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Shaping the Future

bhpbilliton ILLAWARRA COAL

PRELIMINARY ENVIRONMENTAL ASSESSMENT
West Cliff Coal Preparation Plant Raw Coal Circuit and Reliability Improvement Project

November 2008

Cardno Forbes Rigby Reference 109010-01 Report 001 Rev 0

CARDNO FORBES RIGBY PTY LTD

Preliminary Environmental Assessment

West Cliff Coal Preparation Plant Raw Coal Circuit and Reliability Improvement Project

Report 001 Rev 0

Final Report
November 2008

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EXECUTIVE SUMMARY

BHP Billiton Illawarra Coal (BHPBIC) own and operate West Cliff Coal Preparation Plant (CPP), which is located approximately 4km south of Appin. The CPP processes run of mine coal from two of BHPBIC's Collieries, West Cliff and Appin.

The overall coal supply chain must reliably operate to process the output from the mines to allow BHPBIC to meet customer demands. BHPBIC has reviewed the coal supply chain and identified that the reliability of the CPP requires addressing to ensure it can consistently process the required amount of coal.

If BHPBIC do not address the CPP reliability, the coal from Appin and West Cliff Collieries will have to be stockpiled to wait processing. This slows the coal supply chain and adds inefficiencies into the system, which has negative environmental impacts as additional machinery, electricity, and diesel consumption is required. Not progressing with reliability improvements will affect customers, employees, the environment and the economy.

The main objective of this project is to ensure the reliability of the CPP. To achieve this BHPBIC have reviewed four options. These are:

1. *Upgrade the existing CPP through replacement and addition of equipment*
2. *Implement an additional stand-alone CPP close to the existing CPP*
3. *Upgrade the BHPBIC Dendrobium CPP at BlueScope Steel industrial precinct*
4. *Take no action and rely on the existing West Cliff CPP to operate without failure.*

BHPBIC wish to progress option 1 as this makes best use of existing equipment whilst only proposing new reliability improvements at the existing CPP. This minimises site coverage and impact on the natural environment, by using existing site environmental protection measures.

Initial discussions with the Department of Planning (DoP) indicate that the proposal is characterised as a Major Project and assessment under Part 3A of the Environmental Planning & Assessment Act (EPAA) 1979 is appropriate. This is because DoP have directed that all works at a mine will be progressed under Part 3A even if they are small in scale and impact.

This Preliminary Environmental Assessment (PEA) describes the proposal, identifies benefits and reviews the applicable regulatory framework. The PEA also identifies consultation stakeholders and proposes engagement of the Appin residential community through an existing working group.

This PEA reviews the potential environmental impacts of the project and identifies areas that require further assessment. This PEA splits these impacts into key and secondary, based on the expected intensity of impact.

Key environmental impacts are:

- ***Surface Water** – impacts will be controlled and mitigated by existing systems*
- ***Air Quality** – minimal impact due to dust suppression systems.*
- ***Noise** - will be generated by the new equipment but impacts minimal due to distance from sensitive receivers*
- ***Waste** – impacts will be controlled and mitigated by existing systems*
- ***Greenhouse Gas Emissions** – will be minimal from the proposed works.*

Secondary environmental impacts are:

- *Ecology*
- *Heritage*
- *Visual*
- *Contamination*
- *Utilities.*

This PEA identifies required assessments of key and secondary impacts that will form part of the following Environmental Assessment (EA). Additionally, it identifies existing West Cliff Colliery environmental protection measures or processes that are likely to control impacts.

This PEA concludes that the reliability improvements are required to assist in meeting customer requirements and implementation of the proposed option is likely with minimal environmental impact.

BHPBIC are preparing an application under Part 3A of the EPAA 1979 for ongoing mining operations at West Cliff Colliery. As this will include works at the CPP BHPBIC are comfortable that the approval of works described in this PEA will be superseded by a Part 3A application that covers the West Cliff Colliery Surface Facilities

The information provided in this PEA should allow DoP to prepare and release the Director Generals Requirements for the proposal, such that a full EA can be prepared.

1. INTRODUCTION

This section describes the background to the proposal and the reason for change.

1.1. BACKGROUND

BHP Billiton Illawarra Coal Pty Ltd (BHPBIC) currently operates West Cliff Coal Preparation Plant (CPP), which is the subject of this proposal. West Cliff CPP is located off Wedderburn Road approximately 3.8km south of Appin. This is within Wollondilly Shire local government area (refer **Figure 1**).

BHPBIC carry out underground mining activities at West Cliff & Appin Collieries. These collieries and the ancillary coal supply chain provide a significant economic contribution within the Illawarra and MacArthur Regions.

The West Cliff CPP processes coal mined from both West Cliff & Appin collieries. Once processing is complete, the coal is loaded on trucks for transportation to Port Kembla Coal Terminal (PKCT), BlueScope Steel or other local customers.

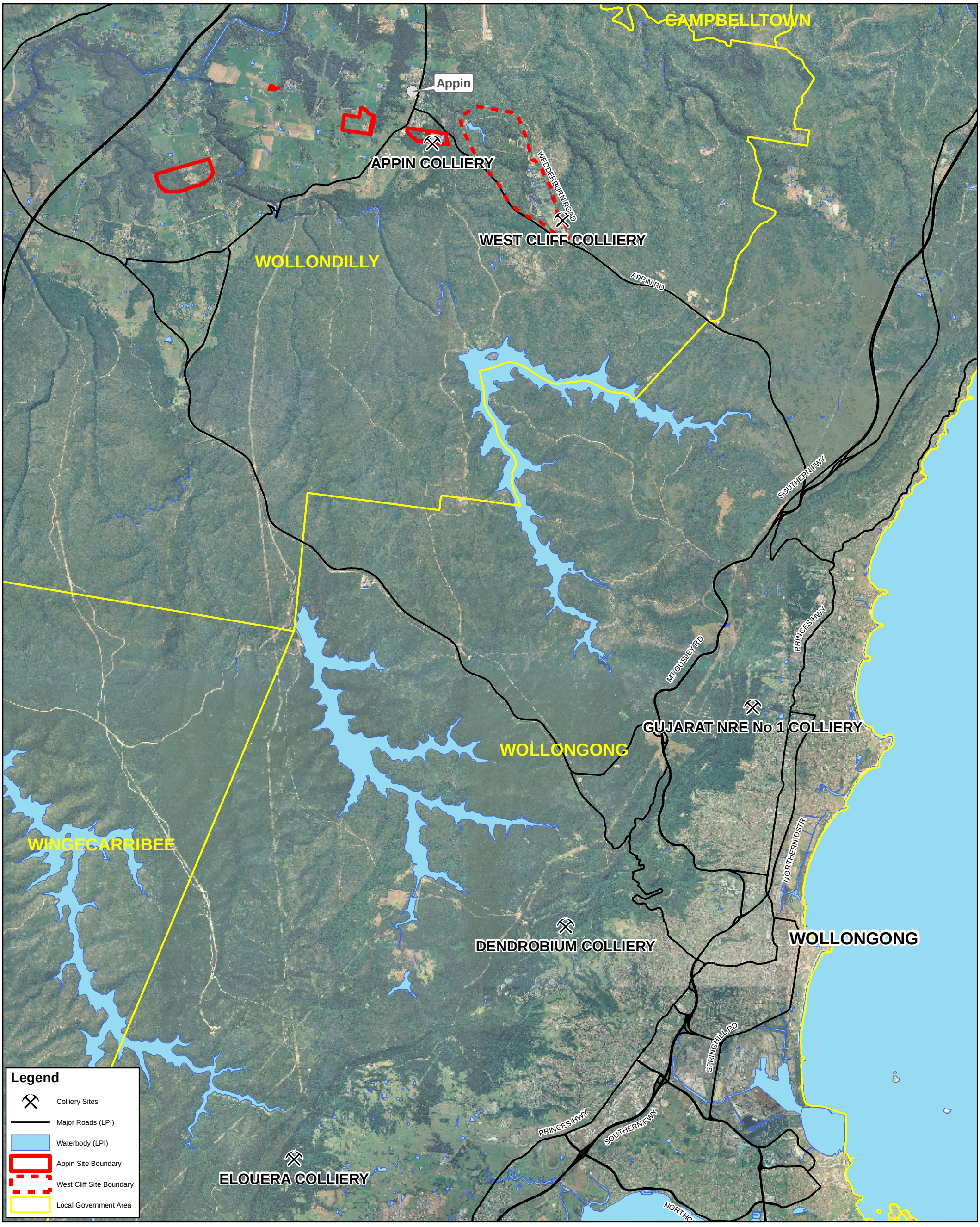
BHPBIC propose to update the CPP with current technology to ensure it remains able to process reliably the output from the two collieries. The new equipment is to be located in an extension to the southern end and the western side of the existing CPP building. Additional new equipment will be located within the existing CPP area as part of this project.

BHPBIC have commissioned Cardno Forbes Rigby (Cardno) to prepare this Preliminary Environmental Assessment (PEA) in relation to the proposed CPP project.

1.2. JUSTIFICATION FOR THE PROPOSED EXTENSION

The upgrade of the CPP is justified for the following reasons:

1. The CPP will be able to process reliably existing output from Appin & West Cliff Collieries
2. It will allow BHPBIB to meet customer demand for coal from the West Cliff and Appin Collieries
3. The existing CPP is located within a significantly disturbed area, further development in this area is preferable to the implementation of a new CPP elsewhere
4. The new technology will extend the operational lifespan of the CPP
5. The project has sound financial justification, as the new equipment will replace existing machinery that has a higher potential for failure resulting in lost processing time.



