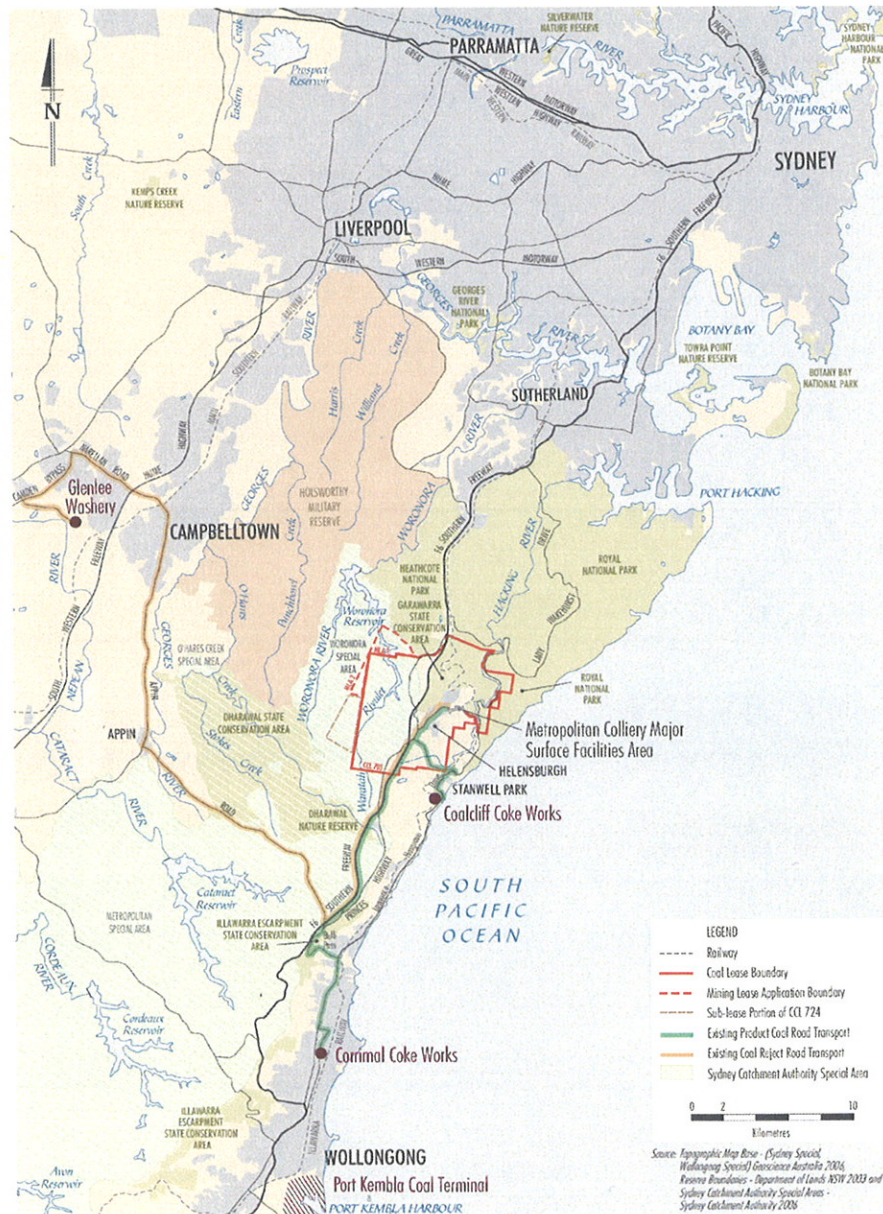


# ASSESSMENT REPORT

## Metropolitan Coal Mine Project Approval Modification (08\_0149 MOD 1)

### 1 BACKGROUND

Helensburgh Coal Pty Ltd (HCPL), a wholly owned subsidiary of Peabody Pacific Pty Ltd, owns and operates the Metropolitan Coal Mine, which is located approximately 30 kilometres (km) north of Wollongong on the Woronora Plateau (see Figure 1).



**Figure 1: Regional Context**



The Metropolitan Coal Mine was approved by the Minister for Planning on 22 June 2009. The approval allows:

- extraction of up to 3.2 million tonnes per annum (Mtpa) of run-of-mine (ROM) coal from the Bulli Coal Seam for a period of 23 years using longwall mining methods;
- processing of ROM coal at the surface facilities at Helensburgh;
- transportation of product coal by road and rail to markets;
- emplacement of coal reject into the underground mine or trucking it to the Glenlee Washery;
- extension and upgrading of existing surface facilities; and
- rehabilitation of the site.

