


# Notice of Staged Development Approval

I, the Minister for Planning, under the provisions of the development consent referred to in Schedule 1, approve the staged development set out in Schedule 2, subject to the conditions set out in Schedule 3.



**Frank Sartor MP**  
Minister for Planning

Sydney

25th Dec

2006

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## SCHEDULE 1

Condition 1.1(c) of the development consent granted by the Minister for Urban Affairs and Planning on 20 November 2001 for the development of the Dendrobium Coal Mine and the construction and operation of associated surface facilities (DA 60-03-2001).

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## SCHEDULE 2

The construction, operation, management and rehabilitation of Stage 3 of the West Cliff Coal Wash Emplacement Area, located at West Cliff Colliery.

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## SCHEDULE 3

1. The Applicant shall carry out the staged development generally in accordance with the following documents:
  - a) conditions of consent DA 60-03-2001;
  - b) Application for Further Approval of West Cliff Emplacement Area Stage 3, Vol 2 (including Appendices), prepared by Cardno Forbes Rigby for BHP Billiton Illawarra Coal Holdings Pty Limited and dated July 2007;
  - c) West Cliff Stage 3 Coal Wash Emplacement Response to Submissions, prepared by BHP Billiton Illawarra Coal Holdings Pty Limited and dated 1 November 2007;
  - d) West Cliff Stage 3 Coal Wash Emplacement Statement of Commitments, prepared by BHP Billiton Illawarra Coal Holdings Pty Limited and dated 28 November 2007 (see Appendix 1); and
  - e) conditions of this approval.
2. If there is any inconsistency between the above documents, the latter document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.

### Pollution Reduction Program

3. The Applicant shall, by 30 June 2008, develop with the Department of Environment and Climate Change (DECC) a new Pollution Reduction Program (PRP) to be incorporated into the West Cliff Colliery Environment Protection Licence. Subject to the satisfaction of DECC, the PRP shall:
  - a) include investigation, trial and implementation of appropriate strategies, technologies or works to achieve agreed water quality discharge criteria for licensed discharges from the West Cliff Colliery site with particular reference to salinity; and
  - b) cover a period of not less than five years.

### Water Quality Monitoring Program

4. The Applicant shall, by 30 June 2008, review its water quality monitoring program for the West Cliff Mine in consultation with DECC, the Department of Water and Energy (DWE), and the member of the Dendrobium Independent Expert Review Panel (IERP) with expertise in aquatic ecology and water quality.

*Note: As at the date of this approval, the member of the Dendrobium IERP with that expertise is Assoc Professor Ron West.*

**Brennans Creek Diversion Bypass Rehabilitation Plan**

5. The Applicant shall, by 30 June 2009, develop a Brennans Creek Diversion Bypass Rehabilitation Plan to the satisfaction of the Director-General and in consultation with DECC, DWE, the Department of Primary Industries (Mineral Resources), and the member of the Dendrobium IERP with expertise in aquatic ecology and water quality.

*Note: As at the date of this approval, the member of the Dendrobium IERP with that expertise is Assoc Professor Ron West.*

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APPENDIX 1  
WEST CLIFF STAGE 3 COAL WASH EMPLACEMENT  
STATEMENT OF COMMITMENTS

**Illawarra Coal - Carbon Steel Materials**



28 November 2007

Department of Planning  
Major Development Assessments  
Mining and Extractive Industries  
(Attention: Howard Reed)  
GPO Box 39  
SYDNEY NSW 2001

Illawarra Coal Holdings Pty Ltd  
BHP Billiton Illawarra Coal Administration Centre  
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Dear Sir

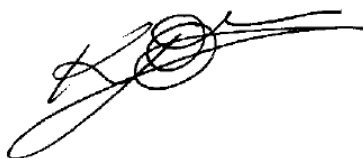
**West Cliff Stage 3 Coal Wash Emplacement  
Statement of Commitments**

As requested by the Department of Planning on 28 November 2007, Illawarra Coal has prepared a Statement of Commitments for the Stage 3 Coal Wash Emplacement at West Cliff. The Statement of Commitments is provided in Attachment A.