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Location of Appin & West Cliff Collieries

Figure 1

N W E S

Scale 1:100,000 (at A3)

Kilometres 0 2 4

Cardno Forbes Rigby

Map Produced by Cardno Forbes Rigby
Date: 19 September 2008
Coordinate System: Zone 56 MGA/GDA 94
GIS MAP REF:
109010_01_1805_CollieryLocation.mxd

1.3. DEVELOPMENT OPTIONS

BHPBIC reviewed four options in relation to increasing processing throughput capability. A description of these is below.

1.3.1. Improve the reliability of the existing West Cliff CPP

This is the selected option. This PEA discusses this option and the subsequent EA will provide a full assessment of relevant impacts.

1.3.2. Implement a new CPP at West Cliff Colliery

This option involves the construction of a stand-alone CPP to complement the existing CPP. It would be approximately half the size of the existing CPP and provide the reliability to meet the output of West Cliff and Appin Collieries.

The construction of a stand-alone CPP would enable coal processing to continue whilst the existing CPP is shut down for maintenance or repairs. This would improve the coal processing system by allowing increased reliability for processing of coal.

This option is not progressing because:

- There will be significantly less environmental impact by improving the reliability of the existing CPP as a much smaller area of land will be disturbed
- The construction of a new CPP incorporates aspects that duplicate parts of the existing CPP. This work would result in significant expense in the establishment of infrastructure that would not be required in Option 1.

1.3.3. Upgrade Dendrobium CPP

BHPBIC own Dendrobium CPP. This is located within the BlueScope Steel industrial precinct. It is on land owned by BlueScope Steel Pty. Ltd. and enclosed by heavy industrial developments. This CPP is named as such because it processes coal from BHPBIC's Dendrobium mine. This CPP is not a suitable choice to provide the additional required capacity because:

- It is already operating near full capacity and there is no physical space for expansion.
- The proposal would result in additional truck movements on public roads through the transport of unprocessed coal, referred to as run-of-mine (ROM) coal, to the Dendrobium CPP and additional transportation of Coal Wash to West Cliff Emplacement area.

1.3.4. Take No Action

A discussion of this option is in **Section 1.4**.

1.4. CONSEQUENCES OF NOT PROCEEDING

If reliability improvements are not implemented, BHPBIC's customers demand for coal are less likely to be met, as the mined coal would not always be able to be processed to meet requirements. This may have flow on detrimental impacts for the NSW economy as customers may source coal from other coalfields.

Not improving the reliability of the CPP will also detrimentally impact on mining operations at Appin and West Cliff Collieries, by bottlenecking the coal supply chain. If the coal cannot be processed at a similar rate as the mines output, it will have to be stored on stockpiles. This introduces inefficiencies into the system.

1.5. ANTICIPATED TIMING

BHPBIC aim to implement the project at the earliest opportunity to ensure the coal supply chain is not impacted by the ability to process coal. **Table 4.1** shows the programme of works and proposed indicative timing:

Table 1.1 – Anticipated Timing of the Part 3A Application

Stage		Due Date
1.	Prepare Preliminary Environmental Assessment	October 2008
2.	Submission PEA to Department of Planning	Start November 2008
3.	Director General's Requirements	End November 2008
4.	Submission of Environmental Assessment to DoP for Adequacy Review	End December 2008
5.	Public Exhibition and Agency Consultation	End January 2008
6.	Completion of DoP assessment	Middle March 2008
7.	Minister's Decision	Mid April 2008

1.6. STRUCTURE OF THIS REPORT

The report structure is as follows:

- **Section 2** – reviews planning policies relating to the proposed development
- **Section 3** – details consultation carried out and responses received
- **Section 4** – explains the CPP operations and describes the proposed upgrade
- **Section 5** – assesses environmental impacts and proposed protection measures
- **Section 6** – reviews construction safety
- **Section 7** – concludes the PEA
- **Section 8** – lists the references used in the preparation of this report.

2. REGULATORY FRAMEWORK

This section outlines the current regulatory framework within which BHPBIC operate and the relevant policies that the EA proposes to address.

2.1. SUGGESTED PLANNING APPROACH

Initial contact with DoP has confirmed their agreement to the Part 3A application, consequently on receipt of this PEA the Minister will be requested to confirm the development is a 'Major Project' under SEPP (Major Projects) 2005. Following receipt of the Director General's Requirements, the Environmental Assessment will be lodged and the Minister will assume the responsibility of the consent authority.

2.2. FEDERAL GUIDANCE & CONTROLS

The Environmental Assessment will assess relevant Federal legal controls. The following policy will be addressed:

- **Environment Protection & Biodiversity Conservation Act 1999** – the EA will show that the proposal will not have any impact on a location or species listed under this act.

2.3. STATE & STRATEGIC PLANNING CONTROLS

The EA will assess relevant state planning controls and strategic planning guidance. This will include a review of the following polices:

- **Environmental Planning & Assessment Act 1979** – as discussed above this proposal is applicable for determination under Part 3A of this Act. This PEA and the subsequent EA will be prepared in accordance with this legislation.
- **Mining Act 1992** – currently, regulation of activities at West Cliff Colliery is via approvals and titles granted under the Mining Act 1992. These titles provide the control mechanism for government by stipulating operating and environmental conditions. The EA will demonstrate how the proposed development is in accordance with activities permitted by the Mining Act 1992.
- **Protection of Environment Operation Act 1997** – the site complies with an Environmental Protection Licence (EPL 2504). The EA will explain how the proposed project will comply with the existing EPL for West Cliff Colliery.
- **Threatened Species Conservation Act 1995 & National Parks & Wildlife Act 1974** – the EA will explain why assessments under these acts are not required due to the minor nature of the proposal and no impact on the ecological environment or cultural heritage.
- **State Environmental Planning Policy (Major Projects) 2005** – this SEPP guides the type of developments to which Part 3A of the EP&A Act is applicable. As discussed DoP consider the proposal to be characterised as a 'Major Project' as it relates to mining activities.
- **State Environmental Planning Policy (Mining, Petroleum, Production & Extractive Industries) 2007** – this is not expected to influence the proposed CPP upgrade, however as the proposal is ancillary to mining activities this SEPP will be addressed.

- **Illawarra Regional Environment Plan No. 1** – Due to the minor nature of the development, this policy will have minor impact.
- **Illawarra Regional Strategy** – states the NSW Government's strategy on the future directions of the Illawarra. This focuses on economic strength of the region and a strong mining industry is a main aspect of a strong economy.

2.4. LOCAL PLANNING CONTROLS

West Cliff Colliery is zoned 1 (a1) (Rural A1 Zone) under the Wollondilly Local Environmental Plan 1991 (refer **Figure 2**). The primary objective of this rural zone is to protect land for agricultural uses, prevent inappropriate, premature and sporadic subdivisions which may prevent planned urban growth and protect the scenic quality and rural character. Mining works are permissible with DA consent within this zone.

Wollondilly Shire Council only has one Development Control Plan (DCP), which has any association with the proposed development:

- **DCP 36 Development in Rural Areas** – the EA will show that where applicable the CPP upgrade will comply with the requirements of this DCP.

Legend

West Cliff Site Boundary
Appin Site Boundary
Lake / Dam (LPI)
Roads (LPI)

Wollondilly LEP (1991)

1(a) 2(a) 2(d) 3(a) 4(a) 4(c) 5(c1) 6(a) 6(b) 7(a) 7(b) 7(c) 7(d) 7(e) 8(a) 9(a) Arterial

FINNS ROAD
CARROLLS ROAD
HUME HIGHWAY
MORETON PARK ROAD
CAMDEN ROAD
PRICES ROAD
JENKINS STREET
NEPEAN STREET
MACQUARIEDALE ROAD
BRIAN ROAD
LYSAGHTS ROAD
CYCLEWAY
DREDGE AVENUE
ELLADALE ROAD
KING STREET
TOGGERAI STREET
WILTON ROAD
DOUGLAS PARK DRIVE
ASHWOOD ROAD
ALMOND STREET
PEEL STREET
APPIN ROAD
FIRE ROAD NO 13
LISA CLOSE
MACARTHUR DRIVE
PICTON ROAD
FIRE ROAD NO 11B
FIRE ROAD NO 12
FIRE ROAD NO 8

Land Zoning

West Cliff and Appin Collieries
FIGURE 2

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N W E S

Scale 1:50,000 (at A3)

Metres
0 500 1,000 1,500

Map Produced by Cardno Forbes Rigby
Date: 6 November 2008
Coordinate System: Zone 56 MGA/GDA 94
GIS MAP REF:
109010-01_1806_Land_Zoning_p1.mxd

3. CONSULTATION

This section describes the existing consultation as part of this PEA and considers required consultation as part of the EA.

3.1. STATUTORY

BHPBIC has consulted with DoP officers prior to the submission of this PEA. Due to the minor nature of the proposal, contact has not been made with any other Government departments at this early stage of the Part 3A application. Limited consultation will be required due to the minor scale of the proposal. Stakeholders will be determined with DoP prior to Director General Requirements being issued and BHPBIC propose to contact these stakeholders and report all comments to DoP to expedite the determination of this application.

Initial consultation with DECC will be required to discuss the proposed CPP Reliability Project and compliance with the West Cliff Colliery EPL. Liaison with Government will continue as required throughout the project, to discuss and confirm requirements, source information and to discuss outcomes of environmental assessments.

The following stakeholders will be consulted during the preparation of the application:

- Department of Planning
- Department of Environment and Climate Change
- Wollondilly Shire Council
- Appin Area Community Working Group.

3.2. COMMUNITY

The proposed development has no impact on residential communities. This is because the proposal is entirely within the West Cliff Coal Preparation Plant site operated by BHPBIC, and the proposed CPP project is located over 4km from the nearest residential property which is located at Appin.

Due to this, community consultation is unlikely to be necessary. However, BHPBIC will notify the Appin Area Community through normal liaison with the Working Group. The EA will assess any community comments received.