HCPL is currently upgrading its surface facilities at Helensburgh in accordance with the Minister's approval. However, recent engineering studies have shown that upgrading the existing underground mining drift (i.e. inclined access tunnel) and associated mains conveyor system would be technically difficult, and there would be a high risk of coal production disruptions due to potential construction-related incidents.

Consequently, HCPL is now seeking to modify the project approval for the Metropolitan Coal Mine to allow the construction of a replacement underground drift in close proximity to the approved drift (see Figure 2).



**Figure 2: Existing and proposed surface facilities**

## 2 PROPOSED MODIFICATION

On 15 June 2010, HCPL lodged an application to modify the project approval for the Metropolitan Coal Mine under section 75W of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The proposed modification involves:

- construction of a replacement 2.7 km underground drift to access the underground workings;
- construction of a new electrical substation;
- demolition of 2 existing buildings;
- clearing of 0.6 hectares (ha) of woodland;
- decommissioning of the existing underground drift; and
- disposal of excess waste rock from the drift:
  - as part of the construction of the approved surface facilities;
  - in the underground mine workings using the approved paste plant; and/or
  - offsite at the Glenlee Washery

Construction of the underground drift would occur 24 hours a day, and would take approximately 2.5 years to complete. Construction of the drift would be undertaken simultaneously with the construction of other approved surface facilities at the site, and would require an additional construction workforce of approximately 30 people compared to the workforce outlined in the original Environmental Assessment (EA) for the project.

The proposed modification would not increase the capital investment value (CIV) of the approved project, as upgrades to the existing drift would not be required. The capital cost of the proposed new drift would not be higher than the cost of upgrading the existing drift as originally approved.

### 3 STATUTORY CONTEXT

The Minister was the approval authority for the original project application, and is consequently the approval authority for this modification application.

However, on 25 January 2010, the Minister delegated his powers and functions as an approval authority to modify certain project approvals under section 75W of the EP&A Act to the Director, Mining and Industry Projects. This modification application meets the requirements of this delegation, and therefore the Director may determine the application under delegated authority.

The Department is satisfied that the proposed modification represents a relatively minor change to the approved project, and should therefore be characterised as a modification to the original approval rather than a new development proposal in its own right. Consequently, the Department is satisfied that the proposed modification may be determined under section 75W of the EP&A Act.

### 4 CONSULTATION

The Department is not required to notify or exhibit applications under section 75W of the EP&A Act. Nonetheless, the Department referred the application to the Department of Environment, Climate Change and Water (DECCW); NSW Office of Water (NOW); and Industry and Investment NSW (I&I NSW) for comment.

A summary of the submissions is provided in Table 1.

**Table 1: Summary of Submissions**

Agency	Issues Raised
Department of Environment, Climate Change and Water (DECCW)	<ul style="list-style-type: none"> <li>Noted that no threatened flora species, populations or communities were identified and that vegetation is highly modified by historical mining activities.</li> <li>Recommended seeking confirmation that proposed construction works and proposed substation would comply with noise conditions of original approval.</li> <li>Raised concerns about removal of the excess waste drift rock offsite.</li> </ul>
NSW Office of Water (NOW)	<ul style="list-style-type: none"> <li>Advised that water supply to the modification would be governed by the <i>Water Sharing Plan for the Greater Metropolitan Water Sources 2010</i>, and must be accounted for under that plan's rules. Capture of surface runoff must also comply with criteria under this plan.</li> <li>Considered that the proposed replacement drift will not require a separate licence approval under the <i>Water Management Act 2000</i>.</li> </ul>
Industry and Investment NSW (I&I NSW)	<ul style="list-style-type: none"> <li>Raised concerns about removal of excess waste drift rock., and recommended HCPL be required to maximise the beneficial use of waste rock onsite, and minimise offsite disposal.</li> <li>Recommended that the condition relating to the preparation of a rehabilitation strategy be modified for consistency with I&amp;I NSW's forthcoming Rehabilitation and Environmental Management Plan (REMP) requirements.</li> <li>Noted that I&amp;I NSW will undertake a security review for the Metropolitan Coal Mine as part of the forthcoming REMP process.</li> </ul>

HCPL has provided responses to the issues raised in submissions. The Department has considered the issues raised, and HCPL's response to these issues, in its assessment of the proposed modification.

## **5 ASSESSMENT**

The Department has assessed the proposed modification and believes there are 2 key environmental issues requiring detailed consideration, namely the management of waste rock from the drift, and the noise impacts associated with the construction of the drift.

