



New South Wales

DEPARTMENT OF PRIMARY INDUSTRIES

File N°: 04/1677-02
INT06/28890

1 NOV 2006

The Company Secretary
Endeavour Coal Pty Ltd
C/- PO Box 514
UNANDERRA NSW 2526

Dear Sir/Madam

Re: Douglas Area 7 Subsidence Management Plan

I approve the Subsidence Management Plan as set out in your Subsidence Management Plan application for Longwalls 701-704 in your application dated September 2006 (including the "SMP Approved Plan" Drawing No. D07_0659), and supporting supplementary information provided to the Department, in accordance with s112 of the *Environmental Planning and Assessment Act 1979* subject to the exclusions and conditions set out in Appendix A, attached.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.

The conditions have been attached to mitigate the proposed activity in order to minimise environmental impacts.

Please note that this approval does not remove the requirement to obtain any necessary approvals, consents, licences or permits from any other Government Authorities.

If you require any further information, please contact Michael Lloyd, Subsidence Executive Officer, on (02) 4931 6603.

Yours faithfully

B D BUFFIER
DIRECTOR-GENERAL

Subsidence Management Plan Approval

I, the Director-General, Department of Primary Industries, having considered the likely environmental impacts of the mining operations identified in the Project Description specified in Schedule 1 and having had regard to the principles of ecologically sustainable development as defined in the *Protection of the Environment Administration Act 1991*, hereby approve the Subsidence Management Plan identified in Schedule 1 for the purposes of SMP Condition that became effective on 18/3/2004 in Consolidated Coal Lease No. 767, subject to the conditions set out in Schedule 2.

This Approval only authorises the underground mining operations identified in the Project Description for the Period identified in Schedule 1. Obligations under this Approval regarding rehabilitation, monitoring and impact management continue to apply after the expiry of this period unless otherwise notified in writing by the Director-General.

These conditions are required to:

- ensure optimal mineral resource recovery;
- prevent, minimise, manage and/or offset adverse impacts;
- provide for the ongoing environmental management of the project;
- ensure the area disturbed by mining is appropriately rehabilitated.

The rights and duties of a Leaseholder are those prescribed by the *Mining Act 1992*, subject to the terms and conditions of the Lease which include a requirement to carry out operations in accordance with the Subsidence Management Plan conditionally approved by this Approval. This Subsidence Management Plan Approval does not override any obligation on the Leaseholder to comply with the requirements of other legislation and regulatory instruments unless specifically provided in the Mining Act or other legislation or regulatory instruments.

Note: This Approval does not constitute an approval under Section 138 Coal Mines Regulation Act 1982 or clause 88 of the Coal Mines Health and Safety Regulation 2006.

SIGNED



Alan Coutts
Deputy Director-General
NSW Department of Primary Industries

Date of Approval:

1 November 2006

File No: 04/1677-02

SCHEDULE 1 Description of Approved Activity

Project Description: Douglas Area 7 Longwalls 701-704

Subsidence Management Plan: Subsidence Management Plan Douglas Area 7 Projects dated April 2006

Seam: Bulli

Approved Period of Mining: Date of Approval until 1 November 2013 or the expiry/cancellation of CCL767 (whichever occurs earlier)

SCHEDULE 2

Definitions

Activity	The proposed longwall mining described in the EIS and SMP
AEMR	Annual Environmental Management Report
Application Area	The area identified within the SMP
Bore	Any bore or well connected or proposed to be connected with sources of sub-surface water, and used or proposed to be used or capable of being used to obtain supplies of such water
Council	Wollondilly Shire Council
DEC	Department of Environment and Conservation
Department	Department of Primary Industries
Director General	Director General of the Department of Primary Industries, or delegate
District Inspector of Coal Mines	District Inspector of Coal Mines with DPI
DNR	Department of Natural Resources
DoP	Department of Planning
EIS	Environmental Impact Statement, titled <i>Environmental Impact Statement Douglas Area 7 Project</i> , volumes 1, 2A and 2B, dated April 2006
Environment	includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
IRGI	<i>Independent Review of Groundwater Impacts</i> prepared by Dr F Kalf dated 6 October 2006
IRMP	Infrastructure Risk Management Plan
Leaseholder	The leaseholder of Consolidated Coal Lease 767
Longwall mining	The extraction of the longwall panels covered by the SMP
MSB	Mine Subsidence Board
Principal Subsidence Engineer	Principal Subsidence Engineer with DPI
PSMP	Property Subsidence Management Plan
SCA	Sydney Catchment Authority
SMP	Subsidence Management Plan, titled <i>Subsidence Management Plan Douglas Area 7 Project</i> , volumes 1 and 2, dated April 2006 and supplementary supporting information provided to the Department
SMP Approved Plan	Plan No. D07_0659 titled 'Approved Plan Extraction of Longwalls 701-704, signed by the Mine Manager on 10/4/2006 and approved by the Director General, NSW Department of Primary Industries
Subsidence Impacts	Direct or indirect impacts resulting from subsidence from longwall mining
Subsidence	Movement and/or deformation of the ground surface or subsurface strata as a direct and/or indirect result of longwall mining

