



WERRIS CREEK COAL PTY LIMITED

ABN: 69 107 169 102

Bushfire Management Plan

for the

Werris Creek Coal Mine

JULY 2007

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3	Werris Creek Rural Fire Service	Werris Creek
4	Liverpool Plains Shire Council	Quirindi
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1.0 Scope and Objectives

1.1 Introduction

This Bushfire Management Plan has been prepared by Werris Creek Coal Pty Limited (“WCC”) in satisfaction of *Condition 64 (Schedule 4)* of the Development Consent for the Werris Creek Open Cut Coal Mine (Development Consent No. 172-7-2004). The Development Consent was signed by the Minister for the Department of Infrastructure, Planning and Natural Resources (“DIPNR”) on 01 March 2005.

The Werris Creek Open Cut Coal Mine is located approximately 4 km south of Werris Creek and 11 km north northwest of Quirindi in central northern New South Wales. (**Figure 1**).

The mine development lies within a 679 ha area covered by Mining Lease (ML) 1563 that incorporates the “Narrawolga” property and parts of the Eurunderree” and “Cintra” properties.

The mine has an expected life of about 7 years with an approved production rate up to 2 Mtpa. The approved mine-related disturbance will approximate 250 ha comprising:

1. a new access road from the Werris Creek – Quirindi road;
2. surface and workshop facilities with parking hardstands;
3. coal processing pad incorporating ROM and product stockpiles;
4. a coal haulage road from the coal processing area to the rail loading facility;
5. a rail loading bin with a stockpile area for product coal;
6. water management structures; and
7. the open cut mining area and associated out of pit dumps.

1.2 Plan Objectives

The objectives of the Plan 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 may be present;
2. contain any outbreak of fire related to the development;
3. protect surrounding properties from fire damage originating from company-owned or controlled land.

1.3 Plan Scope

This Bushfire Management Plan applies to ML 1563 and WCC's associated private landholdings and covers all activities which may impact on or influence a risk to local bushfire occurrence and/or management and includes:

1. Bushfires in the Biodiversity Offset Strategy area,
2. Fires on company owned land outside the consent area,
3. Bushfire and public safety.

Fires from mining related activities including:

1. Fires on plant and equipment,
2. Spontaneous combustion,
3. Rehabilitation and revegetation,
4. Other sources within the consent area.

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

- clearly defined responsibilities;
- potential causes of bushfires;
- controls;
- fire equipment availability;
- emergency response (community / mine personnel);
- emergency telephone numbers;
- training requirements;
- standards and auditing methods by which compliance with and effectiveness of the Plan can be measured; and
- actions to be taken for special events.

1.4 Prior Assessments

An assessment of the bushfire hazard over the mine lease area was undertaken during the preparation of the EIS for the Werris Creek Coal Mine and confirmed Council's low hazard rating for the area.

1.5 Consultation

A Draft of this Plan has been presented to the Rural Fire Service at Willow Tree and Liverpool Plains Shire Council for their comment and subsequent approval for implementation at the site.

Copies of the Final Plan which incorporate comments received on the Draft have been provided to the Werris Creek Rural Fire Service and Liverpool Plains Shire Council for their records.

Any amendments to the Plan, eg as a consequence of changes in personnel, contact details or procedures, will also be provided to the Rural Fire Service and Council.

1.6 Applicable Area

This plan applies to all land owned or controlled by WCC and includes that land within the limits of ML 1563, the area referred to by the Development Consent. **See Figure 1.**

1.7 Responsibilities

Werris Creek Coal Mining Ltd (“WCC”) is the colliery holder of the Werris Creek open cut mine. Marshalls Mining & Earthmoving contracts a Manager of Mining Engineering. The Manager of Mining Engineering prepares the rules, schemes, systems and plans required by legislation.

Marshalls Mining & Earthmoving (“MME”) is contracted by WCC to operate the mine and employs sufficient supervisors and personnel to operate the mine in a safe and efficient manner. MME has a comprehensive OH&S management system and the objective is to strive for consistency between their system and the requirements of coal mining legislation for a safe and healthy work place.

The Manager of Mining Engineering has the overall responsibility for the management of the mine, including the responsibility for compliance with the commitment within the Bushfire Management Plan and the Mine’s Fire and Emergency Management System developed in accordance with the Coal Mines Regulation Act 1982.

The WCC Site Manager and Mining Contractor’s Project Manager have the responsibility of ensuring 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 Werris Creek Coal personnel have responsibilities to observe and comply with the requirements of the Bushfire Management Plan, and to observe best practice when handling flammable or hazardous materials and operating heavy machinery within the mine 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:

- compliance with the Bushfire Management Plan;
- maintenance and inspection of fire fighting equipment is carried out by Chubb;
- reporting and replacement of damaged fire equipment.