4. EXISTING & PROPOSED DEVELOPMENT

This section describes the existing development associated with this application and the proposed development.

4.1. EXISTING COAL PREPARATION PLANT

A Coal Preparation Plant (CPP) is a facility that processes run of mine coal to separate out rock and mineral contaminants to produce clean coal. Traditional specific gravity separation techniques are used in the CPP. Clean coal from the West Cliff CPP is primarily used in steel manufacturing. The proposed project is to improve the reliability of the CPP, thus ensuring the efficient processing of current output from the Appin and West Cliff Collieries without the need for excessive handling or stockpiling.

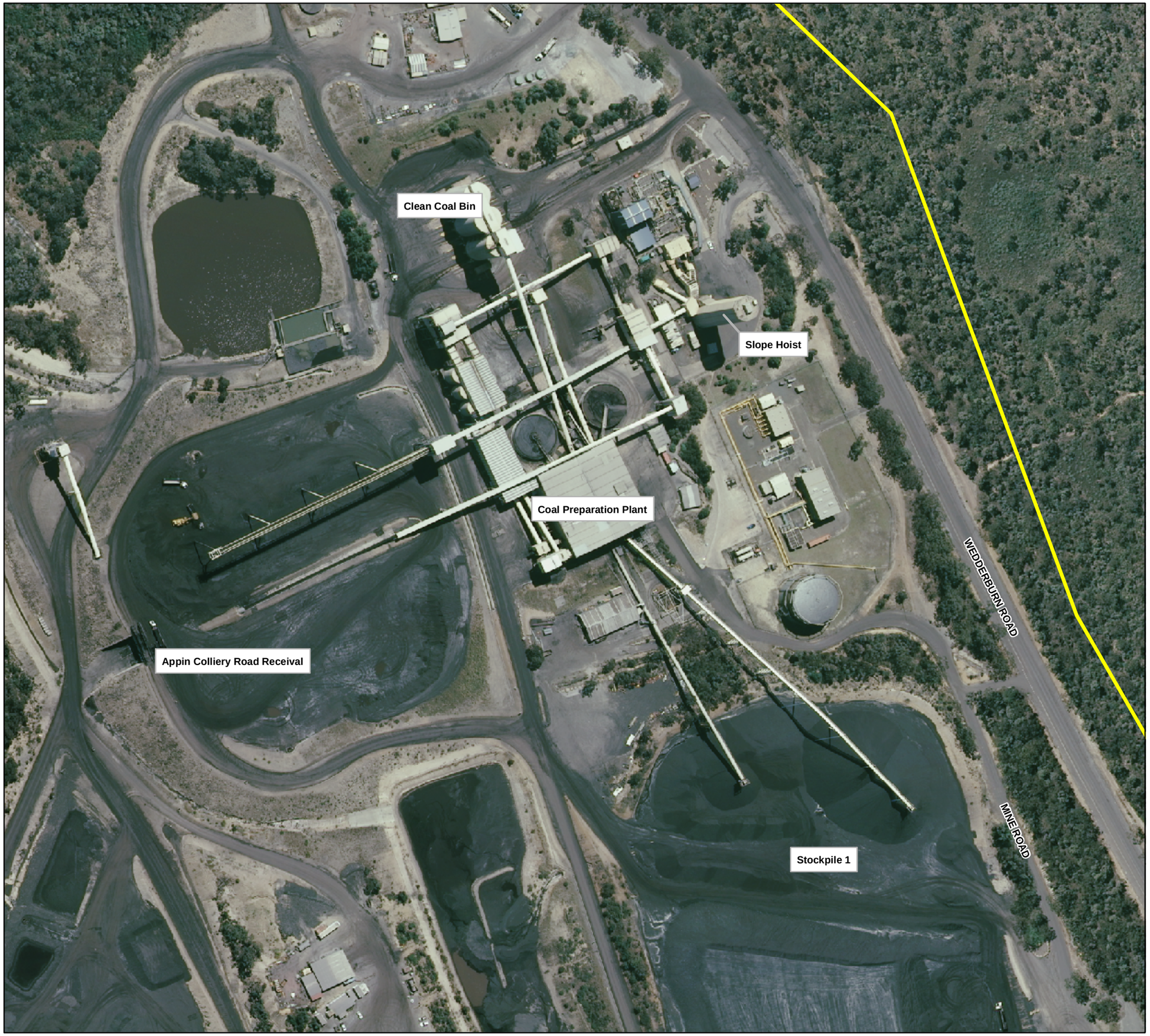
The West Cliff CPP is located towards the north end of the West Cliff Site (refer to **Figure 3**). Coal arrives at West Cliff CPP via underground conveyor belts from West Cliff Colliery and via trucks from Appin Colliery. The Slope Hoist (refer to **Figure 3**) lifts west Cliff Colliery coal to the surface. This coal then travels via conveyor into the CPP. The Appin coal trucks tip coal into an under road hopper at the road receival area (refer to **Figure 3**) and it travels via conveyor into the CPP. This ROM coal consists of coal, rock and other mineral contaminants extracted from the coal seam. ROM coal can have large variability of moisture and maximum particle size.

ROM coal from the two collieries can be either fed directly into the CPP or stored on stockpiles near the West Cliff CPP prior to processing. This allows the CPP to operate at consistent throughput. It is not preferable to stockpile coal prior to processing as this adds another step into the coal handling process that increases time, causes breakage of the ROM coal generating harder to process fine material and uses additional resources (i.e. machinery to stack and reclaim the coal). The proposed improvement of the CPP will allow it to operate with greater reliability, thus reducing the need for ROM coal stockpiling.

The majority of the CPP equipment is housed within a large warehouse style building constructed of corrugated steel sheeting attached to a steel framework. There are numerous conveyor belts leading into and out of the CPP, which feed ROM coal or stack out clean coal. The land rises in height directly to the south of the CPP. A vehicular access is constructed from the top of the rise into the second level of the CPP. Thus, the CPP has external access to two levels.

The CPP predominantly operates with limited intervention from a small number of CPP operators. However, employees also perform maintenance, planning, HSEC and engineering functions in order to ensure reliable operation of the CPP.

The West Cliff CPP operates as described below and shown in **Figure 4**.



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Site Plan

BHPIC WEST CLIFF
COAL PREPARATION PLANT

Legend

- West Cliff Lease Boundary
- Cadastre (LPI)

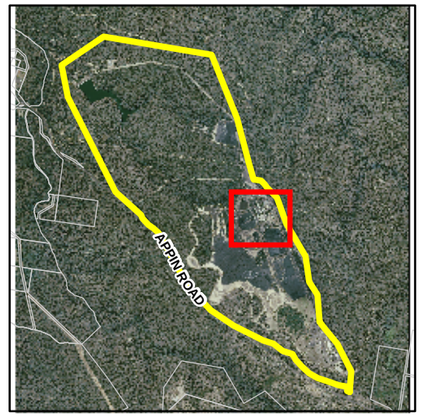

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FIGURE 3

Scale 1:2,000 (at A3)

Metres
0 25 50 75 100

Cardno Forbes Rigby

Map Produced by Cardno Forbes Rigby Pty Ltd
Date: 28 August 2008
Coordinate System: Zone 56 MGA/GDA 94
GIS MAP REF:
109010-01_1801_SitePlan.mxd

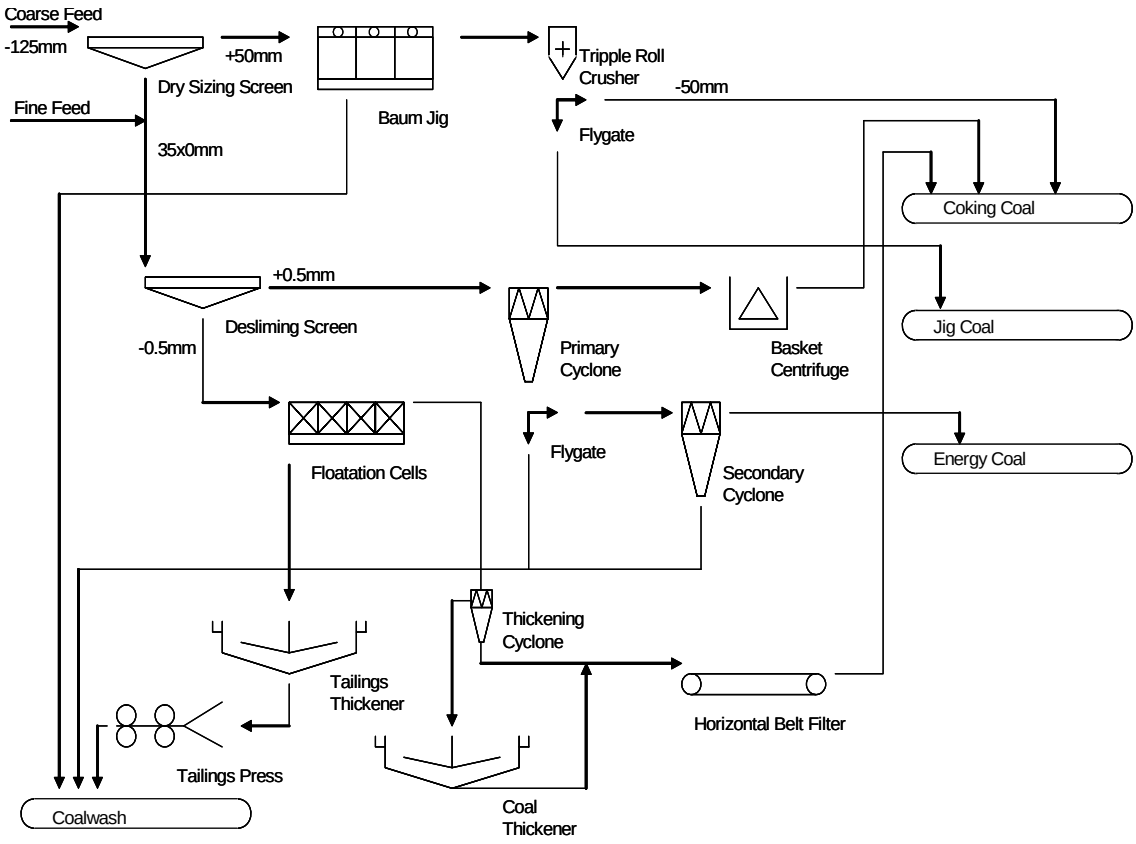


Figure 4 – Flowsheet of West Cliff CPP

Step 1. Crushing

The ROM coal is conveyed to the CPP via conveyor and passes through a rotary breaker which reduces the top size of the coal which makes the coal easier to handle.