Conditions

Limits on Approval

- 1 The Leaseholder must carry out the activity strictly in accordance with SMP Approved Plan.
- 2 The Leaseholder must carry out the activity generally in accordance with the:
 - a) SMP; and
 - b) EIS,subject to the conditions of this Approval.

In the event of any inconsistency between the conditions of this Approval and the SMP or EIS, the conditions of this Approval prevail to the extent of any inconsistency.

- 3 Where this Approval requires actions to be undertaken by the Leaseholder, including remediation of subsidence impacts, the obligation continues until the Director General notifies the Leaseholder that the action has been completed to his or her satisfaction.
- 4 The Director General may vary the conditions of this Approval by notice in writing.

- 5 The Director General may, at his or her discretion, suspend or revoke this Approval if:
- a) the Leaseholder fails to adhere to any condition of the Approval; or
 - b) the head of any other government authority requests suspension or revocation on the basis of the Leaseholder's non-compliance, or potential non-compliance, with legislation administered by that agency related to this Approval.

General Obligation to Minimise Harm to the Environment

- 6 The Leaseholder must implement the SMP (as amended by the conditions of this Approval) and carry out any additional practicable measures (including those identified in the EIS) necessary to prevent and/or minimise any harm to the environment that may result from the construction, operation, or rehabilitation of the activity.

Implementation of Approval

- 7 Any plans, programmes, reports or strategies required as a condition of this Approval must be developed having regard to:
- a) any guidelines adopted by the Director General for the purpose of subsidence management and mine rehabilitation; and
 - b) the requirements set out in Appendix A to this Approval.

- 8 The Leaseholder must implement any plan, programme or strategy required and approved pursuant to this Approval.

Note: The Leaseholder may, at any time, submit an amended plan, programme or strategy for approval. Once approved, the amended plan, programme or strategy must be implemented, however, up until the date of approval, the Leaseholder must continue to implement the previously approved plan, programme or strategy.

- 9 Any modifications to plans, programs or strategies already approved for the purposes of the conditions of this Approval must have regard to the matters set out in condition 7. Amended plans, programmes or strategies submitted for approval must be accompanied by all relevant supporting documentation to assist in the assessment of the amendment or modification.

Note: This condition relates to plans, programmes and strategies required by the conditions of this Approval – it does not apply to variations to the SMP or the SMP Approved Plan which must be done in accordance with the requirements of the Mining Act, the conditions of title and the variation procedures identified in the SMP guidelines.

Directions

- 10 The Leaseholder must comply with any written direction given by the Director-General, Director Environmental Sustainability, Director Mine Safety Operations or Principal Subsidence Engineer relating to:
- a) the implementation of any aspect of the SMP or an approved plan, programme or strategy;
 - b) assessing or reviewing the adequacy, effectiveness, or coverage of any approved plan, programme or strategy or any aspect of the SMP;
 - c) the type, timing and/or location of monitoring of baseline conditions, subsidence or subsidence impacts;
 - d) any reporting requirement under this Approval;
 - e) the carrying out of works to address subsidence impacts; and
 - f) the carrying out of any studies or investigations related to subsidence or subsidence impacts and the reporting of any findings or conclusions.

The obligations under this condition prevail over any other obligation under this Approval.

Note: Compliance with a written direction will not operate as a defence to a breach of any obligation under this Approval that occurred prior to the Direction being given.