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

1.8 Potential Causes of Bushfires

The following are recognised as the principal causes of bushfires on the mining lease as a consequence of WCC's activities:

- (i) fires on plant and equipment and/or occurring as a consequence of maintenance activities on that plant or equipment;
- (ii) spontaneous combustion within the open cut or in stockpiled coal;
- (iii) personal behaviour, eg smoking or undertaking specific activities in inappropriate areas or without adequate controls.

WCC also recognises that the potential exists for bushfires that are un-related to its activities, eg lightning strikes.

2.0 Bushfire Management Plan

2.1 Monitoring

A biannual inspection of the biodiversity offset area and land boundaries owned and controlled by Werris Creek Coal Pty Limited will be carried out by the Fire Officer at the mine.

Periodic formal or informal site inspections will be invited from the Werris Creek Bush Fire Service and Liverpool Plains Shire Council.

2.2 Controls

WCC is conscious of the need to ensure adequate bushfire controls are maintained so that its activities do not increase the potential for fires on or surrounding the Werris Creek Coal Mine.

Safeguards to be employed will include:

(i) **Earthmoving Machinery**

- All earthmoving machinery will be maintained in good working order with efficient exhaust systems and spark arrestors. Regular inspections, as required by 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. Some of the heavy machinery 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.

(ii) **Workshops and Offices**

- All workshops and offices will be installed with an approved 80:BE rated fire extinguisher. Their location will be indicated by an appropriate sign.

(iii) **Fuel and Oil Management**

- All fuel and oil storage will be located and constructed in accordance with the requirements of the Dangerous Goods Act.
- 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.
- All fuel tanks on-site will be fully or self banded to ensure that in the event of a leak or rupture, no fuel escapes from the banded area. Each banded area will have the capacity of at least 110 per cent of the largest tank. Bunds may be integrated, ie form part of the tank structure, or be external.

(iv) **No Smoking Areas**

Designated "No Smoking" areas will be clearly marked on-site. These will include:

- fuel and oil storage areas;
- within areas flagged or barricaded areas in preparation for blasting;
- within 20 m of the explosives magazines;
- when transporting explosives or within 20 m of a vehicle transporting explosives;
- within workshops;
- all buildings and offices; and
- any gas cylinder storage areas.

(v) **Fire Equipment**

- 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 1841.11:1997 will be compatible with those of the Rural Fire Service.
- All fire equipment will be kept in a serviceable condition and be inspected at Pre-start and inspected by Chubb every 6 months.
- The water truck will be maintained on-site to provide immediate response to a bushfire.

(vi) **Water Truck**

A fire tender will be:

- available for use when the open cut 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:
 - a. 2 x 80 B:E fire extinguishers;
 - b. Hose and fittings to fill Rural Fire Service Truck.

Additionally, the site 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 Rural Fire Service.

(vii) **Fixed Plant**

Approved 80 B:E rated extinguishers shall be installed and maintained at the following locations.

- Fuel and Lube Bay 2 x Extinguishers
- Offices 2 x Extinguishers
- Workshops 2 x Extinguishers

(viii) **Equipment Storage**

Equipment will not be stored on uncleared ground.

(ix) **Water Supply**

The water for fire fighting purposes will be sourced from the various water storages and licenced bores in the mining lease or WCC's landholding.

(x) **Clearing Operations**

- WCC will enforce clearing restrictions. Clearing operations will not be undertaken during periods of extreme fire danger as defined by the Bureau of Meteorology's Severe Weather Station.
- The retention of cleared debris for use in the rehabilitation programme will be strictly adhered to and there would be no burning of debris undertaken.
- All vehicle movements within the DA area 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.

(xi) **Fire Breaks**

A suitable fire break will be established and maintained around the perimeter of the mining lease and/or WCC's landholding. The fire breaks will be a minimum of 6 m wide and kept free of flammable material. Additional firebreaks will be maintained around the explosives magazines and flammable materials storage areas.

Firebreaks will be inspected at minimum 6-monthly intervals.

(xii) **Blasting Operations**

- 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 Mineral Resources and Clause 25 of the Coal Mines (Open Cut) Regulation 1999.

(xiii) **Welding Operations**

All welding activities will, as far as practicable, be conducted and confined to the workshop. If in the event that welding or cutting is to be carried out outside the workshop area, the following safeguards will be employed.

- (a) The area within a 20 m radius will be cleared of all flammable material.
- (b) All oils and greases will be cleared from the work area.
- (c) Fire extinguishers of an 80:BE rating will be positioned within 10 m of the work area.
- (d) A Fire Tender will be put on stand by during the welding or cutting operations.

