

# Authority Correspondence



## Appendix 2



## **APPENDIX 2A**

### **Department of Planning Director-General's Requirements**



## Director-General's Requirements

Section 75F of the *Environmental Planning and Assessment Act 1979*

Application Number	06_0014
Project	<p>The proposed Anvil Hill project and associated infrastructure, which includes the:</p> <ul style="list-style-type: none"> <li>• construction and operation of a new open cut coal mine and associated infrastructure;</li> <li>• production of up to 10.5 million tonnes of coal over 21 years for domestic and export markets; and</li> <li>• rehabilitation of the mine</li> </ul>
Location	Wybong, approximately 20 kilometres west of Muswellbrook and 10 kilometres north of Denman
Proponent	Centennial Hunter Pty Limited
Date of Issue	26 April 2006
Date of Expiration	26 April 2008
General Requirements	<p>The Environmental Assessment (EA) must include</p> <ul style="list-style-type: none"> <li>• an executive summary;</li> <li>• a detailed description of the project including the: <ul style="list-style-type: none"> <li>- need for the project;</li> <li>- alternatives considered; and</li> <li>- various components and stages of the project;</li> </ul> </li> <li>• consideration of any relevant statutory provisions;</li> <li>• an overview of the environmental impacts of the project (including an environmental risk analysis) which takes into consideration the issues raised during consultation;</li> <li>• a detailed assessment of the key issues specified below and any other significant issues identified in the environmental risk analysis, which includes: <ul style="list-style-type: none"> <li>- a description of the existing environment;</li> <li>- an assessment of the potential impacts of the project, including potential cumulative impacts (particularly on flora and fauna, surface water, groundwater, noise, and air quality) that may arise from the combined operation of the project, together with the other approved and existing mines in the region;</li> <li>- a description of the measures that would be implemented to avoid, minimise, mitigate, offset, manage, and/or monitor the impacts of the project;</li> </ul> </li> <li>• a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures</li> <li>• a conclusion justifying the project, taking into consideration the environmental impacts of the proposal, the suitability of the site, and whether or not the project is in the public interest;</li> <li>• a signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading.</li> </ul>
Key Issues	<ul style="list-style-type: none"> <li>• <b>Flora and Fauna</b> – including impacts on critical habitats, threatened species, populations, ecological communities and native vegetation. A comprehensive offset strategy must be included as part of the mitigation measures for the project to ensure that there is no net loss of flora and fauna values in the area in the medium to long term;</li> <li>• <b>Noise</b> – including construction, operation, and on-site and off-site road and rail noise impacts;</li> <li>• <b>Blasting and Vibration;</b></li> </ul>

	<ul style="list-style-type: none"> <li>• <b>Air Quality</b> – including a detailed greenhouse gas assessment;</li> <li>• <b>Surface and Groundwater</b> - including detailed modelling of potential surface and groundwater impacts, a site water balance, and a detailed description of any proposed creek diversions. A surface and groundwater contingency strategy must be included as part of the mitigation measures for the project which details the measures proposed to protect the supply of water to landowners and the environment in the region;</li> <li>• <b>Rehabilitation, Final Landform and Final Void Management</b> – including a justification of the proposed final land use for the site in relation to the strategic land use objectives for the Wybong area; a detailed description of how the site would be progressively rehabilitated and integrated into the surrounding landscape; and the measures which would be put in place for the long term management of the site (including biodiversity offset areas) following cessation of mining operations.</li> <li>• <b>Heritage</b> - both Aboriginal and non-Aboriginal;</li> <li>• <b>Visual</b>;</li> <li>• <b>Traffic and Transport</b>; and</li> <li>• <b>Social and Economic</b>.</li> </ul>
<b>References</b>	The Environmental Assessment must take into account relevant State government technical and policy guidelines. While not exhaustive, guidelines which may be relevant to the project are included in the attached list.
<b>Consultation</b>	During the preparation of the Environmental Assessment, you must consult with the relevant local, State or Commonwealth government authorities, service providers, community groups or affected landowners. The consultation process and the issues raised must be described in the Environmental Assessment.
<b>Deemed refusal period</b>	120 days