Subsidence Monitoring

- 11 The Leaseholder must submit to the Principal Subsidence Engineer for approval a subsidence monitoring programme for the longwall panels which are the subject of this Approval. This programme must include:
- inspection regimes;
 - layout of monitoring points;
 - parameters to be measured;
 - monitoring methods and accuracy;
 - timing and frequencies of surveys and inspections;
 - recording and reporting of monitoring results.

The Leaseholder must not commence longwall mining prior to the subsidence monitoring programme being approved.

Note: The programme should be submitted to the Principal Subsidence Engineer at least 90 days prior to the expected commencement of operations to enable sufficient time for the assessment of the programme. The Principal Subsidence Engineer may require the provision of further information to assist in the assessment of the programme or a resubmission of the programme if it is considered inadequate. Complex issues or the need for additional information or a resubmission of the programme may require a longer assessment period.

Environmental Monitoring

- 12 The Leaseholder must submit to the Director Environmental Sustainability for approval an environmental monitoring programme for the longwall panels which are the subject of this Approval. This programme must address subsidence impacts on:
- surface and groundwater (quality and quantity);
 - flora and fauna;
 - Aboriginal sites;
 - the Nepean River gorge and associated landforms; and
 - water quality (including ecotoxicology) of the Nepean River.

The Leaseholder must not commence longwall mining prior to the environmental monitoring programme being approved.

Note: The programme should be submitted to the Director Environmental Sustainability at least 90 days prior to the expected commencement of operations to enable sufficient time for the assessment of the programme. The Director Environmental Sustainability may require the provision of further information to assist in the assessment of the programme or a resubmission of the programme if it is considered inadequate. Complex issues or the need for additional information or a resubmission of the programme may require a longer assessment period.

Infrastructure and Property Management

- 13 The Leaseholder must submit to the Director Mine Safety Operations for approval management plans for any infrastructure that may be affected by subsidence. These plans must be developed in consultation with:
- the owners/operators of the infrastructure and
 - any Government Agency with a regulatory role for the infrastructure.

The Leaseholder must not commence longwall mining prior to the management plans for the following infrastructure being approved:

- Douglas Park Twin Road Bridges;
- Moreton Park Road Bridge (South); and
- Sydney Catchment Authority's Upper Canal System and associated structures that may be affected by subsidence.

The Leaseholder must not commence extraction of longwalls 702 to 704 prior to the management plans for the following infrastructure items being approved:

- a) Main Southern Railway and associated structures/infrastructure that may be affected by subsidence;
- b) Hume Highway and associated structures that may be affected by subsidence;
- c) telecommunication optical fibre cables and other telecommunication infrastructure and related structures that may be affected by subsidence;
- d) Morton Park Road and associated structures that may be affected by subsidence; and
- e) electricity transmission lines that may be affected by subsidence.

- 14 The Leaseholder must submit to the Director Mine Safety Operations for approval management plans to address the safety and serviceability of buildings and man-made structures potentially affected by subsidence. These plans must be developed in consultation with the:

- a) owner of the property; and
- b) Mine Subsidence Board.

The management plans must be based on data from:

- a) structural inspections of buildings and structures (where access is allowed) undertaken by a suitably qualified person; and
- b) a geotechnical investigation of the cliff formations and steep slopes along the Nepean River Gorge that may be affected by subsidence undertaken by a suitably qualified person.

The Leaseholder must not undertake any longwall mining that is likely to cause subsidence that may impact upon buildings or structures not owned by the Leaseholder prior to a management plan for the relevant building or structure being approved.

Note: The Property Subsidence Management Plans submitted with the SMP must be resubmitted for approval before carrying out any longwall mining that is likely to cause subsidence that may impact on the particular building or structure. The requirements set out in this condition as well as the matters required by condition 7 must be addressed in the management plans submitted for approval – this can be done either through a complete revision of the management plans or by attaching Addendums to the previously submitted plans which address the additional matters required by this Approval.

Public Safety

- 15 The Leaseholder must submit to the Director Mine Safety Operations for approval a plan to manage public safety in any surface areas that may be affected by subsidence. The Leaseholder must not commence longwall mining prior to this plan being approved.