Step 2. Screening

The ROM coal passes through a screen house where the coal is sized into two size fractions. The coarser material is conveyed to one set of storage bins and the finer material is conveyed to another set of storage bins prior to entering the CPP. The sizing process prepares the ROM coal for treatment within the CPP via different processes.

Step 3. Separation

Coarse Coal Circuit – the coarse material is treated in a Baum Jig where the coal is separated from the rock via density difference. The coal is conveyed to the clean coal storage bins and the rock and other contaminants are conveyed to the Refuse bin.

Small Coal Circuit – The small coal is screened again and the coarser material is combined with magnetite slurry of controlled density and pumped under pressure into dense medium cyclones where the coal is separated from the rock. The coal is dewatered in centrifuges and then conveyed to the clean coal storage bins. The reclaimed water is reused within the CPP. The rock and other contaminants are conveyed to the Refuse bin. The magnetite

slurry is reclaimed and reused within the CPP. The fine coal material is treated in the fine coal circuit.

Fine Coal Circuit – The fine coal is mixed with water and treated in flotation cells where air is bubbled through the coal / water slurry and the fine coal particles stick to the air bubbles and is retrieved from the top of the flotation cells. The rock, or tailings, sink to the bottom of the flotation cell and is extracted. Both the fine clean coal and tailings materials are further treated in thickeners and filters to remove as much water as possible. The reclaimed water is reused within the CPP. The dewatered fine coal is conveyed to the clean coal storage bins and the dewatered tailings are conveyed to the refuse bin.

4.2. PROPOSED RELIABILITY UPGRADE

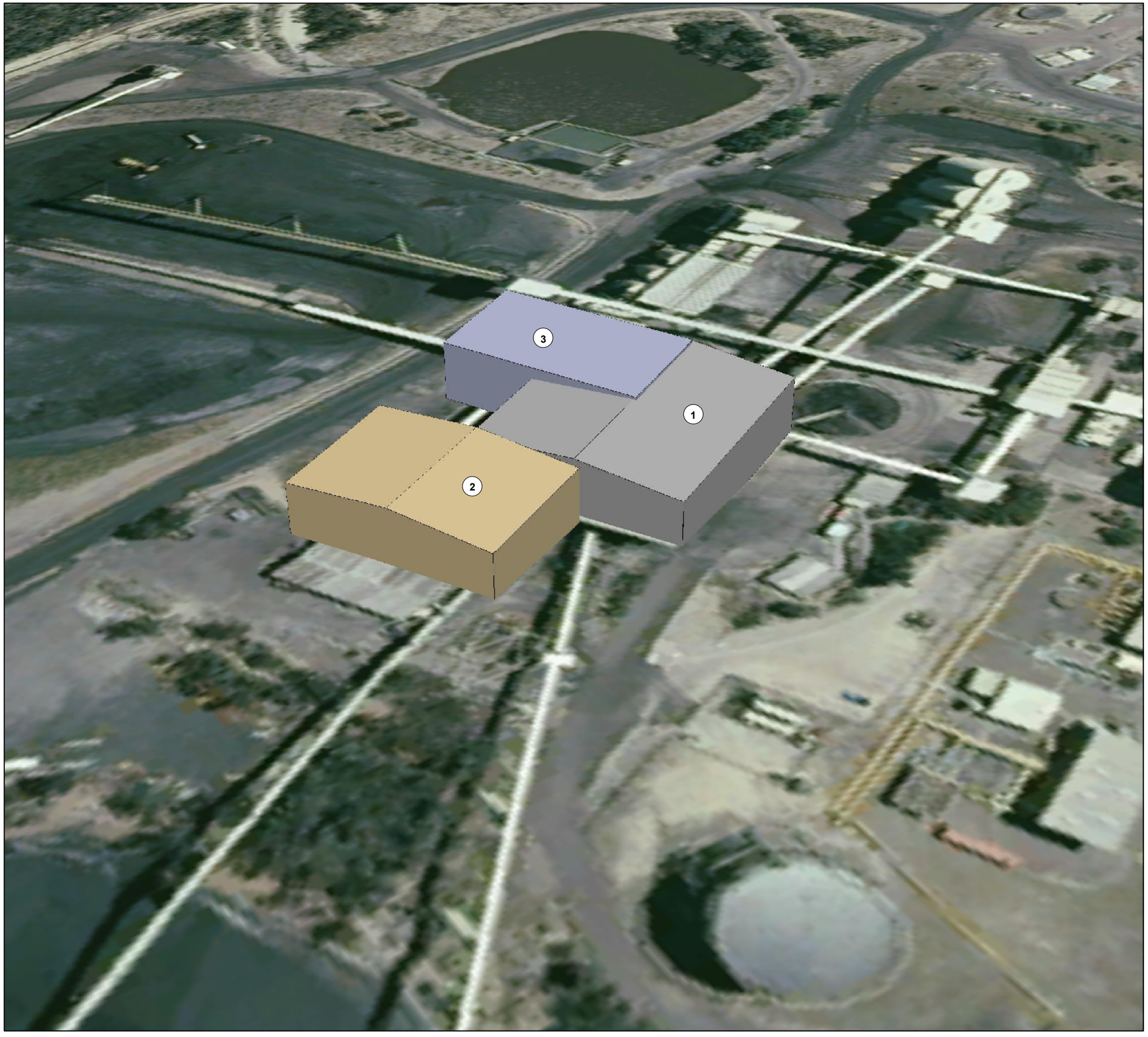
The greatest limitations on reliability of the CPP are the coarse coal (Jig) circuit and the flotation circuit. BHPBIC propose to replace both of these circuits with current technology. Therefore, the proposed project has two primary work portions.

The first part of the proposal comprises of the construction of a replacement coarse coal circuit. The proposal is to locate this directly to the south of the existing CPP and slightly to the west of the existing eastern wall. The new circuit will be housed in a rectangular extension to the CPP building that is approximately 4.5 metres higher than the existing CPP. This proposed section will be approximately 50m long by 21m wide. It is anticipated that it will be constructed of similar materials to the existing CPP.

The second component of the proposed upgrade is a replacement flotation circuit which is to be located on the western side of the CPP. This will form an extension to the existing CPP building. The extension will be approximately 12m long and 12m wide with a roof height 2m above the existing CPP ridgeline.

The proposed new coarse coal circuit and flotation circuit will allow greater reliability of the CPP by replacing old technology which is reaching the end of its serviceable life, with current technology which will have greater reliability. This will in turn allow the CPP to meet the existing output of the two collieries.

The EA will include plans for both extensions. The block diagram in **Figure 5** gives an indication of size and scale of the extensions in comparison to the existing West Cliff CPP. This demonstrates that the extensions will be comparable in size and scale to the existing CPP. Figure 5 also shows that the proposed equipment will be located adjacent to and within the existing CPP. This ensures the proposal is within disturbed areas and associated with visual impacts from the existing facility.



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Indicative Diagram of West Cliff CPP Upgrade

1. Existing Coal Preparation Plant
2. Proposed Coarse Coal Circuit
3. Proposed Froth Floatation Circuit

West Cliff Lease Boundary

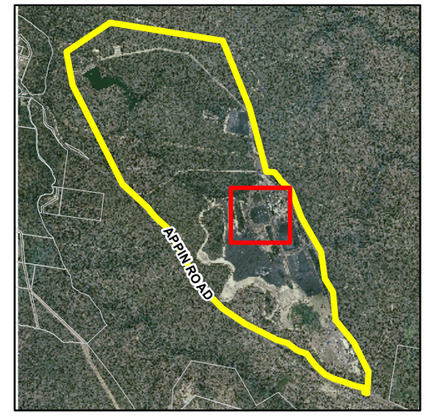

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FIGURE 5

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Map Produced by Cardno Forbes Rigby Pty Ltd
Date: 03 October 2008
Coordinate System: Zone 56 MGA/GDA 94
GIS MAP REF:
109010-01_1802_IndicativeBuildings.mxd

5. KEY ENVIRONMENTAL IMPACTS

This section identifies key environmental impacts that the EA will assess.

5.1. ENVIRONMENTAL PROTECTION LICENCE

West Cliff Colliery operates in accordance with emission levels set by the Department of Environment and Climate Change in Environmental Protection Licence (EPL) 2504. This document is in **Appendix B**. This EPL relates to the following areas of impact and sets appropriate limits in relation to the likely type and severity of impact:

- Water quality – amount of oil, grease, biochemical oxygen demand and suspended soils and the permissible PH level
- Air quality - amount of nitrogen oxides which may be discharged from the WestVAMP power generation plant.
- Dust – the EPL does not set emission limits but stipulates, “the premises must be maintained in a condition which minimises or prevents the emission of dust from the premises”.
- Noise – the EPL does not specify noise emissions limits
- Waste – the EPL does not specify waste emissions limits

BHPBIC expect the proposed CPP Reliability Project will not increase any licence limits as specified in EPL 2504. If the assessments demonstrate that, any additional impacts from this proposed project will result in non-compliance with the EPL, appropriate mitigation measures will be proposed to ensure continued compliance.