## State Government Technical and Policy Guidelines - For Reference

Aspect	Policy /Methodology
<b>Soil and Water</b>	
	<ul style="list-style-type: none"> <li>• <i>Managing Urban Stormwater: Soils &amp; Construction</i> (Landcom);</li> <li>• <i>Guidelines for Fresh and Marine Water Quality and Guidelines for Water Quality Monitoring and Reporting</i> (ANZECC);</li> <li>• <i>Rehabilitation Manual for Australian Streams</i> (Land and Water Resources Research and Development Corporation);</li> <li>• <i>NSW State Rivers and Estuaries Policy - NSW Sand and Gravel Extraction Policy for Non Tidal Rivers</i> (DNR);</li> <li>• the various <i>State Groundwater Policy</i> documents (DNR);</li> <li>• <i>Approved Methods for the Sampling and Analysis of Water Pollutants in NSW</i> (DEC);</li> <li>• <i>Environmental Guidelines: Use of Effluent by Irrigation</i> (DEC);</li> </ul>
<b>Flora and Fauna</b>	
	<ul style="list-style-type: none"> <li>• draft <i>Guidelines for Threatened Species Assessment</i> (DEC);</li> <li>• <i>Threatened Biodiversity Survey and Assessment: Guidelines for Development and Activities</i> (DEC);</li> <li>• <i>Guidelines for Developments Adjoining Department of Environment Conservation Land</i> (DEC);</li> <li>• <i>Guidelines for Assessment of Aquatic Ecology in EIA</i> (DoP);</li> <li>• <i>Policy and Guidelines Aquatic Habitat Management and Fish Conservation</i> (DPI);</li> <li>• <i>NSW Groundwater Dependent Ecosystem Policy</i> (DNR);</li> <li>• <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (DPI);</li> </ul>
<b>Blasting and Vibration</b>	
	<ul style="list-style-type: none"> <li>• <i>Technical Basis for Guidelines to Minimise Annoyance due to Blasting and Ground Vibration</i> (ANZECC);</li> </ul>
<b>Noise</b>	
	<ul style="list-style-type: none"> <li>• <i>NSW Industrial Noise Policy</i> (DEC);</li> <li>• <i>Environmental Criteria for Road Traffic Noise</i> (DEC);</li> <li>• <i>Environmental Noise Control Manual</i> (DEC);</li> </ul>
<b>Air Quality</b>	
	<ul style="list-style-type: none"> <li>• <i>Approved Methods for the Modelling and Assessment of Air Pollutants in NSW</i> (DEC);</li> </ul>
<b>Heritage</b>	
	<ul style="list-style-type: none"> <li>• draft <i>Guidelines for Aboriginal Cultural Heritage Assessment and Community Consultation</i> (DEC);</li> <li>• <i>Assessing Heritage Significance</i> (NSW Heritage Office);</li> <li>• <i>NSW Heritage Manual</i> (NSW Heritage Office);</li> </ul>
<b>Traffic</b>	
	<ul style="list-style-type: none"> <li>• <i>Guide to Traffic Generating Development and Road Design Guide</i> (RTA);</li> <li>• <i>RTA Road Design Guide</i> (RTA);</li> <li>• relevant Austroad standards;</li> </ul>
<b>Rehabilitation</b>	
	<ul style="list-style-type: none"> <li>• <i>Guidelines for Rehabilitation of Land for Agricultural End Use</i> (DPI);</li> </ul>
<b>Waste</b>	
	<ul style="list-style-type: none"> <li>• <i>Environmental Guidelines: Assessment and Classification and Management of Liquid and Non-Liquid Wastes</i> (DEC).</li> </ul>





## **APPENDIX 2B**

### **Other Authority Correspondence**



# Muswellbrook Shire Council

## ENQUIRIES

PLEASE ASK FOR Chris Gidney

DIRECT 02 6549 3770

OUR REFERENCE 520.022

YOUR REFERENCE



MUSWELLBROOK SHIRE COUNCIL  
ADMINISTRATION CENTRE  
MUSWELLBROOK NSW 2333  
ABN 86 864 180 944

8 April 2005

**The Executive Director  
Department of Infrastructure Planning and Natural Resources  
GPO Box 3927  
SYDNEY NSW 2001**

Dear Sir

**Re:** Proposed Anvil Hill Opencut Coal Mine – Wybong NSW  
Attention: Mr. David Kitto

I refer to my discussions with Ms. Dinuka Govinnage and to Council's emails dated 4<sup>th</sup> and 5<sup>th</sup> April 2005 listing the issues which Council has identified for inclusion in the draft Environmental Impact Statement for the Anvil Hill opencut coalmine project and confirm those issues as follows:

1. Employment - with particular reference to the employment of local people.
2. Water – maintenance of the water balance given the proposed elimination of strategic creek and catchment areas and the concerns of local landowners over future water supply volumes.
3. The reinstatement of existing catchment areas post mining.
4. The extent of disturbed areas – the period of extraction and rehabilitation programs
5. project details and strategies through the life of the mine
6. Community consultation – transparency of the process. This was a major issue identified by Council's Environment Committee at its meeting held on 21 March 2005.
7. Use and maintenance of Council roads – this information will be required as Council is the consent authority for this issue under GTA provisions. The condition of the identified roads, pre and post development must be clearly identified for maintenance purposes.
8. Other issues relevant to the operation of the mine and including, but not limited to:  
Noise/blasting/dust/flora and fauna/heritage, cultural, artefacts  
survey/protection of existing wetland areas.
9. Centennial is to undertake a study to ensure that road traffic is directed to the extension of the western link road (i.e. the road from Denman Road to Dorset Road and the New England Highway) rather than using the Wybong Road to Muswellbrook (to eliminate the need to have mine traffic and other traffic accessing the Kayuga Bridge across the Hunter River).