The Statement of Commitments is consistent with the Application for Further Approval of West Cliff Emplacement Stage 3 (Volumes 1-4) made to the Department on 18 July 2007 and our response to submissions dated 1 November 2007 made to the Department by government agencies and the community during the exhibition period.

If you have any queries on this matter please contact Bruce Blunden on 42553312.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Keith Grimson', with a stylized flourish extending from the end.

**Keith Grimson**  
General Manager – Processing & Logistics

Illawarra Coal Holdings Pty Ltd  
ABN 69 093 857 286

A member of the BHP Billiton Group which is headquartered in Australia  
Registered Office: 180 Lonsdale Street Melbourne Victoria 3000 Australia  
ABN 49 004 028 077  
Registered in Australia

## **Attachment A**

### **Statement of Commitments West Cliff Stage 3 Coal Wash Emplacement**

#### **Coal Wash Alternatives**

- (a) Prepare an implement an End of Resource coal wash strategy within 5 years of the issue of the Stage 3 emplacement approval issue date. The strategy should be reviewed every three years from the date of the State 3 emplacement approval. The strategy should be provided to the Department of Planning (DoP), Department of Environment and Climate Change (DECC) and Department of Primary Industries – Minerals (DPIM).
- (b) Give priority to the development and implementation of coal wash management solutions and strategies that maximise the beneficial use of coal wash and offer long term, large volume and sustainable opportunities.
- (c) Maximise the reuse of coal wash as fill in development sites. Reusing should be carried out in a safe, practical and commercially effective way.
- (d) Report the volume of coal wash reuse and the annual progress on the development of coal wash management solutions to the Government via the West Cliff Colliery Annual Environment Management Report (AEMR), submitted to DPI and copied to the DoP and DECC.

#### **Stage 3 Emplacement**

- (e) The West Cliff Stage 3 Emplacement and associated infrastructure will be entirely contained within the footprint shown in Figure 1.
- (f) The management and operation of the Stage 3 emplacement will be undertaken in accordance with the Emplacement Management Plan as amended from time to time in light of current best practice.

#### **Vegetation and Fauna**

- (g) No more than 60.5 ha of native vegetation will be cleared for the West Cliff Stage 3 emplacement.
- (h) The management of vegetation and fauna at the West Cliff site (including the Stage 3 coal wash emplacement ) will be undertaken in accordance with the Vegetation and Fauna Management Plan as amended from time to time in light of current best practice.
- (i) The Vegetation and Fauna Management Plan will be implemented to achieve the following performance indicators and targets.