5.2. WATER QUALITY

The proposed CPP project will remove limited vegetation and replace the existing porous soil surface with a roofed building. The surface area of the roof will result in a limited increase in stormwater discharge compared to the current environment.

Waste water from the CPP will be managed through existing water management system (WMS) for the West Cliff site. The WMS includes a large number of onsite drains and ponds, denoted as Ponds P1 to P7. The WMS also includes a water treatment plant (WTP) based on large concrete settling tanks near the CPP in the Pit Top Area which employs the principles of chemically-assisted coagulation, flocculation and settling.

Treated water is stored in Brennans Creek Dam (BCD) from where it is used to directly supply the sites water needs, which include underground mining requirements (longwall shearer, continuous miners, dust suppression etc), CPP, and bathhouse facilities with a serviceable clean water supply.

The EA will consider any increases in waste water generation and describe the proposed works to link with the water management system to direct this water into existing storage ponds for treatment, and subsequent reuse through the exiting water management system, or discharge.

5.3. AIR QUALITY

The CPP uses water in most processes, so dust impacts from the CPP process are generally low. Monitoring of air quality takes place at a range of locations around the site and the EA will review these results to assess the possibility of impacts to air quality from the new CPP equipment. No change to dust deposition rates around the site is expected from this project.

In accordance with EPL 2504 BHPBIC will keep the premises in a condition to minimise dust escape from the Colliery. BHPBIC will maintain this during construction and operation of the proposed equipment. The EA will identify if existing measures to prevent dust escape are adequate to accommodate any increase from the new equipment and if not new measures to ensure continuing compliance with the EPL.

5.4. NOISE

Due to the minimal scale of works (when compared to other mining related developments) and small area of development, noise emissions associated with the construction of the facility will be for a limited period.

The CPP upgrade is to be located nearly 4km from the nearest residential property and it falls within the confines of existing West Cliff CPP surface activities. Due to the distance to the nearest noise sensitive residential receivers, there are no noise limits specified in EPL 2504.

As the EPL does not identify noise emissions from the Colliery as being an issue necessary for control it is unlikely the additional equipment for this CPP Reliability Project will require control. This is because existing noise levels will easily assimilate any noise associated with the construction of the CPP project or from the preparation plant equipment.

BHPBIC do not expect any change in operational noise from the CPP due to this project.

5.5. WASTE

EPL 2504 includes a section on waste but does not specify any specific limits. However, BHPBIC have a waste management process in place at West Cliff Colliery, which is managed by a licensed waste management contractor. The EA will describe this process and identify how it is applicable to waste generated from construction and use of equipment proposed for the CPP Reliability Project.

In summary, during construction, management of waste materials, including recyclables, will be through the existing waste management system at West Cliff Colliery. During operation, coal wash generated during the coal preparation process will be emplaced onsite at the West Cliff Emplacement. This will continue in accordance with existing approvals.

5.6. GREEN HOUSE GAS & ENERGY USE

The mining operations of BHPBIC produce greenhouse gases (GHG) in the overall coal supply chain comprising actual mining of the coal, processing and handling, and transportation of coal. The point sources of the GHG emissions in the supply chain are:

- Fugitive emissions
- Spontaneous combustion and slow oxidation of mined ROM coal when in storage
- Processing of ROM coal to yield clean coal
- Use of electricity in mining / processing operations
- Use of fuel during coal transportation.

Previous GHG assessments conducted for a typical mine have shown that GHG emissions associated with the processing of coal in a CPP is small compared to that arising from the overall coal supply chain. Therefore, the construction and ongoing operations of the development proposed in this PEA is not expected to be significant.

In the EA the point sources of GHG emissions will be identified, and the overall emissions arising from the proposed development will be determined, in terms of both direct and indirect emissions, and the contributions they will make to the overall emissions associated with the coal supply chain will be quantified.

6. SECONDARY ENVIRONMENTAL IMPACTS

This section identifies secondary environmental impacts that the EA will assess.

6.1. ECOLOGY, CULTURAL & EUROPEAN HERITAGE

The location of the CPP extensions has been significantly disturbed over a period of many years. The upgrade will involve the removal of a limited amount of low ecological value vegetation, from approximately 20 square metres next to the existing CPP. The vegetation is not listed as threatened species. The developed nature of the area does not provide support for any fauna habitat.

The development of the existing CPP has involved significant earthworks. This suggests that it is highly unlikely that any Aboriginal cultural or heritage items are present in this area.

Recent ecological and heritage assessments of West Cliff site by Biosis Research, a specialist environmental consultancy, support this conclusion. These indicate that there is not any protected flora or fauna in proximity to the Coal Preparation Plant.

A recent heritage assessment of the proposed location has shown that there are no indigenous or non-indigenous items at or in close proximity to the CPP upgrade development site.

The EA will provide further details from previous ecology and heritage assessment reports to demonstrate no adverse impacts on ecology, cultural and European / Aboriginal heritage will arise from the proposed development.

6.2. VISUAL

The facility is located well away from sensitive visual corridors and is not a location identified for scenic value. The West Cliff site is located on a natural high point in the surrounding area, however the topography and dense tree cover prevent views of the coal preparation plant from outside of the site boundaries. The proposed works will only be visible from within West Cliff site as it is located on ground that is lower than much of the surrounding colliery.

Construction of the CPP extensions will be of similar materials to the existing CPP and will assimilate into the look of the existing Plant. Thus, the proposed works will not be a prominent feature within the existing developments.

The EA will use photographs from the nearest public locations to demonstrate there will not be any detrimental visual impacts because of the CPP Reliability Project.

6.3. CONTAMINATION

The location of the works is amongst existing CPP structures and equipment. However, the exact location of the main part of the upgrade is an area that does not contain any existing developments.

BHPBIC do not expect the development area for the CPP Reliability Project to contain contaminated land. This is based on knowledge of the previous and existing land use of this area and associated pollution control measures.

To ensure the land does not contain contamination a geotechnical assessment of the development area will analyse soil samples. The EA will provide the results of the geotechnical assessment and provide further information on possible contamination, and mitigation measures to minimise impacts on the environment.

6.4. UTILITIES

West Cliff Colliery is serviced by electricity, gas and telecommunications. The proposal will not require any additional utility services as existing services can accommodate the extra demand from the equipment installed during the project. Electricity to power the new equipment for the CPP will be available from recent upgrades to the sites power network.

A consequence of this re-configuration work is that the overall operations will become more energy-efficient and the reduction in power use by existing equipment.

7. CONSTRUCTION MANAGEMENT

A number of contracting firms will construct different aspects of the proposal. However, BHPBIC will maintain responsibility for the environmental management of the proposal and is certified to the ISO 14001 standard.

7.1. ENVIRONMENTAL MANAGEMENT PLAN

The contractor appointed to undertake construction works will prepare Health and Safety and Environmental documentation that will include details of the environmental controls for the worksite. Compliance with the following requirements will be a minimum:

- All staff will be briefed on environmental controls prior to the commencement of work
- Mitigation measures for control of erosion and water pollution in accordance with the soil and construction handbook (Soils and Construction, Volume 1, 4th edition March 2004, LANDCOM).
- Plant will be inspected on arrival to site and prior to use to ensure it is complies with its safety specifications
- Daily inspection of plant to ensure it remains safe for use
- Inductions of all workers to the West Cliff Site.

7.2. CONSTRUCTION SAFETY

All work carried out at West Cliff must be covered by a Permit to Work authority which is issued by the Mine Site Safety Personnel. The Contractor will be required to complete a risk assessment in relation to activities involved in the construction of the project. Once approved by BHPBIC the risk assessment will form part of the Permit to Work that controls all safety management aspects of the development.

Workplace safety is of importance to BHPBIC and relevant measures are in place to increase safety. These include:

- Site induction including safety awareness and hazard specific training
- Mandatory wearing of the following personal protective equipment:
    - Steel toe-capped footwear
    - Hard hat
    - High visibility vest or coat
    - Hand protection
    - Eye protection
    - Hearing protection (wherever applicable).

In addition to compliance with site safety regulations, protective equipment and attendance at site induction the Contractor will be responsible for the safety of their employees and sub-contractor employees. The Contractor will ensure staff at West Cliff CPP will undertake all necessary safety precautions at all times.

7.3. EQUIPMENT INSPECTION

All motorised plant in use during construction by the Contractor or subcontractors will be subject to Statutory Inspection by the Mine Electrical and Mechanical Engineers. The construction work will meet Coal Mine Safety equipment requirements. Any equipment, which does not meet relevant standards, will be removed from site.

7.4. POLLUTION CONTROL MEASURES

The Contractor will be required to ensure that appropriate measures are in place to ensure control of stormwater and silt runoff during construction. Such measures will include silt fencing and diversion drains. These will direct water to existing surface water management systems at West Cliff Colliery.

The Construction Management Plan will detail all such protection measures and compliance with these during construction will be mandatory.

8. CONCLUSION

This section outlines the conclusions of this Preliminary Environmental Assessment.

This PEA has appraised the impact of the proposed coarse coal circuit replacement and reliability improvement project at West Cliff Coal Preparation Plant. The location for the proposed equipment is adjacent to the existing CPP and amongst associated developments.

The upgrade will not be a prominent feature or involve any change in normal activity around the CPP. Environmental impacts from the project are expected to be minor due to the disturbed nature of the surrounding environment and location away from sensitive receivers. Existing environmental protection measures at West Cliff Coal Preparation Plant have sufficient capacity to manage any potential environmental impacts associated with the proposal.