This matter has already been identified with the Company. The link road is presently constructed from Denman Road to the entry to the Bengalla Mine development. The conditions of DA consent for Mt Pleasant requires that the

Company continues the link road to the Dartbrook Coal lease area with Dartbrook eventually completing the road through to the New England Highway. Centennial would or should be required to undertake appropriate road works to complete the required connection in the Roxburgh/Wybong intersection to allow traffic to access Muswellbrook via the link road as the remainder of the Wybong Road (to Muswellbrook) will eventually be closed when Bengalla/Mt Pleasant operations continue.

Please contact me on 65493770 if you require any further information.

Yours faithfully

A handwritten signature in black ink, appearing to read 'CA Gidney', written over a horizontal line.

CA Gidney  
Manager Environmental Services



# Memorandum

To	David Kitto, Manager, Mining and Extractive Industries (Attn: Mike Young) Office of Sustainable Development Assessments & Approvals GPO Box 3927, Sydney NSW 2001
From	Mark Mignanelli, Resource Access Manager, Hunter Region Phone 02 4929 9850 Fax 02 4929 6364 E-mail Mark.Mignanelli@dipnr.nsw.gov.au
Subject	Director General's Requirements for Proposed Anvil Hill Project
Our Ref	ER6366
Date	22 March 2005

I refer to your memorandum of 8 March and your discussions with Fergus Hancock at the Planning Focus Meeting (PFM) for the Anvil Hill project on 17 March 2005.

## INTRODUCTION

- The following information requirements have been prepared by the Resource Access Unit of the Department of Infrastructure, Planning and Natural Resources (DIPNR) Hunter Region as a guide for applicants/ consultants in the preparation of development proposals.
- Whilst this document has been prepared as a guide there may be circumstances that on formal referral of a proposal, DIPNR Hunter Region will require additional information to be provided.
- Details of the principal legislation administered by DIPNR (Natural Resources), gazetted Water Sharing Plans (WSP), relevant NSW State Government natural resource management policies and departmental EIS Guidelines, form an annexure to this document.
- As the development proposal lies within the gazetted Wybong WSP under the *Water Management Act 2000 (WMA)*, any proposal to access water needs to satisfy the rules of the WSP. This also applies to access to water supplies required from the Hunter River, the rules of the Hunter Regulated Water Source WSP will apply. The EIS document must explain how the rules of these WSPs apply to the site, water supply requirements and address any interception of flow which otherwise would flow into Wybong Creek and the Goulburn River.
- The *Environmental Planning and Assessment Act 1979 (EPAA)* and its *Regulation 2000 (EPAR)* underpin the planning and approval processes for all development proposals in NSW.

If you would like to discuss this matter further, please contact Fergus Hancock (NRPO), on 4929 9847.

Regards

Mark Mignanelli  
Resource Access Manager  
**Hunter Region**

## **INFORMATION**

### **Existing Approvals**

1. Details of any existing development consent
2. Details of any existing consents or approvals (permit / licence) applying to the proposal or the development site

### **Land Status/Ownership**

1. Land title description and if proposal includes Crown land (eg. bed of waterway) or Crown roads
2. Land tenure (eg. lease/ license ) and if under mining lease or Crown leasehold
3. Details of the registered owner/s of the property and applicant/s
4. Evidence of the land owner's consent (eg. to lodge development application)
5. Details of existing zonings (map to be included)

### **Site Information/ Survey**

1. Site location with north point and scale, presented at no less than 1:25000 scale for the mining project, and at no less than 1:10000 for the length of streams to be affected and the zone between the northern pit and Wybong Creek
2. Layout plan, set out at scale of not less than 1:25000
3. Survey plan of the existing site , at a scale of not less than 1:16000 for native vegetation blocks and individual mine pits for the project
4. Survey plan to provide cross sectional details along the mine pits, at sections along Big Flat Creek and Clarks Gully and for the barrier interval between the main mine pit and the bed of Wybong Creek
5. Topographic contours at not less than 5 metre intervals
6. Site features - watercourses, lakes, wetlands, vegetation, buildings, tracks, infrastructure etc.
7. Details on direction of flow of surface and groundwater, water levels, high bank, low bank, major aggradation / erosion for any watercourses, flood runners, terraces and other geomorphological features
8. Plan to identify 1: 100 year flood level
9. Plans showing surface, watercourse bed/bank long profile and piezometric gradients, with particular emphasis on the barrier between the main pit and Wybong Creek

