West Cliff Mine
Water Supply

Preliminary Assessment

Prepared to accompany a Major Project (Part 3A) Application pursuant to the EP&A Act 1979

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1. INTRODUCTION

This Project Application and Preliminary Assessment relates to a secure high quality water supply to the West Cliff Mine site. It is a critical component of the overall Vocsidizer Project being implemented by BHP Billiton Illawarra Coal.

As part of continuing operations at West Cliff Mine, BHP Billiton Illawarra Coal is implementing the Vocsidizer Project, which will significantly reduce the amount of mine ventilation gases released to atmosphere at the West Cliff Mine.

Currently all methane within the mine ventilation air is vented into the atmosphere. The Vocsidizer Project will enable a proportion of that methane to be captured and used to generate electricity.

The Vocsidizer Project is development for the purposes of coal mining and will consist of a power plant to use up to 20% of the available mine ventilation air (and its methane) to generate electricity.

This Project Application and Preliminary Assessment relates to the Project involving installation of a water pipeline in a largely existing easement between Appin and West Cliff Mines. The pipeline will provide a reliable high quality water supply to West Cliff Mine for cooling water for the Vocsidizer currently under construction.

The proposal involves laying the pipe and minor infrastructure works at both Appin and West Cliff to connect the supply pipeline to existing facilities, or facilities currently under construction.

Figure 1 provides a schematic overview of the West Cliff Water Supply Project in relation to existing features at Appin and West Cliff Mines. It shows the areas affected by the proposal and some of its components in plan view.

2. PROJECT DESCRIPTION

The proposed Water Supply components of the Project comprise:

- Installing a water supply pump at Appin Mine;
- Electrics associated with pump installation;
- Erecting a steel framed pump building enclosure at Appin Mine;
- Connecting to existing fresh water service line at Appin Mine;
- Constructing a 250kL water storage tank at West Cliff Mine; and
- Installing a 3500 m long, 150 mm diameter pipeline to connect Appin Mine to West Cliff Mine.

The steel framed building and tank will be consistent with the colour, nature, character and function of existing site infrastructure.