### **5.1 Waste Rock Management**

Over the 30 months of proposed drift construction, HCPL estimates that 7,300 tonnes (t) of waste rock would be produced per month (with an approximate total of 220,000 t). HCPL proposes a number of methods for dealing with this waste rock. The first (and preferred) option would be to use the waste rock for onsite construction. The existing surface facilities are being upgraded in accordance with the original approval and these works require construction fill. HCPL has estimated that 90,000 t of the total would be used for this purpose.

There are two further options for dealing with the remaining 130,000 t. The first is to emplace it underground via the approved (but yet to be constructed) paste plant and associated underground paste injection system. The paste plant and injection system are components of the existing approval and trials of the system are already underway. The remaining option is to transport the waste rock offsite, using existing approved trucking limits for transporting coal reject to the Glenlee Washery for reject emplacement. HCPL has indicated that offsite trucking of coal reject will not be reaching maximum approved levels due to the advanced implementation of the paste plant and the time needed before the mine reaches its maximum approved production. Therefore, trucking of the remaining waste rock to Glenlee would not increase total truck movements above existing approved levels. In essence, under this option, approved truck movements would be transporting waste rock offsite instead of coal reject.

However, while the Department accepts that there would be no increase in the approved level of impacts if waste rock is trucked offsite to Glenlee, the Department believes that it is preferable to reduce offsite heavy vehicle movements by prioritising use of the waste rock on the site or in the underground workings. Nonetheless, the Department also acknowledges that it may be preferable from an environmental perspective to dispose of clean fill from the drift, rather than coal rejects, at the Glenlee Washery.

Overall, the Department is satisfied that HCPL's proposal to use a combination of the utilisation of waste rock for construction onsite, emplacement of waste rock underground via the paste plant and offsite transport to Glenlee is an appropriate way of disposing of waste rock from drift construction and that it is unlikely to lead to any significant additional adverse impacts.

### **5.2 Noise Impacts**

Construction of the drift would involve a number of additional noise sources, including:

- additional heavy vehicles;
- temporary ventilation fans;
- disposal of waste drift rock;
- a new electrical substation; and
- temporary diesel generators.

The EA for the proposed modification includes a noise impact assessment (NIA) which outlines construction noise impacts. The NIA compares noise level predictions against noise level objectives set in the existing approval and concludes that any additional impacts over the 30 month construction period would be minor. The assessment is predicted to increase day-time noise levels by 1.2 dB(A), but evening and night-time noise levels would effectively remain unchanged.

DECCW and the Department consider this increase to be minor and acceptable, and generally consistent with the levels predicted in the original EA. The Department is also satisfied the proposed modification would not compromise or delay the mine's ability to meet its targeted noise reductions, which are to be implemented by 2014.

### 5.3 Other Issues

The Department's assessment of other potential environmental impacts is summarised in the table below. All other issues have been considered to have negligible environmental impacts over and above that assessed and approved, and do not warrant further assessment.