### **Project Description**

1. Description of the proposed development, including all ancillary works (stormwater drainage, access crossings, roads or railway access, pipelines or other infrastructure)
2. Photographs (multiple frames) across the development site, with particular emphasis on any area for which a licence, permit or approval will apply. *Note:* If watercourses are impacted upon or in the vicinity of the development, include photographs also looking upstream and downstream at points of geomorphic change or at distances of no greater than 500 metres
3. Site layout plan that indicates the location of photographic reference points

### **Operational Information**

1. Operational plan detailing the ongoing operation including staging/ sequencing of the mine extraction plan, including cross sectional plans for each mine pit
2. Geotechnical engineers report on the stability of the proposal and its influence on geological or soil terrain stability and geochemistry
3. Erosion and Sediment Control Plan prepared in accordance the guideline manual 'Managing Urban Stormwater Soils and Construction'
4. Assessment of salinity hazards
5. Rehabilitation plan that details the progressive and final restoration/ rehabilitation of landform, revegetation, surface water, groundwater and maintenance

6. Monitoring program for assessment on fluvial geomorphology – with particular emphasis on the current status of Big Flat Creek, Clarks Gully and other affected watercourses, and a full justification for mining interception of any watercourse
7. Monitoring program for assessment on surface water
8. Monitoring program for assessment on groundwater, with particular emphasis on volume/salinity relationships pre-mining, through mine life and to the equilibration of groundwater across the site post-mine development – with verification of any groundwater modelling conducted on the site
9. Contingency plans, in the event that surface and/or ground water behaviour does not follow modelling predictions for the site
10. Contingency plans linked to the monitoring program, with trigger levels nominated in the EIS for assessment against water sharing arrangements in the Wybong catchment

### **Vegetation**

1. Details of any clearing of vegetation including mapping overlaid on an aerial photograph and/or a vegetation/ habitat map
2. Details of clearing methods
3. Identify species and/or elements of the vegetation structure to be cleared
4. Ameliorating measures, include details of on-going management, protection of vegetation and habitat retained for conservation purposes
5. Identification of any Asset Protection Zone
6. Vegetation Management Plan that details the conservation/ rehabilitation of riparian buffer zones on site including the removal of exotic species, revegetation with native species and the stabilisation of erosion hazards
7. Where consent to clear may not be required under the NVCA due to the exemptions or exclusions, the EIS must consider the value of the native vegetation on site, and take every precaution during planning and implementation to minimise the impact of development on native vegetation. Factors to consider include:
  - conducting a thorough assessment of flora, fauna and ecosystems,
  - avoiding development in areas of high quality remnant native vegetation or areas identified as being habitat for threatened species (including vegetation of high conservation value, riparian zones, and any area of native vegetation that has not been significantly degraded through grazing, wildfires, weed invasion or public destruction),
  - retention of native vegetation in riparian areas and on steep or rocky lands,
  - retention of better quality native vegetation in public reserves,
  - retention of native vegetation, including groundcover and understorey in all areas outside asset protection zones,
  - utilising native plant species in landscaping plans, especially those propagated from seeds collected from the local area,
  - development of a final landform which reflects the variation of ecosystem types across the site, including how riparian corridors are to be integrated into the final landform vegetation arrangement

### **Geomorphology/ Watercourses**

1. Assessment of the impact of the proposal on the existing flow regime (ie. flow quantity, velocity, frequency and duration) for all rainfall events up to a 100 year Average Recurrence Interval
2. Assessment of impact on the fluvial geomorphology of the watercourse including any erosion and sedimentation likely to be caused by the development
3. Measures to be implemented to guard against actual and potential environmental disturbances during the construction and operation of the proposal

4. Water management plan, which includes the engineering, geomorphic and ecosystem identification and protection principles to be included in the Environmental Impact Statement

#### **Groundwater**

1. Details of any proposed groundwater extraction, including purpose, location and construction details of all proposed bores and expected annual extraction volumes
2. Details of any proposed works likely to intercept groundwater
3. Description of different aquifer systems including their extent and inter-relationships (including inter-relationships with surface water bodies and dependent ecosystems)
4. Description of the flow directions and rates and the physical and chemical characteristics of the aquifers, including differentiation of different aquifers and aquifer characteristics (ionic speciation, storativities, migration rates, linkages between aquifers)
5. Description of the potential interaction of hard rock aquifer systems on the site and alluvial groundwater connected to Wybong Creek, and the presence of any geological structures acting as preferential pathways for groundwater transmission
6. Details of the predicted impacts of any final landform on the groundwater regime
7. Details of the existing groundwater users within the area of the proposal and any potential impacts on these users, including water/salt balance assessment to determine if interception of groundwater by the project will have environmental, economic and/or social benefits to water users, the community and the local environment
8. Details of the predicted highest groundwater table at the development site, and the level of natural variability across the site, and anticipated changes in groundwater conditions across the project site to the limit of depressurisation as the project proceeds
9. An assessment of the quality of the groundwater for the development site
10. Identify water application areas and method of application, and measures to address unacceptable salt accumulations across the site
11. Details of proposed method of disposal of tail or waste water
12. Details of the results of any models or predictive tools used, including inputs, sensitivity analyses and justification for any assumptions used in the development of the model(s)