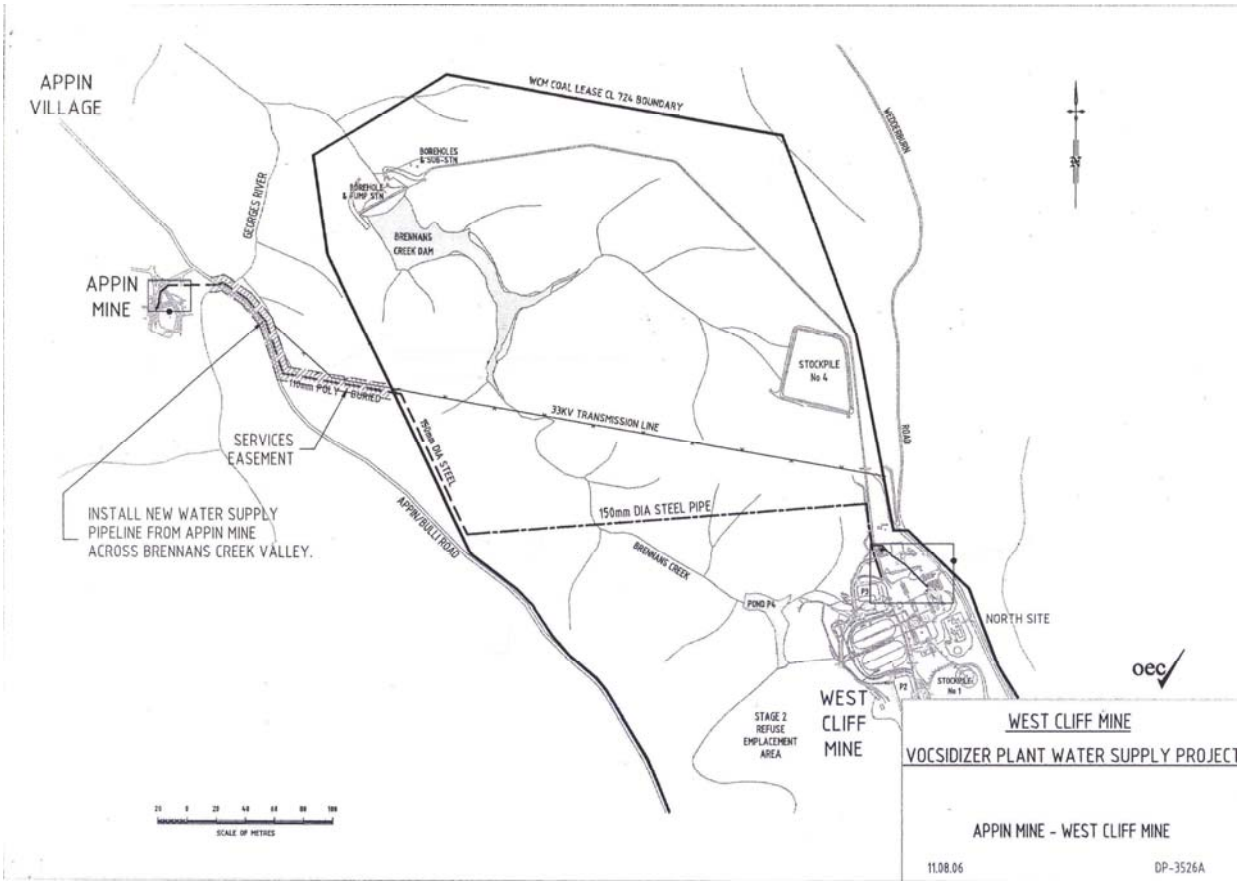

Figure 1: Vocsidizer Plant water supply route from Appin Mine to West Cliff Mine.

The works to be undertaken for the overland pipeline involve:

- Installing 150mm diameter plastic pipe over a 3300m length in existing easements;
- Installing 150mm diameter plastic pipe over a 200m length in a new easement; and
- Installing 150mm diameter galvanised steel pipe over a 30-metre length where the existing easement crosses the Georges River.

The Georges River at this location is an ephemeral stream, not affected by the tide. It is regularly dry, as is demonstrated in Photo 2.

Photo 2: Kings Falls Bridge on the Bulli-Appin Road over the Georges River.

There will be no additional access roads required for the project. All project employees will use existing parking and administration facilities.

Figure 2 shows where remnant vegetation will be removed from a new 200m-long easement along the line of the proposed water pipeline. Brennan's Creek Dam is owned and operated by Illawarra Coal and is not a public drinking water supply.

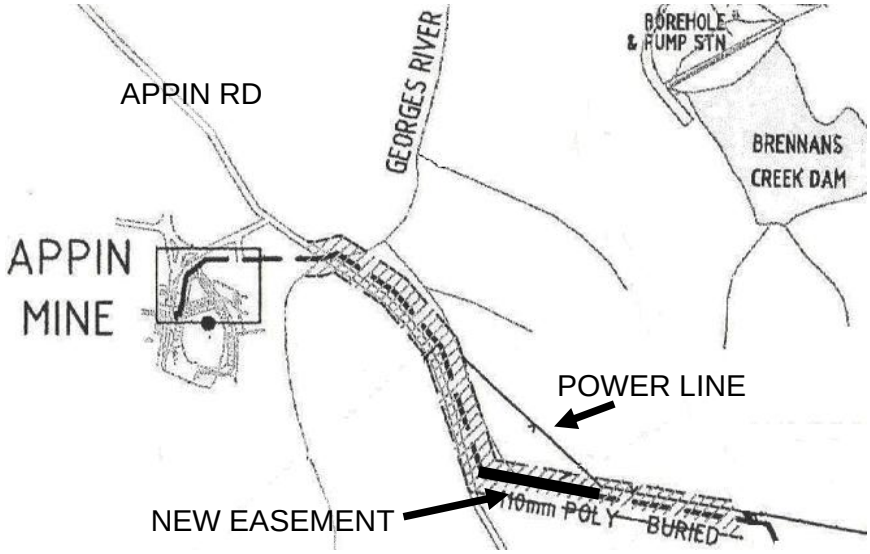

Figure 2: Line of proposed new water pipeline near Appin Mine through existing roadside and power line easements. The position of a proposed 200m long easement is shown.