**Table 2: - Assessment of other issues**

<b>ISSUE</b>	<b>POTENTIAL IMPACT AND CONSIDERATION</b>	<b>CONCLUSION</b>
<i>Traffic</i>	<ul style="list-style-type: none"> <li>The proposal would require a workforce of approximately 48 people, working rotating shifts, with not all employees being present onsite at any one time. In combination with other approved surface facilities upgrades, this would result in an increase in the maximum number of construction employees from 50 to approximately 80.</li> <li>Metropolitan is located on the fringe of Helensburgh township and is accessed off Parkes Street, which is a main road in Helensburgh. Without any traffic management measures, the extra workforce numbers would result in some increase in light traffic to the site.</li> <li>To limit light vehicle traffic through Helensburgh, HCPL proposes to encourage operational and construction workers to car-pool. HCPL is also seeking approval from Wollongong City Council for the establishment of a new transfer facility at an off-site parking facility on the outskirts of Helensburgh. This would involve using mini-buses to shuttle workforce and non-urgent deliveries to the mine.</li> <li>The Department has recommended that the Traffic Management Plan required under the original approval reflect the proposed implementation of car-pooling and shuttling.</li> <li>The Department has also recommended that the road safety audit required under the original approval take into account the increased light traffic volumes from the proposed modification.</li> <li>The Department is satisfied that there would be minimal traffic impacts, provided that car-pooling and shuttling are implemented in accordance with HCPL's commitment to the Department.</li> </ul>	<ul style="list-style-type: none"> <li>No additional control measures required.</li> </ul>
<i>Flora &amp; Fauna</i>	<ul style="list-style-type: none"> <li>The proposal involves clearing three small areas of vegetation (approximately 0.6 ha) for the portal footprint, the ROM conveyor and an access track for on-site transport.</li> <li>The EA includes a flora inspection of these areas conducted by FloraSearch in May 2010. It also references flora and fauna surveys undertaken in 2008 for the original EA. No listed threatened flora species, populations or communities were identified in these areas.</li> <li>The three clearance areas have a Moist Blue Gum – Blackbutt Forest vegetation community. However, the current vegetation is in poor condition and is highly modified by historical mining activities. The EA considered it highly unlikely that the clearing would have any significant impact on fauna.</li> <li>The Department is satisfied that potential impacts on flora and fauna would be minimal, given the small area of vegetation clearance and the degraded nature of the current vegetation, and does not consider that any additional biodiversity offsets are required.</li> </ul>	<ul style="list-style-type: none"> <li>No additional control measures required.</li> </ul>
<i>Non-Aboriginal Heritage</i>	<ul style="list-style-type: none"> <li>The Metropolitan Coal Mine is listed in the Wollongong LEP as a site of regional heritage significance. There is a Conservation Management Plan (CMP) in place that provides policies and strategies to be used during the detailed design, construction and operational phases of the Metropolitan Coal Mine.</li> <li>The proposal would involve the demolition of 2 existing buildings, but they are not assessed as being of heritage significance.</li> <li>The proposed electrical substation would be located in the garden at the mine manager's residence, which is a surviving aspect of the mine that contributes to the overall heritage significance.</li> <li>The Department considers that the potential impacts to non-Aboriginal heritage are not significant and can be effectively managed in accordance with the CMP and the existing conditions of the approval.</li> </ul>	<ul style="list-style-type: none"> <li>No additional control measures required.</li> </ul>
<i>Aboriginal Heritage</i>	<ul style="list-style-type: none"> <li>This area has previously been surveyed for Aboriginal cultural heritage in 2008. A supplementary archaeological inspection of the three disturbance areas is included in the EA (undertaken in 2010). No Aboriginal artefacts or culturally modified scars on mature trees were identified in these areas.</li> </ul>	<ul style="list-style-type: none"> <li>No additional control measures required.</li> </ul>



ISSUE	POTENTIAL IMPACT AND CONSIDERATION	CONCLUSION
Groundwater	<ul style="list-style-type: none"> <li>The proposal involves the construction of a new drift, however there would be no change to the approved longwall mining operations.</li> <li>The EA includes a groundwater review and also references the groundwater assessment undertaken in 2008. There are 3 groundwater systems associated with the mining area, however Metropolitan is considered a "dry mine", which means it experiences minimal groundwater seepage in comparison to most underground mines.</li> <li>The Department is satisfied that there would be a negligible difference in groundwater effects as a result of this proposal as there are no proposed changes to the longwall mining operations.</li> </ul>	<ul style="list-style-type: none"> <li>No additional control measures required.</li> </ul>
Air Quality	<ul style="list-style-type: none"> <li>There are a number of residences in close proximity to the existing surface facilities area that are exposed to dust emissions.</li> <li>The EA includes an air quality review undertaken in 2010. It also references the assessment undertaken in 2008 for the original EA. Existing air quality monitoring indicates that the mine is compliant with all DECCW criteria, and generally below the required targets.</li> <li>Various dust management techniques are utilised at the mine, such as watering of unsealed roads and conveyors, enclosure of crushing processes and washing of trucks. The Department considers that the proposed modification works would not significantly alter dust emissions if appropriate dust minimisation techniques are maintained.</li> </ul>	<ul style="list-style-type: none"> <li>No additional control measures required.</li> </ul>

## 6 RECOMMENDED CONDITIONS

The Department has drafted recommended administrative conditions requiring the proposed modification to be implemented generally in accordance with the EA and the other commitments made by HCPL. HCPL has reviewed and accepted these conditions.

## 7 CONCLUSION


The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act, including the objects of the Act and the principles of ecologically sustainable development.

The Department is satisfied that the proposed modification would not result in any significant additional impacts when compared with the project as originally approved, and would allow HCPL to realise the social and economic benefits of the project without unnecessary disruption. Consequently, the Department is satisfied that it is in the public interest and should be approved.

## 8 RECOMMENDATION

It is RECOMMENDED that the Director, as delegate of the Minister:

- **consider** the findings and recommendations of this report;
- **determine** that the proposed modification falls within the scope of section 75W of the EP&A Act;
- **approve** the application under section 75W, subject to conditions; and
- **sign** the notice of modification (see Tag A).

  
 Howard Reed  
 Manager  
 Mining Projects

3-9-10

  
 David Kitto  
 Director  
 Mining and Industry Projects