#### **Surface Water**

1. Details of any proposed surface water extraction, including purpose, location of any existing pumps, dams, diversions, cuttings & levees on the site & expected annual extraction volumes, from both on site interception and external sources (eg from the Hunter Regulated system)
2. Identify sources of surface water, proportions of flow resulting from groundwater accessions, and measures to protect and enhance ecosystem integrity, and the geomorphic integrity of affected streams above, within and below the project site
3. Location and design specifications for all clean water diversions including channels, detention basins and outlet fixtures
4. Location and design specifications for dirty water / contaminated water circuit including channels, detention basins and outlet fixtures
5. Provide details regarding any dirty water / contaminated discharge resulting from the proposed development
6. Provide information on detailed water balance including inflows and imports / exports to and from the proposed development
7. Details of the integrated water management system, including an assessment of changes to the water balance under a range of conditions (including 10%, 50% and 90% wet years and severe storm events)
8. Details of the proposed use of the Hunter River Salinity Trading Scheme, including discharge procedures to match high flows, flood flows and any potential for transfer of waters to adjacent sites



## **Water Storage Structures**

1. Details of proposed water storage structures, including purpose, location, design specifications (crest, bywash, discharge, low flow bypass provisions)
2. Calculation of the catchment area, water storage structure capacity (ML) and water storage surface area.
3. Calculation of the Maximum Harvestable Right Dam Capacity (MHRDC)
4. Estimate the MHRDC as it changes over the life of the operations
5. Details of stream order (using the Strahler System)
6. Estimate of evaporation rates and annual evaporation losses
7. Details of pumps and intended extraction volumes from the water storage structure/s
8. Details of any other persons/ party to be supplied (eg. volume, rate, purpose)
9. Identify impacts on other licence users or 'basic rights'

## **Monitoring programs**

1. Details of monitoring programs, including:
  - distribution of monitoring network
  - frequency of monitoring
  - parameters to be monitored
2. Details of mitigation and contingency plans with respect to groundwater contamination and identification of triggers for implementation of these plans.
3. Detail the presence of groundwater dependent ecosystems in the surrounding areas, including the identification of flora and fauna and their dependence on groundwater.
4. Identification of required buffer zones for any groundwater dependent ecosystems.
5. Identification of auditing and reporting schedule.

## **ANNEXURE**

### **Statutory Framework**

Proposal to satisfy the statutory requirements of the following legislation administered by the Department of Infrastructure, Planning and Natural Resources (DIPNR), as applicable:

- *Rivers and Foreshores Improvement Act 1948*
- *Water Act 1912*
- *Water Management Act 2000*
- *Native Vegetation Conservation Act 1997*
- *Native Vegetation Act 2003*
- *Native Vegetation (Savings and Transitional) Amendment (Minimal Clearing Exemption) Regulation 2004*
- *Plantations and Reafforestation Act 1999*
- *Coastal Protection Act 1979*
- *Hunter Water (Special Areas) Regulation 2003*

*Note:* Acts and regulations can be accessed at [www.austlii.edu.au](http://www.austlii.edu.au)

### **Water Sharing Plans**

- Water Sharing Plan for the Hunter Regulated River Water Source
- Water Sharing Plan for the Wybong Creek Water Source

*Note:* Further information can be accessed at [www.dipnr.nsw.gov.au](http://www.dipnr.nsw.gov.au)

## Policy Guidelines

The proposal must address NSW State Government natural resource management policies, as applicable. Policies to include but not limited to:

- NSW State Rivers and Estuaries Policy
- NSW Sand and Gravel Extraction Policy for Non-Tidal Rivers
- NSW Coastal Policy
- NSW Wetlands Management Policy
- NSW Groundwater Policy Framework Document - General
- NSW Groundwater Quantity Management Policy
- NSW Groundwater Quality Protection Policy
- NSW Groundwater Dependent Ecosystem Policy
- NSW Weirs Policy
- Farm Dams Policy

*Note:* Natural resource policies can be accessed at [www.dipnr.nsw.gov.au](http://www.dipnr.nsw.gov.au)



Department of  
Environment and Conservation (NSW)

Your reference :  
Our reference : NEF16437; 273196A1  
Contact : Chrissie Esguerra, (02) 4908 6817

North East Branch

Dept. of Infrastructure, Planning and Natural Resources  
GPO Box 3927  
Sydney NSW 2001

- 7 APR 2005

Attention: Mike Young

Dear Mr Young

**Director General's Requirements for the Anvil Hill Project**

I refer to your request for the DEC's requirements for the preparation of an Environmental Impact Statement (EIS) relating to the development described above. The information specified in Attachment A must be provided in any EIS submitted in support of the development proposal to enable the Department of Environment and Conservation (DEC) to adequately assess the impacts of the development on the environment to the extent that the impacts relate to the DEC's statutory responsibilities.