3. APPLICABILITY OF PART 3A TO THIS PROPOSAL

Schedule 1, Group 2 of State Environmental Planning Policy (Major Projects) 2005 specifies that development for the purposes of coal mining must be approved in accordance with Part 3A of the Environmental Planning and Assessment Act 1979 (EP&A Act).

This pipeline has a capital investment value of approximately $0.3M. Mining Regulation 2003 - Reg 7(a)(iii) and (iv) defines construction and use of a water race or pipeline in connection with mining operations as a "mining purpose". As a consequence, the proposal is a ‘project’ for the purposes of Part 3A of the EP&A Act and requires approval under that Part.

4. PLANNING PROVISIONS APPLYING TO SITE

The site is located within the Wollondilly Shire Local Government Area. Under Wollondilly Local Environmental Plan 1991 (LEP91), the West Cliff Mine and the area between West Cliff and Appin Mines is zoned Rural A1. The Appin Mine site is zoned 4(c) Light Industrial Service. Developments characterised as a mine are allowed in Rural A1 zones with consent.

Following submission of Development Application 1964/02, Wollondilly Shire Council granted Development Consent for the overall Vocidizer Project on 17th June 2003.

The land is located within a Mine Subsidence District within the meaning of Section 15 of the Mine Subsidence Compensation Act 1969. Illawarra Coal will consult with the Mine Subsidence Compensation Board in relation to this Project. All land affected by the

project has been subject to previous underground mining and further mining of the affected area is not planned.

The land is subject to the provisions of the Greater Metropolitan Regional Environmental Plan No 2, Georges River Catchment.

Wollondilly Shire Council has a number of Development Control Plans that apply to land zoned Rural A1 that may be relevant to this Project. These are as follows:

- DCP No 7- Off street Parking.
- DCP No 36-Development in Rural Zoned Areas.
- DCP-Design Code.
- DCP-Wollondilly Agricultural Lands.

5. VIEW OF OTHER AGENCIES, LOCAL COUNCIL AND COMMUNITY

5.1 Wollondilly Shire Council

The Project has been discussed with officers of Wollondilly Shire Council and further consultation will be ongoing as needed. Wollondilly Shire provided information on land ownership in the area, and provides ongoing inspection and management for Crown Land in the area.

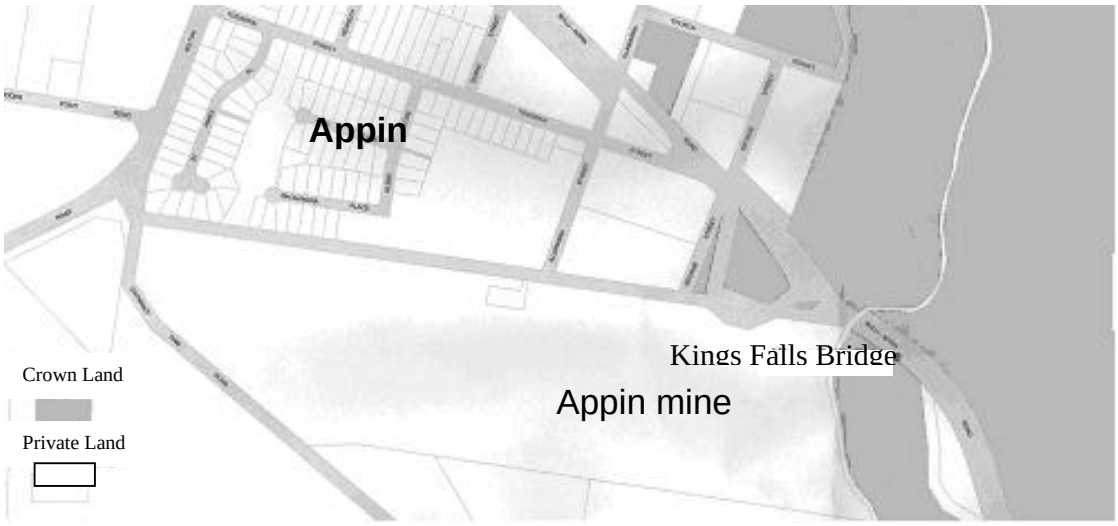

Figure 3: Land ownership around King's Fall Bridge. Original map supplied by Wollondilly Shire Council.