Performance Indicator	Performance Target	Proposed Monitoring Methods
Weed management	<ul style="list-style-type: none"> <li>Zone 1; Low levels of weed infestation in soil translocation compartments.</li> <li>Zone 2; A reduction in weed cover of perennial exotic grasses on disturbed edges.</li> <li>Zone 3; Weed free condition maintained.</li> <li>Eradication of noxious and serious environmental weeds from the colliery. Focus particularly on <i>Cortaderia selloana</i> and <i>Juncus acutus</i>.</li> </ul>	<ul style="list-style-type: none"> <li>Control methods used and justification</li> <li>Species treated and rates of herbicide application</li> <li>Weed density/condition of bushland mapping</li> <li>Inspections targeting noxious weeds</li> </ul>
Success of Emplacement Area Rehabilitation (Zone1)	<ul style="list-style-type: none"> <li>Adequate regeneration of translocated communities, Exposed Sandstone Scribbly Gum Woodland and Sandstone Gully Peppermint Forest. Regeneration to reflect composition and structure of the two communities.</li> <li>Condition; no more than 20 per cent weed cover in translocated compartments after 2 years.</li> <li>15 per cent accepted plant losses over 2 years. Additional losses to be replaced by tubestock.</li> <li>50 per cent vegetative cover of compartments achieved after 2 years.</li> <li>The degree to which fauna, threatened or otherwise, use the rehabilitated emplacement area including constructed habitats and nest boxes.</li> </ul>	<ul style="list-style-type: none"> <li>Permanent photographic points within translocated compartments.</li> <li>Monitoring vegetation quadrats in translocated patches measuring species richness, structure and composition, condition, death rates and replacement requirements, growth rates of key indicator species.</li> <li>Control sites to be set up in remnants.</li> <li>Random meanders for threatened flora that may have regenerated from translocation.</li> <li>Site assessments. Condition of bushland mapping.</li> <li>An assessment of areas regenerated per unit effort. A comparison of the environmental outcome to the type and size of the input.</li> <li>Soil testing (materials characterisation where revegetation fails).</li> <li>A BHPBIC staff member qualified and experienced in natural area restoration to project manage monitoring system.</li> </ul>
Site stabilisation	<ul style="list-style-type: none"> <li>Success of translocation as per the above targets.</li> <li>Stabilisation of sediment and erosion control measures.</li> </ul>	<ul style="list-style-type: none"> <li>Regular self audit and inspections including photographs of structures and the Emplacement benching, especially post storm flows.</li> </ul>
Protection of Threatened Flora	<ul style="list-style-type: none"> <li>Loss of threatened plants (<i>Persoonia hirsuta</i>, <i>Acacia bynoeana</i> and <i>Pultenaea aristata</i>) restricted to those identified in area described by Figure 1.</li> </ul>	<ul style="list-style-type: none"> <li>Inspections of on-site exclusion zones to ensure protection of remnant populations.</li> <li>Inspections and assessment of translocated <i>Persoonia hirsuta</i> (if required)</li> </ul>
Protection of Threatened Fauna Habitats	<ul style="list-style-type: none"> <li>No additional losses or loss of potential habitat outside the area described by Figure 1.</li> </ul>	<ul style="list-style-type: none"> <li>Annual habitat level surveys.</li> </ul>
Phytophthora infection	<ul style="list-style-type: none"> <li>Prevention of the introduction of Phytophthora</li> <li>Identification of Phytophthora infection</li> <li>If detected, development and implementation of a Phytophthora infection control plan</li> </ul>	<ul style="list-style-type: none"> <li>Annual soil sampling in vegetation within proximity to on site traffic (track, drainage and roadside edges) and areas of previous disturbance. If detected, further sampling from areas within the stage 3 footprint pre-construction and post construction will be undertaken.</li> </ul>
Bushfire	<ul style="list-style-type: none"> <li>The entire West Cliff mine lease currently operates under a fire exclusion policy. This policy will continue.</li> <li>Boundary and internal fire trails and other suppression advantages will be maintained.</li> <li>A hot work permit system will be</li> </ul>	<ul style="list-style-type: none"> <li>Reporting by exception on the extent and intensity of unplanned bushfire.</li> </ul>

Performance Indicator	Performance Target	Proposed Monitoring Methods
	<ul style="list-style-type: none"> <li>maintained on the site.</li> <li>The Rural Fire Service will be offered regular orientations of the lease site.</li> <li>West Cliff Colliery is not currently subject to a hazard reduction burn regime and hazard reduction burns are not planned for the site. Any future bushfire management will consider fire regimes that are appropriate to ecological requirements (including management of threatened species and their habitats) of the site. Any proposed hazard reduction activities will only be undertaken in consultation with all relevant stakeholders.</li> </ul>	
Reporting	<ul style="list-style-type: none"> <li>Annual Report to be supplied to regulatory authorities addressing outcomes of the project to date in relation to the above performance targets.</li> </ul>	<ul style="list-style-type: none"> <li>Reporting of project to regulatory authorities.</li> <li>Annual review of monitoring system and management methods.</li> <li>Adjustments made to systems and methods as required.</li> <li>Pro formas.</li> </ul>

- (j) Emplacement clearing and rehabilitation actions will take place in the following manner as specified in the Vegetation and Fauna Management Plan.

### **Vegetation clearing**

#### Pre-clearing actions

- Flagging area to be cleared and habitat features to be preserved or redistributed

#### Two staged vegetation clearing

- Clearing of sub-canopy vegetation first to allow fauna opportunity to move
- Relocation of any fauna species encountered during the initial clearing of non-habitat trees
- Removal of habitat trees the next day
- Relocation of any remaining fauna prior to and during clearing of habitat trees

#### Habitat reinstatement

- Transplanting dead stags
- Addition of habitat logs and woody debris
- Nest box use and installation
- Reconstruction of rocky outcrops
- Maintenance and monitoring