Based on information provided at the Planning Focus meeting held on 17 March 2005 the DEC believes that the following issues will be the key considerations requiring detailed assessment and definitive measures to mitigate any impacts:

- (a) the likelihood of increased noise impacts due to mining operations;
- (b) the potential for dust generation during earthworks and open cut mining operations;
- (c) the mine's water balance and water management systems
- (d) the potential for impacts on threatened species; and
- (e) the potential for impacts on items of aboriginal cultural heritage.

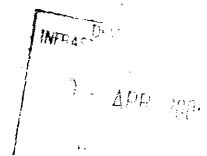
The DEC will require 4 copies of the EIS when the application is submitted. These documents should be lodged at the DEC's Newcastle office and marked to the attention of the Regional Manager, Hunter.

Please contact Chrissie Esguerra on (02) 49086817 if you wish to discuss this matter.

Yours sincerely

**MITCHELL BENNETT**  
**Head Regional Operations Unit - Hunter**  
**Environment Protection & Regulation Division**  
**Department of Environment & Conservation (NSW)**

Encl: Attachment A



## **ATTACHMENT A - ENVIRONMENT PROTECTION AUTHORITY REQUIREMENTS FOR ENVIRONMENTAL IMPACT STATEMENT – ANVIL HILL COAL MINE**

### **1. THE PROPOSAL**

The objectives of the proposal should be clearly stated and refer to:

- the size and type of the operation;
- the anticipated level of performance in meeting required environmental standards and cleaner production principles;
- the staging and timing of the proposal; and
- the proposal's relationship to any other industry or facility.

### **2. THE PREMISES**

The EIS will need to fully identify all of the processes and activities intended for the site and during the life of the project. This will include details of:

- The location of the proposed facility and details of the surrounding environment;
- The proposed layout of the site;
- Appropriate land use zoning;
- Ownership details of any residence and/or land likely to be affected by the proposed facility;
- Maps/diagrams showing the location of residences and properties likely to be affected and other industrial developments, conservation areas, wetlands, etc in the locality that may be affected by the facility;
- All equipment proposed for use at the site;
- Chemicals, including fuel, used on the site and proposed methods for their transportation, storage, use and emergency management;
- Waste generation and disposal;
- Site rehabilitation following the termination of the development

### **3. AIR**

The EIS must include a detailed Air Quality Impact Assessment (AQIA). The AQIA must identify and describe in detail all possible sources of air pollution and activities/processes with the potential to cause air pollutants including fugitive dust and odour emissions beyond the boundary of the development site. This should cover both the construction and operational phases of the development. The AQIA should include cumulative impacts associated with existing developments and any developments having been granted development consent but which have not commenced.

The EIS should demonstrate that the facility will operate within the DEC's objectives which are to minimise adverse effects on the amenity of local residents and sensitive land uses and to limit the effects of emissions on local, regional and inter-regional air quality.

The AQIA must also include, but not be limited to, the following:

- Provide a description of existing air quality, using existing information and site representative ambient monitoring data. This description should include the following parameters:
  - dust deposition;
  - total suspended particulates;
  - PM<sub>10</sub> particulate matter.

- Identification and location of all fixed and mobile sources of dust/air emissions from the development including rehabilitation. The location of all emission sources should be clearly marked on a plan for key years of the quarry development. Identify all pollutants of concern and estimate emissions by quantity (and size for particles), source(s) and discharge point(s).
- Details of the project that are essential for predicting and assessing impacts on air quality including:
  - the quantity and physio-chemical characteristics of materials to be handled, stored or transported;
  - an outline of the procedures for material handling, storage and transport;
  - the management of activities and areas with potential for impacts on air quality.

*Note: emissions can be classed as either:*

- *point (eg emissions from stack or vent) or*
- *fugitive (from wind erosion, leakages or spillages associated with loading or unloading, crushing/screening, conveyors, storage facilities, plant and yard operation, vehicle movements (dust from road, exhausts, loss from load), land clearing and construction works).*
- A description of the topography and surrounding land uses.
- Details of the exact locations of dwellings, schools and hospitals etc. Where appropriate provide a perspective view of the study area such as the terrain file used in dispersion models.
- Estimate the resulting ground level concentrations of all pollutants. Use an appropriate dispersion model to predict ambient TSP and PM<sub>10</sub> dust concentrations and dust deposition levels. Reference should be made to the EPA's *Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in New South Wales*.
- A detailed description of the methodology used to assess the air quality impacts of the development. The use of a particular dispersion model and model parameters used should be justified and discussed. The dispersion model input/output files should be included.
- Air quality impact predictions should include plans showing projected incremental levels of 24-hour average PM<sub>10</sub> concentrations, annual average dust deposition rates and annual average total suspended particulate concentrations throughout the life of the operation.