5.2 Local Community

Illawarra Coal operates a very extensive community consultation programme for its mining activities in this area. Illawarra Coal supports the operation of the Appin Area Community Working Group (AACWG) and participates in the meetings of this group.

Illawarra Coal also operates an office in the Appin Business and Shopping Precinct. This office provides information an opportunity for members of the community to discuss developments at Appin and West Cliff Mines. Notice of this Project will be placed at this office to inform the local community. Illawarra Coal has a 24-hour contact telephone line for the community to be able to contact the Mines as required.

5.3 Department of Planning

Discussions have been held with Officers from the Department of Planning with respect to the approvals process.

5.4 Department of Primary Industries – Minerals

The Department of Primary Industries – Mineral Resources have confirmed that joining two mines with a water pipeline does not require their approval.

5.5 Dams Safety Committee

The pipeline route occurs within the notification area for Brennan's Creek Dam. Discussions with the Dams Safety Committee have taken place, and copies of the plans have been lodged. No further approval or notification is required.

5.6 Mine Subsidence Board

The pipeline route occurs within a Mine Subsidence District. Discussions with the Mine Subsidence Board have taken place, and copies of the plans have been lodged. No further approval or notification is required.

6. OTHER APPROVALS REQUIRED

The Project requires the water pipeline to pass underneath the abutments of the Kings Falls Bridge on the Bulli-Appin Road. There have been ongoing discussions with the RTA, and an application to attach the pipe to the bridge abutments was lodged with the RTA under the Roads Act, 1993. No public roads will be closed or affected by the Project. It is unlikely that there will be significant change to current traffic numbers during construction.

A Part 3A permit under The Rivers and Foreshores Improvement Act 1948 to cross the Georges River is not required as the land is Crown land (refer to Figure 3). While no formal permit is required, The Department of Natural Resources has consulted on the proposed crossing. The Georges River in the area is an intermittent stream and is currently dry, as shown in Photo 2. The Department of Lands have been contacted to discuss the project and have provided information on land ownership in the area, and the entry and approvals process to carry out works on Crown Land. Section 8F 1(c) of Environmental Planning and Assessment Regulation 2000 says that land owner's consent is not required for an application under Part 3A when the application relates to a mining production process.

West Cliff and Appin Mines currently hold licenses from the Department of Environment and Conservation under the Protection of the Environment Operations Act. This Department will be notified of the new installations, and if required, the existing license will be modified to accommodate any additional DEC requirements.

An existing valid Mining Lease from the Department of Mineral Resources covers the surface areas at Appin (Consolidated Coal Lease 767) and West Cliff (Consolidated Coal Lease 724).

7. PRELIMINARY ENVIRONMENTAL ASSESSMENT

To date there have been no Preliminary Assessment Guidelines gazetted by the Minister. The Draft Part 3A Guidelines from July 2005 have been followed in this Project Application and Preliminary Assessment.

The proposed West Cliff Mine Water Supply will largely be constructed on existing Coal Mining Leases within and adjacent to existing coalmine surface infrastructure. The exceptions are the Georges River crossing, and easements near Appin Mine, where construction will occur on existing easements on Crown Land. The Georges River at this location is an ephemeral stream, and regularly dry. There is one 200 metre long easement on Crown Land that will be created as part of the Project.

7.1 Air Quality and Dust

The construction of the water supply system should not generate excessive levels of dust. There is potential to generate dust during the excavation of the pipeline trenches. It is planned for construction to occur over a ten-week period in late 2006. In addition, only short sections (typically 100m) of trenching will be open at any particular time. Once operating, the water supply system should not have any air quality and dust impacts.

7.2 Surface Water Management

Measures will be taken to control surface water runoff to minimise soil erosion and sediment generation. Silt fences will be used downstream of disturbed areas during and following trenching. The surface of the trenched areas will be revegetated at the completion of construction.