Notwithstanding this, the Environmental Assessment will undertake further study in the following areas:

- Storm water management, ensuring the direction of any additional runoff to existing storage ponds and preventing adverse impacts on surrounding ecology
- Noise impacts from the new equipment
- Waste impacts during construction and operation.
- Effects of the project on greenhouse gas emissions associated with the tasks involved in the project.
- Visual impact, to confirm that the new CPP equipment will not adversely affect the surrounding area
- Contamination, to ensure that the area to be excavated to accommodate the new equipment does not contain contaminated soils.

The justifications for proceeding with the proposed development are numerous and compelling. These include:

- The CPP will be able to reliably meet the existing output of both Appin and West Cliff Collieries
- The need to stockpile ROM coal will be minimised thus reducing the energy usage and associated GHG emissions in the coal supply chain
- The new equipment is modern technology which is designed to be efficient and minimise electricity use
- The CPP will have greater capacity to meet throughput requirements without putting significant stress on the equipment, this will reduce the potential for break down and minimise lost hours
- The CPP will not bottleneck the coal supply chain, ensuring it is more robust, giving greater protection to the ability of the NSW Southern Coalfields to meet customer demands.

This development offers opportunities to BHPBIC to continue to meet customer requirements and further manage and reduce potential impacts on the environment.

This PEA seeks DoP approval to the works described but understands that BHPBIC is currently preparing a separate Development Application under Part 3A of the Environmental Planning & Assessment Act (EPAA) 1979 for the continuation of mining operations at West Cliff Colliery. This DA will incorporate pit top activities including the CPP.

In order to ensure the reliability of the CPP BHPBIC wish to conduct the works described in this PEA without delay. Due to this, BHPBIC are seeking the approval for these works prior to the submission of the more encompassing Part 3A application.

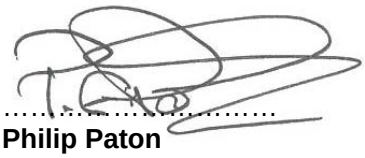
To this end BHPBIC are comfortable that the approval of the Part 3A application described in this PEA shall cease to have force and effect subsequent to the granting of any project approval under Part 3A of the EPAA 1979 that covers the West Cliff Colliery Surface Facilities.

9. REFERENCES

BHP Billiton Illawarra Coal Pty. Ltd., 2008, West Cliff Coal Preparation Plant Options Report

Wikipedia, 2008, Coal Preparation Plant, www.wikipedia.org

Prepared by
for and on behalf of
FORBES RIGBY PTY LTD



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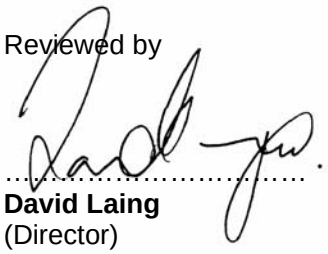
Philip Paton
(Town Planner)

Reviewed by



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David Laing
(Director)

Cardno Forbes Rigby Pty Ltd
278 Keira Street
WOLLONGONG NSW 2500
Telephone: (02) 4228 4133
Facsimile: (02) 4228 6811

APPENDIX A

WEST CLIFF COLLIERY DEVELOPMENT CONSENT

TELEPHONE PICTON 71 326

SEPARATE COMMUNICATIONS SHOULD BE FORWARDED RELATIVE TO EACH SUBJECT

Wollondilly Shire Council

COUNCIL CHAMBERS, PICTON 2571

17th April 1975.

Development Manager,
Coal Development Services Pty.Ltd.,
P.O. Box 1179,
WOLLONGONG. N.S.W. 2500

Subject: Proposed "West Cliff" Mine.

Dear Sir,

I refer to your submission on 3rd March 1975 of an Environmental Impact Statement for the abovementioned development.

At its recent meeting, Council resolved that final development consent for the mine now be granted, subject to the following conditions:-

a) submission of building applications in respect of all buildings and structures;
b) improvement of Wedderburn Road and its intersection with the Appin-Bulli Road to standards agreed with Council and the D.M.R.;
c) treatment and disposal of stormwater to the satisfaction of the Shire Engineer;
d) treatment and disposal of all effluent and sullage by means of a "package" sewerage works to standards approved by Council, the Health Commission and the State Pollution Control Commission;
e) strict compliance with all plans approved by Council unless an amendment has been specifically agreed in writing by Council;
f) consultation with Council's Bush Fire Committee concerning appropriate fire control measures, and the implementation of any measures requested by the Committee;
g) such traffic signs as may be suggested by the Police Department as relevant to the colliery development being erected at the Company's expense;
h) the Company carrying out, in consultation with Council, a 5 yearly review of coal refuse disposal procedures, and implementing any change in those procedures that may reasonably be sought by Council;
i) the Company itself obtaining all necessary approvals from other relevant statutory authorities;
j) at the completion of the mining activities, the Company leaving the mine site in a safe, clear and tidy condition to the satisfaction of Council, specifically
i) the removal or satisfactory covering of all buildings and structures, as required by Council;
ii) all batters being left at a safe angle of repose;
iii) exclusive only of sealed access roads, satisfactory grading, top-dressing to a depth of 150mm and revegetation of all surface areas;
iv) sealing of the mine shaft in a substantial manner, with adequate provision for drainage of the mine.

.../2

Coal Development Services Pty.Ltd. 17th April 1975.

k) construction of the proposed parking areas, access roads and sealed traffic areas to Council's normal standards, to the satisfaction of the Shire Engineer;

l) the Company agreeing to comply with any "stop-work" notice issued by Council in the event that any of the fore-going conditions of approval are breached;

m) the Company indemnifying Council from any action, suit, claim or demand arising from any action or thing which it may be permitted or required to do under the terms of this approval.

In accordance with Council's usual policy, you are requested to agree in writing to the above conditions within 30 days of receipt of this letter.

With regard to your letter of the 27th March 1975, Council resolved that the originally proposed supplementary study of botany, zoology and archaeology be no longer required, and is quite satisfied with the Impact Statement as already submitted.

I look forward to continuing close cooperation between Council and your Company in the satisfactory completion of the West Cliff Mine project.

Yours faithfully,

R.I.Love,
SHIRE CLERK.

DEPT.	ACT.	INF.	INITIALS
MANAGER DEV.	✓		BR
MANAGER ENG.			
MANAGER W.C.	✗	✓	RG
SECTR. ENG.			

RECD 22 APR 1975

FILE No. W.1

V... of Sec.			
DE...			
A...	✗	✓	DB
PUBL. OFFICER			
ACCOUNTS			

Answered by..... on .....

No. 321/75

D.....

APPENDIX B

ENVIRONMENTAL PROTECTION LICENCE 2504

Section 55 Protection of the Environment Operations Act 1997

Environment Protection Licence

Licence - 2504

Department of **Environment & Climate Change** NSW

Licence Details	
Number:	2504
Anniversary Date:	01-February
Review Due Date:	01-Feb-2010

Licensee

ENDEAVOUR COAL PTY LIMITED
PO BOX 514
UNANDERRA NSW 2526

Licence Type

Premises

Premises

WESTCLIFF AND NORTHCLIFF COLLIERIES
WEDDERBURN ROAD
APPIN NSW 2560

Scheduled Activity

Coal Mines
Coal Works

Fee Based Activity	**Scale**
Coal Mining (26)	> 2000000 - 3500000 T produced

Region

Metropolitan
Level 3, NSW Govt Offices, 84 Crown Street
WOLLONGONG NSW 2500
Phone: 02 4224 4100
Fax: 02 4224 4110

PO Box 513 WOLLONGONG EAST
NSW 2520

Environment Protection Licence

Licence - 2504

Department of Environment & Climate Change NSW

Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act); and
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

The EPA publication "A Guide to Licensing" contains information about how to calculate your licence fees.

The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

ENDEAVOUR COAL PTY LIMITED
PO BOX 514
UNANDERRA NSW 2526

subject to the conditions which follow.

1 Administrative conditions

A1 What the licence authorises and regulates

A1.1 Not applicable.

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity
Coal Mines
Coal Works

Fee Based Activity	Scale
Coal Mining (26)	> 2000000 - 3500000 T produced

A1.3 Not applicable.

A2 Premises to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
WESTCLIFF AND NORTHCLIFF COLLIERIES
WEDDERBURN ROAD
APPIN
NSW
2560
DEPARTMENT OF MINERAL RESOURCES DIAGRAM 1140 AND POR ML 39
WESTCLIFF COLLIERY HOLDING AND NORTHCLIFF COLLIERY HOLDING

A2.2 The premises also includes the North Cliff Colliery located at Lot 7014 DP 103029 and Consolidated Coal Lease 724 as shown on the map provided to the EPA 9 May 2003 attached to letter dated 8 May 2003.

A3 Other activities

A3.1 This licence applies to all other activities carried on at the premises, including:

Electricity Generating Works

A4 Information supplied to the EPA

A4.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:
(a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and

(b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

2 Discharges to air and water and applications to land

P1 Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in this licence for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Air

EPA Identification no.	Type of Monitoring Point	Type of Discharge Point	Description of Location
5	Discharge to air; Air emissions Monitoring	Discharge to air; Air emissions Monitoring	Exhaust referred to as "Vocsidiser No. 1 Exhaust" on diagram titled "BHPB Drawing No. D714-030-DU-001" dated 24 November 2004.
6	Discharge to air; Air emission monitoring	Discharge to air; Air emission monitoring	Exhaust referred to as "Vocsidiser No. 2 Exhaust" on diagram titled "BHPB Drawing No. D714-030-DU-001" dated 24 November 2004.
7	Discharge to air; Air emission monitoring	Discharge to air; Air emission monitoring	Exhaust referred to as "Vocsidiser No. 3 Exhaust" on diagram titled "BHPB Drawing No. D714-030-DU-001" dated 24 November 2004.
8	Discharge to air; air emission monitoring	Discharge to air; air emission monitoring	Exhaust referred to as "Vocsidiser No. 4 Exhaust" on diagram titled "BHPB Drawing No. D714-030-DU-001" dated 24 November 2004.