**Table 1: Health and Amenity Based Particulate Matter Standards/Goals/Criteria**

Pollutant	Standard/Goal	Source Agency
Total Suspended Particulate (TSP) Matter	90 µg/m <sup>3</sup> (annual average)	NHMRC <sup>1</sup>
Dust Deposition	4 g/m <sup>2</sup> /month (annual average)	SPCC <sup>2</sup>
Particulate Matter Less than 10 microns in Aerodynamic Equivalent Diameter (PM <sub>10</sub> )	50 µg/m <sup>3</sup> (24 hour average) 30 µg/m <sup>3</sup> (annual average)	NEPC <sup>3</sup> NSW EPA <sup>4</sup>

1 National Health and Medical Research Council.

2 NSW State Pollution Control Commission.

- 3 National Environment Protection Council. National Environment Protection Measure for Ambient Air Quality standard for reporting regional ambient air quality.
- 4 NSW EPA long term reporting goal for regional ambient air quality as published in Action for Air.

**Table 2: NH&MRC Dust Deposition Criteria (Total Solids)**

Existing Dust Level g/m <sup>2</sup> /month (annual average)	Maximum Acceptable Increase Over Existing Dust Level g/m <sup>2</sup> /month (annual average)	
	Residential Suburban	Other
2	2	2
3	1	2
4	0	1

- An assessment of cumulative air quality impacts and a description of the methodology used.
- An assessment of the potential impacts on air quality other than by dust, for example nitrogen oxide emissions from diesel equipment.
- Describe the effects and significance of pollutant concentration on the environment, human health, amenity and regional ambient air quality standards or goals.
- Describe the contribution (if any) that the development will make to regional and global pollution, particularly in sensitive locations.
- An assessment of the impacts on air quality of dust and any other pollutants generated during construction works. In this context, particular attention should be given to:
  - The nature, extent and duration of dust generating activities, e.g. earthmoving equipment, exposed surfaces, material stockpiles, unsealed trafficked areas, spillages etc.
  - Consideration of the location of dust sources, particularly their proximity to sensitive receptors prior to finalisation of any acquisition or similar processes.
- Outline specifications of pollution control equipment (including manufacturer's performance guarantees where available) and management protocols for both point and fugitive emissions. Where possible, this should include cleaner production processes.
- Include details of an air quality monitoring program to determine effectiveness of mitigation and to verify predictions, including provision for investigations in response to complaints.
- Control measures to be implemented to minimize dust generation during construction activities, haulage roads and product stockpiles.

#### 4. NOISE IMPACTS

##### Noise Assessment

The EIS must include a comprehensive noise assessment of the existing environment, potential impacts and proposed noise amelioration measures. The *New South Wales Industrial Noise Policy* (EPA, 2000) provides a guide to the methodology and assessment criteria preferred by the DEC to determine noise planning levels. The EIS must determine the existing background ( $L_{A90}$ ) and ambient ( $L_{Aeq}$ ) noise levels in accordance with the NSW Industrial Noise Policy. It must also determine the existing road traffic noise levels in accordance with the *NSW Environmental Criteria for Road Traffic Noise* (EPA, 1999), where road traffic noise impacts may occur.

The evaluation should take into account the construction and operational phases of the development over the "operating" hours proposed and take into account adverse weather conditions including temperature inversions. The assessment must identify any noise sensitive locations likely to be affected by activities at the site, such as residential properties, schools, churches, and hospitals.

The project specific noise levels for the site must be determined. For each identified potentially affected receiver, this should include:

- determination of the intrusive criterion for each identified potentially affected receiver,
- selection and justification of the appropriate amenity category for each identified potentially affected receiver,
- determination of the amenity criterion for each receiver,
- determination of the appropriate sleep disturbance limit.

The noise and vibration levels likely to be received at the most sensitive locations (these may vary for different activities at each phase of the development) should be determined. Potential impacts should be determined for any identified significant adverse meteorological conditions. Predicted noise levels under calm conditions may also aid in quantifying the extent of impact where this is not the most adverse condition.

Sound power levels measured or estimated for all plant and equipment should be clearly stated and justified. The expected noise level and noise character (eg: tonality, impulsiveness, vibration, etc) likely to be generated from noise sources during the following phases should be determined:

- site establishment
- construction
- operational phases
- transport including traffic noise generated by the proposal
- other services.

The EIS should include an assessment of cumulative noise impacts, having regard to existing developments and developments which have received development consent in the area but which have not commenced.