(xiv) **Spontaneous Combustion**

The following measures will be adopted to minimize the potential for spontaneous combustion.

- Routinely turn over coal in the ROM and product coal stockpile areas to minimize 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.

(xv) **Access**

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

(xvi) **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 Rural Fire Service.

Fuel load / fire security in rehabilitated and bio-diversity offset areas will be inspected bi-annually with one such inspection occurring prior to the commencement of each bushfire season.

2.3 External Assistance

In the event that a fire cannot be controlled by the Mine fire fighting teams or that threatens public property, the mine emergency procedures as defined in the Werris Creek Coal Mine Fire and 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 1** and will be posted at all telephones on site.

2.4 Training

- Marshall Mining and Earthmoving will form fire teams that will be trained in accordance with coal mining legislation.
- All mine personnel, visitors and sub-contractors will be advised of the nominated muster area in the case of an emergency.

2.5 Plan Review

This Plan will be reviewed annually with any substantial amendments to procedures agreed with the Rural Fire Service and Liverpool Plains Shire Council prior to implementation.

2.6 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.

3.0 Community Involvement

WCC management will liaise with the Rural Fire Service, Werris Creek and adjacent landowners regarding fire hazard minimisation at the Mine and on WCC landholdings. Additionally WCC will, where possible, respond to any community fire emergency situation and provide assistance by way of machines, water, equipment and labour.

