2 Equipment Storage

- Equipment will not be stored on uncleared ground.

6.5.3 Spontaneous Combustion

- The following measures will be adopted to minimize the potential for spontaneous combustion (as per the Spontaneous Combustion Management Plan).
 - Regularly inspect and water stockpiles
 - Control stockpile height and volume to limit the duration coal is retained in stockpiles.

- Routinely turn over coal in the ROM and product coal stockpile areas to minimise stockpile residence time.
- In longer term stockpiles, creation of a shallow stockpile batter face to the direction of the prevailing wind.
- Compaction of the stockpile area by use of mobile equipment.
- Visual inspections for evidence (visual or smell) of combustion.

6.5.4 Access

- Vehicular access will be maintained around all areas of mining-related activities.

6.5.5 Rehabilitated / Biodiversity Offset Area

- Fire prevention and fuel load reduction (if required) in rehabilitated mine areas or the biodiversity offset areas will be undertaken in accordance with the mine's Flora and Fauna Management Plan and will involve a combination of fire breaks and short periods of high intensity grazing. It is also conceivable that controlled burns may also be used in the offset areas through consultation with the Coocoooonah RFS and Gunnedah Shire Council.
- Fuel load / fire security in rehabilitated and biodiversity offset areas will be inspected at minimum 6 monthly intervals, with one such inspection occurring prior to the commencement of each bushfire season.

6.6 Fire Fighting Equipment and Protection

6.6.1 Fire Equipment

- Maintain fire extinguishers within all site vehicles.
- Provision of fire equipment on-site will be in accordance with the requirements of Clause 14 of the *Coal Mines Regulation (Fire Control – Open Cut Mines) Regulation 1984*.
- All fire extinguishers will comply with AS/NZS 1841:2007 and will be compatible with those of the Rural Fire Brigades.
- All fire equipment will be kept in a serviceable condition and be inspected at least once every 6 months by a fire equipment service provider.
- A fully equipped fire tender will be maintained on site to provide immediate response to a bushfire.

6.6.2 Fire Tender

- A fire tender will be:
 - available for use when the mine is in operation;
 - tested at least monthly for mobility and operation of the water pump;
 - properly maintained, with operators trained in the use of all equipment;
 - able to be supplied with water from operating mobile water trucks should the need arise;
 - equipped with:
 - 2 x 30m x 6mm fire hoses;
 - 2 x 30m x 35mm fire hoses to enable 2 hoses with 2 nozzles to be used simultaneously;
 - 1 x 1 to 2 breaching piece with manually operated cut-off valves;
 - 2 x branch pipes and nozzles with 12mm diameter outlets and a suitable spanner;
 - 2 x diffuser;
 - 2 x 80 BE fire extinguishers;
 - 200 litres of approved foam making compound;
 - an approved type of foam making branch applicator;
 - 1 x 60mm to 35mm adaptor.
- Additionally, the mine water truck will be fitted with a water cannon for fire fighting purposes and be kept filled.
- All fire equipment will be compatible with that of the local Rural Fire Brigades.

6.6.3 Water Supply

- Ensure water cart is available to assist in extinguishing any fire ignited.
- The water for fire fighting purposes will be sourced from the various water storages and licenced bores within ML 1624 or associated landholdings.

6.6.4 Fire Breaks

- A suitable fire break will be established and maintained around the perimeter of the mining lease and/or associated landholdings. The fire breaks will be a minimum of 6m wide and kept free of flammable material. Additional fire breaks will be maintained around the explosives magazines and flammable materials storage areas.
- Fire breaks will be inspected at a minimum of 6 monthly intervals.

6.7 Training

- All mine personnel will receive basic fire control training at the commencement of employment and regular refresher training.
- Mine fire teams will be formed and trained in accordance with coal mining legislation.
- All visitors and sub-contractors will receive basic fire training during their site induction.
- All mine personnel, visitors and sub-contractors will be advised of the nominated muster area in the case of an emergency

7 EXTERNAL ASSISTANCE

In the event that a fire cannot be controlled by the mine fire fighting teams, or threatens public property, the mine emergency procedures as defined in the Sunnyside Coal Mine Emergency System will be followed. These procedures include evacuation and notification of external emergency services.

Contact details for relevant personnel or services at or external to the mine are provided in **Appendix 2** and will be posted at all telephones on site.

8 TRAINING, PLAN REVIEW AND RECORD KEEPING

8.1 Training

As described in Section 6.7.

8.2 Plan Review

The BMP will be reviewed every two years or following any significant changes to operations, legislation or regulatory requirements. The Coocooboonah RFS and GSC will be approached to review any changes and will be provided with the updated BMP.

8.3 Records

Records of all inspections will be retained at the mine. Copies of the bi-annual inspection report will be forwarded to the Mine's Environmental Officer.

9 COMMUNITY INVOLVEMENT

NCPL management will liaise with the RFS and adjacent landowners regarding fire hazard minimisation at the mine and on associated landholdings. Additionally NCPL will, where

possible, respond to any community fire emergency situation and provide assistance by way of machines, water, equipment and labour.

10 REFERENCES

NSW Rural Fire Service (2006). *Planning for Bushfire Protection 2006.* (Available Online – www.rfs.nsw.gov.au).

Olsen Environmental Consulting Pty. Limited (2008) *Environmental Assessment for the Sunnyside Coal Project.*

Appendix 1

Project Approval (PA) 06_0308 Appendix 3 – Statement of Commitments (relevant commitment)

Desired Outcome	Action	Timing
Develop and implement a series of Management Plans to assist with appropriate control of potentially impacting activities	18.17 Bushfire Management Plan	Prior to commencing site activities.

Appendix 2

Sunnyside Coal Mine Telephone Contact Details

EMERGENCIES (Including Fires)

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PROJECT MANAGER (Michael Clarke)

Work 02 67419200

Mobile 0488 432587

ENVIRONMENTAL MANAGER (Danny Young)

Work 02 67424337

Mobile 0427 497710

OH&S MANAGER (Justin Lawrence)

Work 02 67424337

Mobile 0429 700265

SITE OFFICE

02 67419200

MANAGER MINING ENGINEER (Paul Hensley)

0418 680022

COOCOBOONAH RURAL FIRE BRIGADE (Sandy Ferguson)

02 67434797