Preparation for excavation of pipe trenches will include removal of any obstructions on the route that may interfere with the excavation works or pipe laying, and the establishment of erosion and sedimentation control measures. These measures will include soil diversion banks across the pipeline routes and installation of silt fencing at strategic locations.

A trench was cut and a gas pipe laid fifteen years ago. It is proposed to re-excavate this trench and place the water pipe beside the gas pipeline with adequate cover between the two. Silt fences and flow diversions will be in place during the short period of trenching and back filling. After construction has finished, the trench in the base of the Georges River will be back-filled with concrete to prevent erosion.

The pipeline route on the Appin Mine site will run beside the Sedimentation Dam over rough and sparsely vegetated ground near a disused cyclone mesh fence. Before the pipe trench excavation commences the Contractor will clear the area, remove the fence and shape the area to an even grade.

The pipeline route on the West Cliff Mine crosses a mine site haul road. The Contractor will provide traffic diversion barriers to protect the work site and avoid interfering with the haulage operations.

7.3 Acoustics

Due to the relatively short duration and isolation of activities from local community, adverse acoustic impacts are not expected during construction.

During operation of the water supply system, adverse acoustic impacts should not occur. The pump at Appin will be located within a shed in a central section of the Mine. Public access to both Appin and West Cliff Mines is limited and controlled. It is unlikely that neighbours would be able to hear any activities associated with the water supply system during installation or operation.

7.4 Fauna and Flora

Most areas affected by the proposal are already heavily disturbed. Consequently, adverse impacts on flora and fauna are not predicted. A flora and fauna study will be conducted to further assess the possible impacts along a 200m long section of the pipeline route not already heavily disturbed. This section is shown in Figure 2. The Georges River in this area is an ephemeral stream that is regularly dry as shown in Photo 1. No impacts on aquatic life are expected. Standard sediment controls will be adopted throughout the project.

7.5 Traffic

The workforce is predicted to be a maximum of six people. This number will not significantly affect traffic numbers in the vicinity. Pipes will be delivered to site as required and this is expected to require a maximum of six semi-trailer deliveries during construction. There will be a small number of vehicle movements associated with establishing and removing construction activities.

Passing the pipeline under the abutments of the Kings Falls Bridge is unlikely to interfere with traffic flow on the Appin-Bulli Road. Appropriate safety measures will be implemented to ensure workforce and public safety.

7.6 Waste Management

The site is not connected to a Town Sewage Scheme. During construction, port-a-loo facilities will be provided for the workforce when distant from Appin and West Cliff Mines. The systems in place at West Cliff and Appin Mines can handle the additional workforce during construction and ongoing operations.

An appropriately licensed contractor currently manages putrescible wastes on the site and this will continue after the water supply system is installed. Wastes will not be disposed on site.

During construction there may be waste generated from building materials and general packaging. The mine site waste management process will address recycling and appropriate disposal of packaging materials.

As pipes are delivered to site they will be unpacked prior to installation. Packaging waste will consist of a mix of metals, timber and protective packing. Metals will be recycled. Potential for timber to be recycled will be investigated, otherwise this material, which is classified as builders waste, will be sent to an appropriate landfill. The protective packing materials will be recycled.

7.7 Archaeology, History and Heritage

Most of the areas affected by the proposal are heavily disturbed. The activities are not expected to have an impact on any items with archaeological, heritage or historical significance. An archaeological survey will further assess potential impact along a 200m section of the pipeline route not already heavily disturbed.

Should potential archaeological material be discovered during construction, the work would cease near the material and the Department of Conservation would be advised. The Department would be consulted to reach an agreement on whether the material had archaeological significance and what management measures would be required .

7.8 Visual Impact

Significant visual impact is not predicted. The short duration of construction will minimise the opportunity for adverse visual impact and the majority of the proposal is not visible to the public.

7.9 Avoiding Current Services

The existing gas pipeline in the services easement adjacent to the Bulli/Appin Road, will be located and marked by the Contractor using the “dial before you dig” service. No excavation works will take place on the easement until the location of the gas pipeline is identified. Similar investigations to determine the location of existing services that may be affected by the installation of pipe work on Appin and West Cliff Mine sites will be carried out by mine site personnel before any excavation work takes place.