P1.2 The following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

P1.3 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

Environment Protection Licence

Licence - 2504

Water and land

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
1	Discharge to waters Discharge quality monitoring Volume monitoring	Discharge to waters Discharge quality monitoring Volume monitoring	Overflow from West Cliff Colliery dam labelled as 001 'Discharge from Brennan's Creek Dam' on map titled "West Cliff EPA Licence Authorised Discharge Points, DP-2672A" forwarded to the EPA with the Licence Information Form.
2	Discharge to waters Discharge quality monitoring Volume monitoring	Discharge to waters Discharge quality monitoring Volume monitoring	Overflow from North Cliff Colliery's sedimentation dam labelled 001 'Overflow from sedimentation dam' on map titled ' West Cliff Mine No. 3 &4 Shafts EPA Licence Authorised Discharge Points, faxed to the EPA on 4 July 2001.
3		Discharge to utilisation area.	Spray irrigation on grassed utilisation area shaded as '002 Spray Irrigation' on the Map titled "West Cliff - EPA Licence Authorised Discharge Points, DP-2672A" forwarded to the EPA with the Licence Information Form.
4	Discharge Quality Monitoring. Volume Monitoring.		Effluent irrigation pump discharging to POINT 3

3 Limit conditions

L1 Pollution of waters

L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Load limits

L2.1 Not applicable.

L2.2 Not applicable.

L3 Concentration limits

L3.1 For each monitoring/discharge point or utilisation area specified in the table\s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L3.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

L3.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.

Air

POINTS 5,6,7,8

Pollutant	Units of measure	100 percentile concentration limit
Nitrogen Oxides	milligrams per normalised cubic metre	10

Water and Land

POINT 2

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
Oil and Grease	milligrams per litre				10
pH	pH				6.5 - 8.5
Total suspended solids	milligrams per litre				50

POINT 3

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
Oil and Grease	milligrams per litre				10
pH	pH				6.5 - 8.5
Total suspended solids	milligrams per litre				50
Biochemical oxygen demand	milligrams per litre				30

L3.4 The reference basis for the air pollutants specified in Condition L3.3 for Points 5-8 is as follows:

For Nitrogen Oxides: dry, 273 K, 101.3kPa (%O_2 to be specified in accordance with Condition U2 of Attachment A, Development Consent I 946-02 dated 17 June 2003).

L4 Volume and mass limits

L4.1 For each discharge point or utilisation area specified below (by a point number), the volume/mass of:

(a) liquids discharged to water; or;

(b) solids or liquids applied to the area;

must not exceed the volume/mass limit specified for that discharge point or area.

Point	Unit of measure	Volume/Mass Limit
3	kilolitres per day	200

L5 Waste

L5.1 Not applicable.

L6 Noise Limits

L6.1 Not applicable.

4 Operating conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:
(a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
(b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
(a) must be maintained in a proper and efficient condition; and
(b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The premises must be maintained in a condition which minimises or prevents the emission of dust from the premises.

O4 Management of utilisation area

O4.1 Effluent application must not occur in a manner which causes surface runoff.

O4.2 Spray from effluent application must not drift beyond the boundary of the premises.

O4.3 The quantity of effluent/solids applied to the utilisation area must not exceed the capacity of the area to effectively utilise the effluent/solids.

For the purpose of this condition, 'effectively utilise' include the use of the effluent/solids for pasture or crop production, as well as the ability of the soil to absorb the nutrient, salt, hydraulic load and organic material.

5 Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.

M1.2 All records required to be kept by this licence must be:
(a) in a legible form, or in a form that can readily be reduced to a legible form;
(b) kept for at least 4 years after the monitoring or event to which they relate took place; and
(c) produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
(a) the date(s) on which the sample was taken;
(b) the time(s) at which the sample was collected;
(c) the point at which the sample was taken; and
(d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

POINT 1

Pollutant	Units of measure	Frequency	Sampling Method
Arsenic	micrograms per litre	Special Frequency 1	Grab sample
Chemical oxygen demand	milligrams per litre	Special Frequency 2	Grab sample
Conductivity	microsiemens per centimetre	Special Frequency 2	Grab sample
Copper	micrograms per litre	Special Frequency 1	Grab sample
Methylene Blue Active Substances	milligrams per litre	Special Frequency 2	Grab sample
Nickel	micrograms per litre	Special Frequency 1	Grab sample
Oil and Grease	milligrams per litre	Special Frequency 2	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 2	Grab sample
Zinc	micrograms per litre	Special Frequency 1	Grab sample
pH	pH	Special Frequency 2	Grab sample

POINT 2

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	microsiemens per centimetre	Special Frequency 2	Grab sample
Oil and Grease	milligrams per litre	Special Frequency 2	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 2	Grab sample
pH	pH	Special Frequency 2	Grab sample

POINT 4

Pollutant	Units of measure	Frequency	Sampling Method
Biochemical oxygen demand	milligrams per litre	Special Frequency 1	Grab sample
Oil and Grease	milligrams per litre	Special Frequency 1	Grab sample
Total suspended solids	milligrams per litre	Special Frequency 1	Grab sample
pH	pH	Special Frequency 1	Grab sample

POINTS 5,6,7,8

Pollutant	Units of measure	Frequency	Sampling Method
Nitrogen Oxides	milligrams per normalised cubic metre	Quarterly	TM-11

Note: **'**Special Frequency 1' is defined as:

"once a month (at intervals of no greater than 5 weeks apart) and during discharge times."

Note : 'Special Frequency 2' is defined as:

"The sampling is to commence as soon as practicable after the commencement of the discharge (in the case of intermittent discharges over one month, not more than one sample is required in any one week)"

M2.2 The monitoring results collected at Point 4 in compliance with Condition M2.1 can be used to determine compliance with the concentration limits specified in Condition L3.3 for discharge from Point 3.

Note: Following the submission of the Annual Return in 2006, the EPA will review the above monitoring pollutants for Point 1 which may result in the licence being varied.

M2.3 Note: Following the first twelve months of operation of the Electricity Generating Works, and subject to the EPA being satisfied with the first twelve months of monitoring results, the sampling frequency at Points 5-8 may be varied to Annual, or as otherwise agreed.

M3 Testing methods - concentration limits

M3.1 Monitoring for the concentration of a pollutant emitted to the air required to be conducted by this licence must be done in accordance with:

(a) any methodology which is required by or under the Act to be used for the testing of the concentration of the pollutant; or

(b) if no such requirement is imposed by or under the Act, any methodology which a condition of this licence requires to be used for that testing; or

(c) if no such requirement is imposed by or under the Act or by a condition of this licence, any methodology approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

Note: The Protection of the Environment Operations (Clean Air) Regulation 2002 requires testing for certain purposes to be conducted in accordance with test methods contained in the publication "Approved Methods for the Sampling and Analysis of Air Pollutants in NSW".

M3.2 Subject to any express provision to the contrary in this licence, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

M4 Recording of pollution complaints

M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M4.2 The record must include details of the following:
(a) the date and time of the complaint;
(b) the method by which the complaint was made;
(c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
(d) the nature of the complaint;
(e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
(f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M5.3 Conditions M5.1 and M5.2 do not apply until 3 months after:
(a) the date of the issue of this licence or

(b) if this licence is a replacement licence within the meaning of the Protection of the Environment Operations (Savings and Transitional) Regulation 1998, the date on which a copy of the licence was served on the licensee under clause 10 of that regulation.

M6 Requirement to monitor volume or mass

M6.1 For each discharge point or utilisation area specified below, the licensee must monitor:

(a) the volume of liquids discharged to water or applied to the area;
(b) the mass of solids applied to the area;
(c) the mass of pollutants emitted to the air;

at the frequency and using the method and units of measure, specified below.

POINT 1

Frequency	Unit Of Measure	Sampling Method
Special Frequency 3	kilolitres per day	Special Method 1

POINT 2

Frequency	Unit Of Measure	Sampling Method
Daily during any discharge	kilolitres per day	Special Method 1

POINT 4

Frequency	Unit Of Measure	Sampling Method
Special Frequency 4	kilolitres per day	In line instrumentation

Note: 'Special Method 1' is defined as:

"Visual Staff Height measurement with calibrated V-notch weir structure."

Note: 'Special Frequency 3' is defined as:

"Daily during discharge. In the event a discharge volume could not be taken on any one day from POINT 1, the volume discharged from POINT 1 during that one day may be estimated mathematically by averaging the total estimated volume recorded the previous day and the following day. This estimation method may be used not more that six times during the licence reporting period."

Note: 'Special Frequency 4' is defined as:

Calculating by inline instrumentation every Monday, Tuesday, Wednesday, Thursday, Friday and Saturday. The volume discharged during any Sunday and Monday may be estimated mathematically by dividing by 2 the cumulative flow rate monitored and recorded each Monday."

M6.2 The monitoring results collected at Point 4 in compliance with Condition M6.1 can be used to determine compliance with the volume limit specified in Condition L4.1 for discharge from Point 3.

6 Reporting conditions

R1 Annual return documents

What documents must an Annual Return contain?

R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
(a) a Statement of Compliance; and
(b) a Monitoring and Complaints Summary.
A copy of the form in which the Annual Return must be supplied to the EPA accompanies this licence. Before the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee:
(a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
(b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:
(a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
(b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

Deadline for Annual Return

R1.5 The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

Notification where actual load can not be calculated

R1.6 Not applicable.

