# THE METROPOLITAN COAL PROJECT

Information Handout - June 2008



### BACKGROUND

Metropolitan Colliery is an underground coal mining operation located near Helensburgh, approximately 30 kilometres north of Wollongong in NSW. Metropolitan Colliery is owned and operated by Helensburgh Coal Pty Ltd (HCPL), a wholly owned subsidiary of Peabody Pacific Pty Limited.

Metropolitan Colliery is one of the longest running coal mining operations in Australia and has an operational workforce of some 320 staff and on-site contractors. Metropolitan Colliery enjoys a positive relationship with the local community and contributes significantly to business turnover, household income and employment in the local region, as well as contributing to state and federal government revenues.

The underground mining operations are supported by Metropolitan Colliery's surface facilities. The major surface facilities of Metropolitan Colliery are situated off Parkes Street in Helensburgh (see Figure I on back page).

Metropolitan Colliery currently produces up to approximately 1.5 Million tonnes per annum (Mtpa) of hard coking and semi-hard coking product coal. The majority of product coal is transported by train to the Port Kembla Coal Terminal to domestic and overseas customers. A proportion of the product coal is also transported by truck to the Corrimal and Coalcliff Coke Works for domestic use.

## THE METROPOLITAN COAL PROJECT

The Metropolitan Coal Project (the Project) would involve the continuation of underground mining operations at Metropolitan Colliery. The area of proposed underground mining is situated to the north of the current longwall mining areas (see Figure I on back page). The Project would extend the life of Metropolitan Colliery by approximately 25 years.

Significant components of the Project include the following:

- Continued development of underground mining areas.
- Increased saleable coal production (from 1.5 Mtpa to approximately 2.8 Mtpa).
- Continued transport of product coal by train to the Port Kembla Coal Terminal and by truck to the Corrimal and Coalcliff Coke Works.
- The Coal Handling and Preparation Plant and associated surface facilities would be upgraded as necessary.
- Continued transport of coal reject material to the Glenlee Washery and on-site underground injection of coal reject material within mined out areas.

- Supporting infrastructure systems (e.g. ventilation, gas management, water management and underground mining systems) would be upgraded and extended as required.
- The operational workforce (i.e. staff and on-site contractors) is expected to remain stable at 320 people.
- An additional short-term construction workforce of up to 50 people is anticipated.

### THE APPROVAL PROCESS

Approval for the Project will be sought under Part 3A of the *Environmental Planning and Assessment Act, 1979* (EP&A Act). In accordance with Section 75D(I) of the EP&A Act, the NSW Minister for Planning is the approval authority for the Project.

It is anticipated that the Project Approval would consolidate and replace existing approvals for Metropolitan Colliery.

### **CURRENT STATUS AND TIMING**

HCPL has submitted a Project Application (including a Project Description and Preliminary Assessment Report) to the NSW Department of Planning (DoP). These documents will be made publicly available on the DoP website.

An Environmental Assessment document will be prepared for the Project which will include relevant environmental baseline and impact assessment studies to address the Director-General's Environmental Assessment Requirements for the Project. The Environmental Assessment is currently scheduled for submission by mid 2008. Current planning is targeting Project Approval by early 2009.



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### SURFACE WATER ASSESSMENT

(Gilbert & Associates and Dr Walter Boughton)

A comprehensive analysis of the Sydney Catchment Authority (SCA)'s stream flow data and data from Woronora Reservoir demonstrates that mining has not had an effect on the quantity of water flowing to the reservoir. There has not been any loss of water from the reservoir or its catchment as a result of mine subsidence.

The effect of subsidence on the streams is largely aesthetic. Shallow cracking (typically less than 15m deep) in the stream alignment due to subsidence results in a portion of the stream flow travelling through the rocks in the stream bed. This water re-surfaces immediately downstream of the cracks and flows into the reservoir. During periods of dry weather, this can result in sections of the stream having noticeably less flow and pools drying-up at a faster rate than occurs naturally. These effects are more evident during periods of drought, as was observed in recent years.

Restoration of the aesthetic values of the stream can be undertaken by in-filling the cracks with special grout materials. If this is undertaken at pools, the stream appearance returns to that similar to prior to mining. In-filling of cracks also occurs naturally on a progressive basis as stream sediments and vegetation material travel down the stream and deposit in the cracks.