4.0 Figures

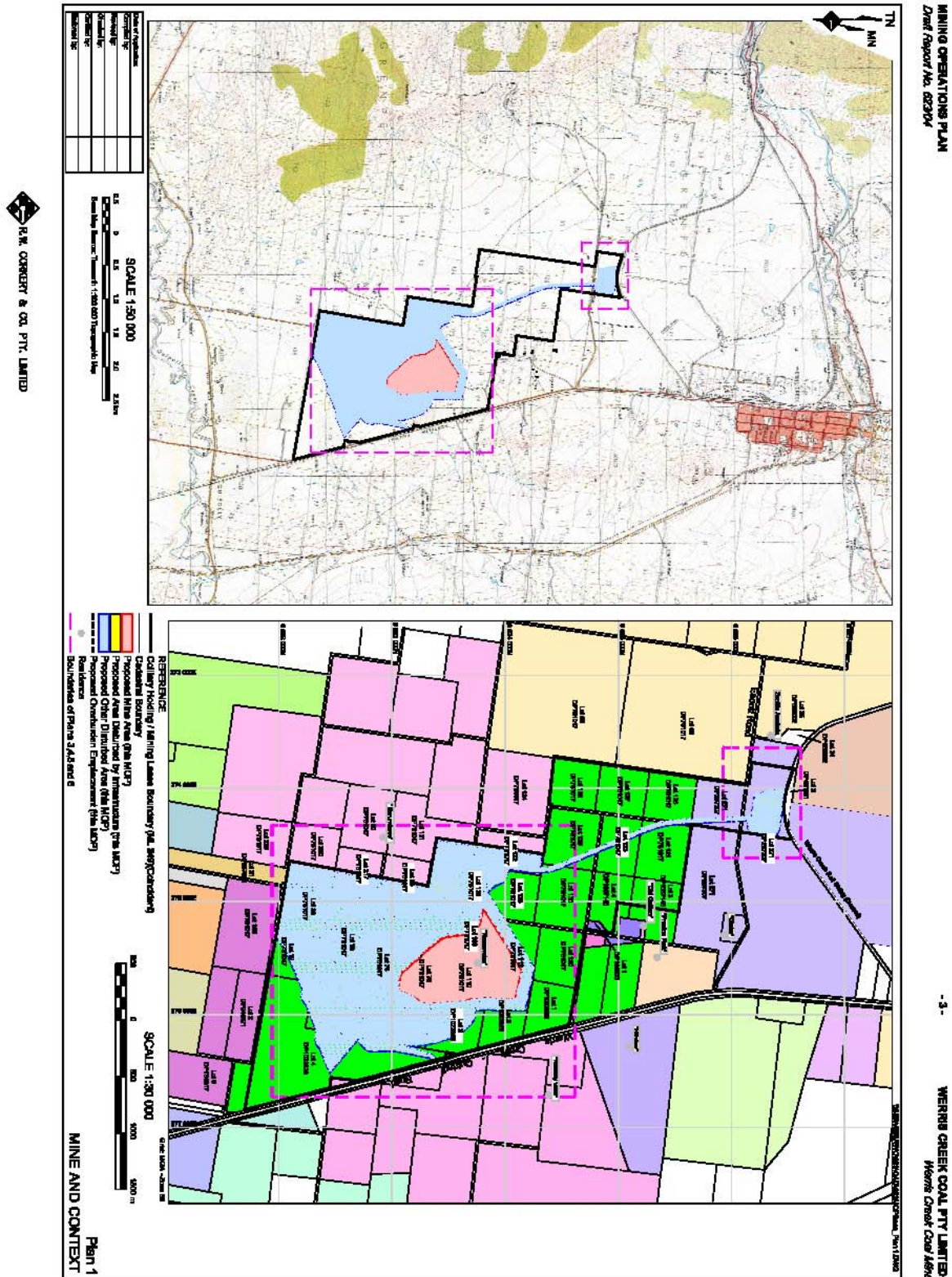


Figure 1 Location Plan

APPENDIX 1 WERRIS CREEK TELEPHONE CONTACT DETAILS

WERRIS CREEK COAL PTY LTD (WCC)			
Manager Engineering & Environment	Gordon Atkinson	Work A/H Mobile	02 67 68 7 071 02 67 623 006 0419 438 938
Coal Operations Manager	Peter Easey	Work A/H Mobile	02 67 687 071 02 67 462 371 0427 100 751
Colliery Compliance	Robert Snook	Work	02 67 687 071 0427 100 789
Electrical Engineer	Craig Tickner	Work Mobile	02 49 45 5200 0404 833 830
Mechanical Engineer	Tom Angwin	Work Mobile	02 67 68 7071 02 68 29 15 34 0429 627 885
Administration	John Hatch	Work Fax	02 67 441 399 02 67 441 151
	Graham Holley	Mobile	0427 100 711
MARSHALLS MINING & EARTHMOVING (MME)			
Project Manager	Les Latcham	Work Mobile	02 67 63 6002 0400 845 920
Manager of Mining Engineering	Paul Hensley	Work Mobile	02 67 636 001 0418 680 022
Operations Manager	Toby Bradbury	Work Mobile	02 67 63 6000 0407 766 558
MME Safety Manager	Barry Hauritz	Work Mobile	07 49 805 786 0429 983 999
Production Superintendent	Pete Beddow	Work Mobile	02 6763 60111 0429 870 082
OCE	Robert George	Work Mobile	02 67 63 6 009 0438 539 576
OCE	Peter Hadden	Work Mobile	02 67 63 6009 0448 549 721
Maintenance Superintendent	Lee Grant	Work Mobile	02 67 63 6005 0408 865 321
Office	Julia Bennett	Phone Fax	02 67 63 6000
Workshop			02 67 63 6 099
SERVICES			
Mine Surveyor	Cliff Stewart	Work A/H Mobile	02 67 422 966 02 67 422 171 0427 422 966
District Mine Inspector	Paul Hamson	Work Mobile	02 4931 6649 0407 951 244
District Check Inspector	Ronald Stothard	Work Mobile	02 4990 7600 0412 682 167
Residents Complaints Line			02 67 68 7001



Attachment 1

June 2007

Werris Creek Coal visit by the Werris Creek Rural Fire Service

Fire Captain Greg Gillies and some of members were shown around the Werris Creek Site.

1. All members of Werris Creek Rural Fire Service were inducted.
2. Shown water fill points and location of tanks.
3. Shown road and access areas.
4. Given instruction on water truck operation.
5. Given instruction on water bore pump operation.
6. Given list of contact phone numbers.
7. Shown location of Fire extinguishers and fire suppression system on vehicles and machinery.
8. Shown location of fire hoses at crushing and train loading area.
9. Instructed on Radio channel 20.
10. Given a map of Werris Creek coal operation showing water points and roads.



Attachment 2

BORE PUMP OPERATION

1. Back under filler stand pipe or connect grey hose.
2. Go to switch board – Turn Pump switch OFF
3. Turn Filler tap ON - GREEN if pumping to Standpipe
Or - RED if pumping to hose
4. T Section taps operation
TAP A - Left on all time
TAP B – Tap OFF
TAP C - Tap ON
5. Go to switch board and turn Pump switch to manual
6. When full turn pump switch to OFF
7. Turn Tap B ON and C OFF
8. Switch Board Pump switch back to Auto.



Attachment 3

WERRIS CREEK COAL WATER TRUCK – WATER TRUCK INSTRUCTION

1. Push throttle button up – button is on right hand side of steering wheel on dashboard panel.
2. Push start button at motor of pump.
3. Turn taps on at back of water truck to the hose required.
4. Turn silver air valve on dashboard near right hand side of steering wheel.
5. Turn water off – push throttle button down then turn silver air switch OFF.
6. Turn taps off at back of water truck.