### **Rehabilitation**

#### Pre-translocation actions

- Identify clearing compartments
- Timing of vegetation clearing
- Collection and storage of seed
- Identification and preparation of recipient sites

#### Soil salvage and handling

- Vegetation clearing and stockpiling
- Stripping of soil in relevant horizons
- Soil and rock stockpiling

#### Soil replacement

- Respreading soil horizons
- Redistribution of rocks, logs, cleared/stockpiled vegetation and habitat features on recipient sites
- Sediment and erosion control

#### Revegetation supplementary to soil translocation

- Direct seeding of previously collected seed
- Weed control (where necessary)

(k) The Broad headed Snake Management Plan will be implemented in three key stages including:

- Relocation of Broad headed snakes during the pre-clearing period, preferably during the winter season;
- Progressive two-stage clearing and habitat translocation;
- Monitoring and maintenance during the post-clearing period

#### Water

(l) All stormwater runoff storage and treatment systems will be designed to cater for a 1:10 year ARI 72 hour duration rainfall event.

(m) All emplacement stormwater runoff will be captured and treated in a *two pond in series* treatment system. The first pond will provide passive settling and the second pond chemically assisted settling. An automated chemical dosing system will be installed and operated between the first and second pond.

(Note: During the last phase of emplacement, there will be only one stormwater treatment pond available. The area of the active emplacement will be minimised during this phase.)

(n) Clean water will be separated from dirty water to minimise dirty water volumes that must be captured and treated.

(o) The Brennans Creek diversion channel will be designed and constructed to cater for a 1:100 year ARI 2 hour duration storm event.

(p) The Brennans Creek diversion channel will be rehabilitated to incorporate; riffles, pools, bedslope, channel roughness, floodplain pockets and riparian vegetation that approximate as close as possible the characteristics of Brennans Creek.

(q) Illawarra Coal will negotiate a Pollution Reduction Program (PRP) with the Environment Protection Authority that will be incorporated into the West Cliff Colliery Environment Protection Licence to investigate, trial and implement appropriate strategies, technologies or works to achieve an agreed water quality discharge criteria from Brennans Creek Dam over an agreed time period.

#### Final landform

(r) The emplacement final landform will be contoured to form a stable landform that is sympathetic to the surrounding landscape.

### Dust

- (s) The emission of dust generated at the emplacement will be minimised by the use of water spray cart.

### Compensatory measure

- (t) Illawarra Coal will transfer ownership of 153.4 ha of land at Bulli Tops to the Minister for the Environment and Climate Change for gazettal under the National Parks and Wildlife Act and/or the Sydney Water Catchment Management Act. This commitment also includes:
- funding the transfer costs to transfer land title from Illawarra Coal to the NSW Government;
  - funding the agreed scope of site improvement works

### Aboriginal cultural heritage

- (u) Aboriginal cultural heritage site impacted by the Stage 3 Coal Wash Emplacement will be restricted to:

Site	Impact
BC2 (Shelter with Art)	Destroyed by Emplacement landform
BC5 (Axe Gr. Groove)	Destroyed by Emplacement landform
BC6 (Shelter with Art)	Destroyed by Emplacement landform
WC4 (Shelter with Art)	Destroyed by Emplacement landform
BCPAD4	Destroyed by Emplacement landform
BCPAD5	Destroyed by Emplacement landform
BC7 (Shelter with Art)	Indirect via Landscape context – low potential for damage
D11 (Shelter with Artefacts)	Indirect via Landscape context – low potential for damage

(Note: relevant s87/90 consents under the National Parks and Wildlife Act will be sought for the Aboriginal cultural heritage site impacted by the Stage 3 Coal Wash Emplacement)

- (v) An Aboriginal Cultural Heritage Management Plan will be developed and implemented in consultation with relevant Aboriginal stakeholders for all sites located at West Cliff.
- (w) Illawarra Coal will enter into an agreed Aboriginal Community Enhancement Program with the Tharawal Local Aboriginal Land Council.

### Community consultation

- (x) Illawarra Coal will continue to operate an office in a local Shopping Precinct to enable the community easy access to information and Illawarra Coal staff
- (y) Illawarra Coal will continue to operate the 24-hour contact telephone line.