Water Management

- 16 The Leaseholder must submit to the Director Environmental Sustainability for approval a Surface and Ground Water Response Strategy. The Surface and Ground Water Response Strategy must include:
- a) trigger levels for subsidence impacts on ground and surface water quantity and quality that require actions and responses;
 - b) the procedures that would be followed in the event that the monitoring of ground or surface water indicates an exceedance of trigger levels;
 - c) measures to mitigate, remediate and/or compensate any identified impacts;
 - d) a protocol for the notification of identified exceedances of the trigger levels; and
 - e) a contingency plan where, in the event of interruptions to water supplies (water quality and/or quantity) due to subsidence impacts on water supply systems and/or sources, the Leaseholder must provide, without delays, water supplies of equivalent quality and quantity to locations convenient to those affected until such time that the affected water supply systems and/or sources are restored.

This response strategy must be consistent with the recommendations of the IRGI and be prepared:

- a) by a qualified hydrogeologist/hydrologist; and
- b) in consultation with relevant landholders and government agencies.

The Leaseholder must not commence longwall mining prior to the Surface and Ground Water Response Strategy being approved.

Environmental Management

- 17 The Leaseholder must submit to the Director Environmental Sustainability for approval a plan for rehabilitation of the endangered River Flat Eucalypt Forest Community (Riparian Forest) likely to be affected by subsidence impacts (including Riparian Forest downstream from the application area that is indirectly affected by subsidence impacts). The plan must:
- be prepared by a suitably qualified person;
 - include baseline information on the condition of the Riparian Forest;
 - detail the procedures for rehabilitation and enhancement of the Riparian Forest; and
 - include completion criteria and a programme to monitor the effectiveness of the rehabilitation.

The Leaseholder must not commence longwall mining prior to the plan being approved.

Note: This condition does not affect the requirement to implement the environmental management strategies identified in the SMP and EIS.

Incident and Ongoing Management Reporting

- 18 The Leaseholder must, within 24 hours of becoming aware of the occurrence, notify:
- the Principal Subsidence Engineer;
 - the operators of all infrastructure covered by condition 13; and
 - any Government Agency with a regulatory role if they request such notifications,
- of the following:
- Any significant unpredicted and/or higher-than-predicted subsidence and/or abnormalities in the development of subsidence;
 - Any exceedance of predicted impacts on groundwater resources and/or the natural environment that may have been caused (whether partly or wholly) by subsidence;
 - Any observed subsidence impacts adverse to the serviceability and/or safety of infrastructure and other built structures that may be affected by longwall mining;
 - Any significant subsidence-induced cracking and/or ground deformations observed in any surface areas within the SMP application area;
 - Any observed rock falls or instability of cliff formations/steep slopes along the Nepean River Gorge that may have been caused (whether partly or wholly) by subsidence.

Note: Under Condition 10, the Leaseholder can be directed to, among other things, prepare a report on an incident reported under this condition. A report on the details of the incident, including likely or known causes, response action and proposed response measures will generally be required for incidents that involve material property or environmental damage or have the potential to cause such damage.

- 19 The Leaseholder must prepare and maintain a Subsidence Management Status Report which must include but not be limited to:
- the current face position of the longwall panel being extracted;
 - a summary of any subsidence management actions undertaken by the Leaseholder in the period subsequent to the last regular submission of the Status Report;
 - a summary of any comments, advice and feedback from consultation with stakeholders in relation to the implementation of this Approval (including the preparation, implementation and review of plans, programmes, reports or strategies required by this approval) undertaken or received in the period subsequent to the last regular submission of the Status Report and a summary of the Leaseholder's response to the comments, advice and feedback given by the stakeholders;
 - a summary of the observed and/or reported subsidence impacts, incidents, service difficulties, community complaints, and any other relevant information reported to the Leaseholder in the period subsequent to the last regular submission of the Status Report and a summary of the Leaseholder's response to these impacts, incidents, service difficulties and complaints;
 - a summary of subsidence development based on monitoring information compared with any defined triggers and/or the predicted subsidence to facilitate early detection of potential subsidence impacts;

- f) a summary of the adequacy, quality and effectiveness of the implemented management processes based on the monitoring and consultation information summarised above, and
- g) a statement regarding any additional and/or outstanding management actions to be undertaken or the need for early responses or emergency procedures to ensure adequate management of any potential subsidence impacts due to longwall mining.