The pipe routes on both mine sites will be set out and clearly marked by a surveyor so the location is accurately established before installation commences. The surveyor shall be on call during the construction to clarify alignment issues, assess critical grades and curvatures and replace lost pegs, as required.

The description of the proposed Project on the following page places the project in context.

8. DESCRIPTION OF PROPOSED PROJECT

The following table provides a summary of the Project in accordance with the Draft Guidelines 2005.

Project	BHP Billiton Illawarra Coal West Cliff Coal Mine Water Supply.
Objectives	To provide a high quality and reliable water supply to West Cliff Mine. To supply cooling water to the Vocsidizer project.
Major elements including any environmental mitigation measures	Installing a water supply pump at Appin Mine. Erecting a steel framed pump building enclosure at Appin Mine. Connecting to an existing fresh water service line at Appin Mine. Constructing a 250kL water storage tank at West Cliff Mine. Installing a 3500 m long,150 mm diameter pipeline to connect Appin Mine to West Cliff Mine.
Any ancillary works Outline of construction methods	Electrics associated with pump installation. Earthworks in preparation for pump shed and tank. Offsite fabrication of shed and tank with components delivered for on-site assembly. Earthworks in preparation of pipeline trenching and installation. No on-site accommodation. No temporary buildings for administration, meals and toilet/bathhouse.
Outline of operations	Will form integral part of operations at West Cliff Mine. Activity will occur 24 hours per day, 7 days per week, subject to production requirements, system availability maintenance and repairs.
Locations	Refer to Figure 1 in Project Application. Located approximately 4.0km east of Appin Post Office and approximately 3.0km east of nearest non-mining residence.
Time frame	Construction anticipated to commence late 2006 and be completed by January 2007. Operation to occur over ongoing life of mine.

The July 2005 Guidelines provide a process for determining the key environmental issues and the appropriate level of assessment. Completing Table 1 in the Guidelines enabled identification of potential environmental issues associated with the Water Supply Project.

Table 2(a) completion derived a prediction of the extent of the potential environmental issues associated with the proposal. The potential significance of the impacts could also be ranked.

Table 2(b) analysed the extent of potential adverse impacts in sensitive locations.

Table 2 (c) analysed the nature of the potential impacts.

The Guidelines provide for Tables 2(a), 2(b) and 2(c) to be summarised into Table 3.

A summary of the potential issues identified in the Preliminary Assessment and a definition of the studies required to avoid, minimise or manage the impacts so that risks are acceptable is included in Table 4.

Following discussions with Department of Planning Officers, only Table 4 has been reproduced in this Project Application and Preliminary Assessment.

9. Summary of the issues and the level of assessment

What are the key issues? Consider the extent of the impacts nature of the impacts environmental sensitivity of site	**What is the extent of studies required to determine the level of risk?**	**What is the extent of studies required to avoid, minimise or manage impacts so the risks are acceptable?**
Dust control during construction and along access road	Comparison with similar activities	Identify and commit to implementing standard operating control measures
Surface water quality management	Comparison with similar activities	Identify and commit to implementing standard operating control measures Integrate into existing management system Prepare Water Management Plan
Soil management	Comparison with similar activities	Identify and commit to implementing standard operating control measures Prepare Soil Management Plan
Noise during construction and during operation	Comparison with similar activities	Identify and commit to implementing standard operating control measures
Fauna impacts	Undertake fauna study in accordance with standard procedures	Undertake fauna study in previously undisturbed areas in accordance with standard procedures
Traffic impacts	Determine likely levels of traffic Comparison with existing volumes	Determine likely levels of traffic Comparison with existing volumes
Waste management	Determine waste streams and volumes and identify appropriate management response Waste Management Plan	Determine waste streams and volumes and identify appropriate management response Prepare Waste Management Plan
Archaeological, historical and heritage implications	Review previous archaeological and heritage studies	Undertake an archaeological study in previously undisturbed areas and review previous archaeological and heritage studies, incorporate findings into project design