As the water travels through the cracks in the stream bed it also collects minerals such as iron, and to a lesser extent manganese and aluminium. This effect on water quality is relatively localised and temporary in nature and does not affect the quality of water in the reservoir.

Extensive surface water monitoring is undertaken during the mining process to facilitate adaptive management.

### **GROUNDWATER ASSESSMENT**

(Dr Noel Merrick)

Analysis of groundwater data indicates that there are three separate groundwater systems:

- Perched Groundwater System typically less than 20m below the ground surface.
- Shallow Groundwater System typically less than 100m below the ground surface.
- Deep Groundwater System typically more than 100m below the ground surface.

These three groundwater systems are considered to be disconnected or separated with very little effective groundwater flow between them. This finding is supported by analysis undertaken by the SCA of the groundwater conditions in the region and is driven by the presence of layers of very low permeability claystone and sandstone materials.

The coal seam that is extracted during underground coal mining is located more than 380m below the ground surface in the Deep Groundwater System. The underground mining has no material effect on the Shallow Groundwater System or the Perched Groundwater System. This means that there is:

- no mechanism by which the proposed underground mining would affect surface water flows;
- no loss of groundwater flow to the Woronora Reservoir; and
- no effect to vegetation or swamps as a result of groundwater pressure change in the Deep Groundwater System.

Groundwater monitoring is undertaken during the mining process to facilitate adaptive management.





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### **ECOLOGICAL ASSESSMENTS**

HCPL has commissioned the following highly qualified specialists to undertake ecological surveys and assessments for the Project, including:

- Terrestrial Fauna Western Research Institute (Dr David Goldney) and Biosphere Environmental Consultants (Dr Arthur White).
- Terrestrial Flora FloraSearch (Dr Colin Bower) and Bangalay Botanical Services.
- Aquatic Ecology Bio-Analysis (Dr Dan Roberts).

In addition to a comprehensive set of existing available information, numerous field surveys have been conducted to collect additional baseline information on the flora and fauna of the area.

Field surveys and assessments indicate that threatened species, populations, ecological communities or their habitats would not be significantly impacted by the Project. Subsidence effects on riparian vegetation are expected to be minor and limited in extent and no material changes to upland swamp vegetation is expected. The effects on fauna populations would be relatively minor and/or not result in a significant impact as a result of the Project. Effects on aquatic ecology and habitat would be similar to those observed at Metropolitan Colliery to date with some modification (particularly during prolonged dry periods).

### ABORIGINAL CULTURAL HERITAGE ASSESSMENT

HCPL has commissioned Kayandel Archaeological Services and Ben Gunn (Rock Art expert) to undertake an Aboriginal Cultural Heritage Assessment for the Project.

Comprehensive surveys of the Woronora Plateau have been undertaken over the past 37 years including field surveys in 2007 specifically for the Project. Aboriginal heritage sites have been recorded within the Project area with a range of characteristics and archaeological significance.

Extensive consultation has been undertaken with the Aboriginal community throughout the assessment process in regard to the cultural significance of Aboriginal heritage sites and the Project area (see Figure 1 on back page). Minimal subsidence impacts to Aboriginal sites are predicted as part of the Project, based on observed impacts to date and the results of subsidence modelling.

Surface infrastructure will be designed to avoid direct impacts to Aboriginal heritage sites.

An Aboriginal Cultural Heritage Management Plan will be developed in consultation with the Aboriginal community and the Department of Environment and Climate Change to guide management of Aboriginal cultural heritage at the Metropolitan Colliery. The Aboriginal Cultural Heritage Management Plan will also describe various measures (including detailed recording, monitoring and mitigation) for the ongoing management of Aboriginal cultural heritage at the Metropolitan Colliery.

### **SUMMARY OF OTHER KEY ISSUES**

Assessment of other key issues such as air quality, noise emissions and transport will be included in the next handout.





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### HOW TO OBTAIN MORE INFORMATION

If you would like to know more about the Project, a copy of the Project Application - including the Project Description and Preliminary Assessment Report will be made publicly available on the DoP website (http://www.planning.nsw.gov.au) under "Major Project Assessments – Register of Major Projects".

You can also contact Rod Hailstone (Environment and Community Manager) at Metropolitan Colliery for more information regarding the Project (02 4294 7222).



Location of the Proposed Underground Mining Area and Surface Facilities **Figure I** 

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