The Subsidence Management Status Report must be updated at least every 14 days to reflect any changes in the information required to be included in the Report. The Status Report must be regularly submitted to the Principal Subsidence Engineer and each operator of infrastructure referred to in condition 13 every four (4) months from the commencement of extraction. The Status Report (as updated from time to time) must be provided, upon request, to the Mine Subsidence Board, the Director of Environmental Sustainability, the Principal Subsidence Engineer of the Department of Primary Industries, owners/operators of any infrastructure within the application area and any other Government Agency with a regulatory role if they request such notifications.

End of Panel Report

- 20 Within 4 months of the completion of each longwall panel, an end of panel report must be prepared to the satisfaction of the Director Environmental Sustainability. The end of panel report must:
 - a) include a summary of the subsidence and environmental monitoring results for the applicable longwall panel;
 - b) include an analysis of these monitoring results against the relevant;
 - impact assessment criteria;
 - monitoring results from previous panels; and
 - predictions in the SMP and EIS;
 - c) identify any trends in the monitoring results over the life of the activity; and
 - d) describe what actions were taken to ensure adequate management of any potential subsidence impacts due to longwall mining.

Independent Environmental Audit

- 21 If directed by the Director Environmental Sustainability, the Leaseholder must commission and pay the full cost of an Independent Environmental Audit of the activity. This audit must:
 - a) be conducted by a suitably qualified, experienced, and independent person/s whose appointment has been endorsed by the Director Environmental Sustainability;
 - b) have the scope developed in consultation with the relevant agencies and agreed to by the Director Environmental Sustainability;
 - c) assess the environmental performance of the activity, and its effects on the surrounding environment, particularly with respect to the Nepean River;
 - d) assess whether the activity is complying with the relevant standards, performance measures and statutory requirements including compliance with this approval;
 - e) review the SMP and any strategy/plan/programme required under this Approval; and, if necessary,
 - f) recommend measures or actions to improve the environmental performance of the activity, and/or the SMP and other strategy/plan/programme required under this Approval.

Note: It is the role of the reporting and auditing required under this Approval to inform the Leaseholder, the Department and other stakeholders of the effectiveness of the implementation of the terms of this Approval. The Leaseholder is expected to be proactive in identifying areas where impacts from the longwall mining can be better managed and implement necessary measures and, where necessary, amend any approved plans, programmes or strategies to ensure that this is achieved. Condition 4 of the Approval permits the Director General to amend the terms of this approval at any time. This power will generally only be exercised where the terms of this Approval and/or the carrying out of this project is causing impacts that the Department considers to be unreasonable. The Department or other Government agencies may consider other enforcement action if environmental impacts caused by the longwall mining which is the subject of this Approval is in breach of legislative requirements – proactive action by the Leaseholder will be taken into consideration when considering any enforcement action.

Access to Information

- 22 Within 3 months of the submission of an End of Panel Report (as required by Condition 20) or Independent Environmental Audit (as required by condition 21) or the approval of a plan, programme or strategy required under this Approval or the SMP (or any subsequent revision of these documents), the Leaseholder must, to the satisfaction of the Director General:
- a) provide a copy of these document/s to all relevant agencies;
 - b) ensure that a copy of the relevant documents is made publicly available at the Leaseholder's regional office; and
 - c) put a copy of the relevant document/s on the Leaseholder's website.

Survey Marks

- 23 At the completion of subsidence, or otherwise as required by the Department of Lands, the functionality of any survey marks affected by subsidence must be fully restored to the satisfaction of the Department of Lands.
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APPENDIX A

Additional Requirements for plans, programmes and strategies

Note: These requirements are additional to those identified in the guidelines and specific conditions of Approval which require the preparation of the plans

Condition 13 Infrastructure Management Plans

Ongoing Consultation with owners/operators and government agencies
Review Schedule
Contingency Plans to address deviations from predicted subsidence impacts.

Condition 14 Property Management Plans

Ongoing Consultation with owners/operators and government agencies
Review Schedule
Contingency Plans to address deviations from predicted subsidence impacts.

Condition 15 Public Safety Management Plans

Ongoing Consultation with authorities and stakeholders responsible for management of surface areas accessible by public
Review Schedule
Contingency Plans to address deviations from predicted subsidence impacts.

Condition 16 Water Management Plan

Ongoing Consultation with landholders and government agencies
Review Schedule
Contingency Plans to address deviations from predicted subsidence impacts.

Condition 17 Riparian Forests Management Plan

Ongoing Consultation with landholders and government agencies
Review Schedule
Contingency Plans to address deviations from predicted subsidence impacts.