Licensee must retain copy of Annual Return

R1.7 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary

R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:
(a) the licence holder; or
(b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R1.9 A person who has been given written approval to certify a certificate of compliance under a licence issued under the Pollution Control Act 1970 is taken to be approved for the purpose of this condition until the date of first review of this licence.

R2 Notification of environmental harm

Note: The licensee or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:
(a) where this licence applies to premises, an event has occurred at the premises; or
(b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence,
and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:
(a) the cause, time and duration of the event;
(b) the type, volume and concentration of every pollutant discharged as a result of the event;

(c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
(d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
(e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
(f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
(g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

General conditions

G1 Copy of licence kept at the premises

G1.1 A copy of this licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Signage

G2.1 Each monitoring and discharge point must be clearly marked by a sign that indicates the EPA point identification number.

Pollution studies and reduction programs

Pollution Reduction Programs (PRPs) – Completed

PRP No	PRP	Description	Completed Date
1	Discharge Water Quality	To chemically characterise the quality of the water discharges from Brennans Creek Dam and the chemical impacts on the ambient water quality of the Georges River	6 Mar 2003
2	Appin Colliery Mine water Trial	To determine the impact on the water quality of the Brennans Creek water system from the use of imported saline Appin Colliery mine water in the Westcliff Coal Preparation Plant.	Removed from licence June 2004 – PRP no longer required
3	Effluent Utilisation Area	To provide a detailed report on the operation of the effluent treatment plant and the irrigation utilisation area	20 Feb 2004
4	Georges River Ecological Assessment Report	The aim of this PRP is to provide a report to investigate if there is an ecologically significant impact on the surface waters receiving the treated mine waters discharged from point 2 is occurring, including Brennans Creek and the Georges River.	5 June 2004
5	Coal Tracking from Truck Wash	The aim of this study is to recognise and address the issue of coal fine tracking from the premises given the potential for this to cause pollution of waters.	1 Sept 2005
6	Georges River Ecological Assessment	The aim of this PRP is to investigate and report on the surface waters receiving the mine waters discharged from Westcliff Colliery premises, including Brennans Creek and the Georges River, to determine if any ecologically significant impact is occurring.	3 Jan 2005

U1 **Pollution Reduction Program No 7. – Brennans Creek Discharge Trial**

Aim: The aim of this PRP is to trial controlled discharges of water from Brennans Creek Dam (bottom waters) and the Reclaim Pond (the "Trial") in an endeavour to minimise the frequency of rain induced uncontrolled releases over the dam spillway. The releases will be undertaken in an effort to optimise the salinity and control the pH of discharges.

U1.1 The Trial must be undertaken in accordance with the document provided to the EPA titled "West Cliff Colliery Water Management System Proposed Pollution Reduction Program Trial" prepared by Ecoengineers Pty Ltd, March 2004 Revision 5.

U1.2 For the purposes of the Trial, the following points referred to in the table are identified in this licence for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.

EPA identification no.	Type of monitoring point	Type of discharge point	Description of location
10	Discharge to waters Discharge quality monitoring Volume monitoring	Discharge to waters Discharge quality monitoring Volume monitoring	Piped discharge from the Brennans Creek Reclaim Dam as shown on the map titled 'Westcliff BCD Water Release System General Arrangement' Drawing Number DP 3460 dated 17.6.04
11	Quality monitoring		Georges River located approximately 50 meters upstream of the confluence with Brennans Creek
12	Quality monitoring		Georges River located approximately 50 meters downstream of the confluence with Brennans Creek

U1.3 For the discharge point specified in the table below (by a point number), the concentration of a pollutant discharged at that point must not exceed the concentration limits specified for that pollutant in the table.

U1.4 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.

POINT 10

Pollutant	Units of Measure	50 percentile concentration limit	90 percentile concentration limit	3DGM concentration limit	100 percentile Concentration Limit
Oil and Grease	mg/L				10
pH	PH				6.5 - 8.5
Total suspended solids	mg/L				50

U1.5 For each monitoring/discharge point specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns:

POINT 10

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	uS/cm	Special Frequency 5	In situ
Conductivity	uS/cm	Special Frequency 1	Grab sample
Oil and Grease	mg/L	Special Frequency 1	Grab sample
Total suspended solids	mg/L	Special Frequency 1	Grab sample
pH	pH	Special Frequency 5	In situ
pH	pH	Special Frequency 1	Grab sample
Arsenic	ug/L	Special Frequency 1	Grab sample
Copper	ug/L	Special Frequency 1	Grab sample
Nickel	ug/L	Special Frequency 1	Grab sample
Zinc	ug/L	Special Frequency 1	Grab sample
Iron	ug/L	Special Frequency 1	Grab sample

POINT 11

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	uS/cm	Special Frequency 5	In situ
pH	pH	Special Frequency 5	In situ

POINT 12

Pollutant	Units of measure	Frequency	Sampling Method
Conductivity	uS/cm	Special Frequency 5	In situ
pH	pH	Special Frequency 5	In situ

U1.6 For the purposes of condition U3.5 Special Frequency 5 means every day with the exception of weekends and public holidays.

U1.7 For the purposes of condition U3.5 Special Frequency 1' means once a month (at intervals of no greater than 5 weeks apart) and during discharge times.

U1.8 The licensee must use in-situ instrumentation when monitoring for the concentration of pH and conductivity at points 10, 11 and 12 at the frequency defined by Special Frequency 5 in compliance with condition U3.5. The in-situ instrumentation used must be operated and calibrated in accordance with manufacturers specifications for that instrument.

U1.9 The licensee must prepare and submit an interim and final written report to the Department of Environment and Conservation Manager Sydney Industry in accordance with section 4 of the document detailed in Condition U3.1.

U2 Pollution Reduction Program No 8. – Materials Storage

U2.1 The aim of this PRP is to ensure materials are stored at the premises in a way which contains leaks and spills and minimises odour and dust generation.

U2.2 The licensee must prepare and submit to the EPA a report that details a program of works to be undertaken to ensure materials are correctly stored and bunded, that is, compliant with the requirements of:

- *Australian Standard AS 1940B1993: The Storage and Handling of Flammable and Combustible Liquids; and*
- *Australian Standard AS 4452B1997: The Storage and Handling of Toxic Substances* the *Dangerous Goods Act 1975.*

This program of works must cover waste oil tanks, waste oil drums, on site fuel storage and on site chemical and materials storage, including stone dust, and include timelines for all construction work necessary.

It is the intention of the EPA to issue a subsequent PRP requiring the licensee to implement the outcomes of this PRP.

COMPLETION DATE: 30 April 2005

U3 Pollution Reduction Program No 9. – Georges River Ecological Assessment (Continuation)

U3.1 The aim of this PRP is to further investigate and report on the surface waters receiving the mine waters discharged from Westcliff Colliery premises, including Brennans Creek and the Georges River to determine if any ecologically significant impact is occurring.

U3.2 The licensee must repeat the ecological assessment described and timetabled in the document titled 'Ecological effects of water discharges from Appin and Westcliff Collieries' by Dr Marcus Lincoln Smith and dated 21 April 2004 and attached to letter dated 19 May 2004 signed Gary Brassington Environmental Coordinator Illawarra Steel Carbon Steel Materials BHP Billiton a further two times, in two successive seasons, that is Spring and Autumn.

The licensee must prepare and submit to the EPA a written report detailing the outcomes of the ecological assessment.

Completion Date: 31 March 2006

Special conditions

E1.1 Not applicable.

Dictionary

General Dictionary

In this licence, unless the contrary is indicated, the terms below have the following meanings:

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 1998.

flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
industrial waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
inert waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 1998
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
reprocessing of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

TM	Together with a number, means a test method of that number prescribed by the *Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*.
treatment of waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste code	Means the waste codes listed in Appendix 5 of the EPA document A Guide to Licensing Part B.
waste type	Means Group A, Group B, Group C, inert, solid, industrial or hazardous waste

Ms Debbie Maddison

Environment Protection Authority

(By Delegation)

Date of this edition - 30-May-2007

End Notes

1	Licence varied by notice 1008874, issued on 09-Jan-2002, which came into effect on 09-Jan-2002.
2	Licence transferred through application 141377, approved on 08-Aug-2002, which came into effect on 01-Jul-2002.
3	Licence varied by correction to EPA Sub Region data record, issued on 17-Sep-2002, which came into effect on 17-Sep-2002.
4	Licence varied by notice 1025524, issued on 10-Jul-2003, which came into effect on 04-Aug-2003.

End Notes

5	Licence varied by notice 1029826, issued on 15-Oct-2003, which came into effect on 22-Oct-2003.
6	Licence varied by notice 1034664, issued on 11-May-2004, which came into effect on 05-Jun-2004.
7	Licence varied by notice 1037771, issued on 18-Jun-2004, which came into effect on 13-Jul-2004.
8	Licence varied by notice 1040023, issued on 20-Sep-2004, which came into effect on 15-Oct-2004.
9	Licence varied by notice 1041777, issued on 25-Oct-2004, which came into effect on 19-Nov-2004.
10	Licence varied by correction to EPA Region, issued on 22-Nov-2004, which came into effect on 22-Nov-2004.
11	Licence varied by notice 1043281, issued on 06-Jan-2005, which came into effect on 31-Jan-2005.
12	Licence varied by change to EPA file number, issued on 02-Feb-2005, which came into effect on 02-Feb-2005.
13	Licence varied by notice 1046029, issued on 05-Apr-2005, which came into effect on 30-Apr-2005.
14	Licence varied by change to DEC Region allocation, issued on 16-Mar-2006, which came into effect on 16-Mar-2006.
15	Licence varied by notice 1073110, issued on 30-May-2007, which came into effect on 30-May-2007.