##### Road Transport

Road transport to and from the premises has the potential to increase disturbance at residential properties along private or public haulage routes. To assess the extent of the impact from road transport, the Noise Assessment should identify the transport route(s) to be used, the hours of operation and quantify the noise impacts. The DEC publication *Environmental Criteria for Road Traffic Noise* (DEC, 1999) describes the methods generally applied by the DEC to determine noise planning levels for road traffic noise in locations of varying sensitivity.

The methodology, data and assumptions used to assess the impact of road haulage on residential properties must be fully documented and justified. Where disturbance due to road transport is likely to exceed the recommended criteria, the EIS must describe the measures proposed to mitigate the impacts and the extent to which the measures are likely to be effective in achieving the relevant criteria.

For the assessment of existing and future traffic noise, details of data for the road should be included such as assumed traffic volume; percentage heavy vehicles by time of day; and details of the calculation process. These details should be consistent with any traffic study carried out in the EIS.

## **5. WATER QUALITY**

### General

The EIS must provide sufficient information to demonstrate that the proposed development can be operated whilst complying with the *Protection of the Environment Operations Act* (1997), in particular, the protection of water quality, including ground water, during construction, during operation and following closure of the proposed mine extension.

The methodology, data and assumptions used to design any pollution control works and assess the potential impact of the proposal on water quality, must be fully documented and justified.

The EIS must include a water management plan and site water balance incorporating the following principles:

- Maximum on-site reuse of wastewater together with the use of control and storage works to avoid any discharge of pollutants from the premises. This must include correct installation and sizing of the wastewater collection and recycling systems;
- Prevention of wet weather overflows of contaminated stormwater by collection and reuse or treatment of contaminated first flush stormwater;
- Segregation of contaminated water from non-contaminated water to minimise the volume of polluted water to be dealt with;
- Spillage controls and bunding;
- Sealing and effectively bunding material storage areas and active areas of the plant to prevent soil and groundwater contamination;
- Effective management of stormwater to segregate surface water runoff from undisturbed areas and disturbed areas;
- Maintenance of sediment and erosion control structures;
- Sealing, kerbing and guttering of trafficable areas; and
- Provision of truck washing facilities capable of washing wheels and under body of vehicles leaving the premises.

The EIS should also describe the sewage treatment and effluent management processes used on site.

### Hunter River Salinity Trading Scheme (HRSTS)

If a wastewater discharge is proposed it must be justified and it must be demonstrated that controlled discharges can be managed in compliance with the requirements of the HRSTS.



If a discharge under the HRSTS is found to be necessary and the discharge would be via a tributary of the Hunter River, the EIS must include a tributary impact assessment that addresses the following:

- Impacts on downstream landholders:
  - A list of downstream landholder/tenants including a record of permanent or seasonal activities;
  - A description and list of all crossings, culverts and other in-stream structures.
- Physical and biological impacts:
  - existing flow and stream characteristics, including current bank and bed profiles, potential flow volumes at key points of inflection within the stream course, stability of stream banks and beds and an assessment of soil types.
  - Assessment of likely impacts of proposed discharge including impacts on flow characteristics, potential for erosion of banks, bed or damage to riparian vegetation.
- Proposed measures to:
  - minimise the impacts of discharge on downstream landholders, including a discharge notification procedure;
  - reduce potential erosion hazards at vulnerable points in the stream banks, protect and maintain riparian vegetation and bank stability, and provisions for energy dissipation of discharge waters where necessary.

In cases where more than one mine discharges to a tributary, the EIS must also address the collective impacts of discharge to that tributary.

## **6. FUEL AND CHEMICAL STORAGE**

The EIS must identify any fuel or chemical storage areas to be established on the site and describe the measures proposed to minimise the potential for leakage or the migration of pollutants into the soil/waters or from the site.

## **7. WASTE MANAGEMENT**

The EIS should provide a detailed justification of the proposal. This should include:

- an assessment of the process, comparing it with other alternate waste management strategies for the wastes to be received at the facility,
- comprehensive details of the quantity and proposed sources of wastes,
- nature of the wastes, i.e., nature of the generator, variability of the waste streams, whether it has been separated/sorted at the source,
- the composition and classification of the wastes arriving at the proposed facility,
- detail the transportation, assessment and handling of waste arriving at or generated at the site,
- the measures to be used to store, treat and dispose of this material,
- classification and investigation of recycling/disposal options for residue waste (after further separation/sorting at the facility). This should also include details of proposed (temporary) storage and treatment/handling of all residue wastes including wastes classified as hazardous, industrial or Group A or B Liquid Wastes,
- full details and classification of wastes generated from the process and their disposal options, and

- characterisation of the composition of the finished products and certification that the final product will meet appropriate local and international standards for those products.

Classification and management of waste should be in accordance with the DEC's *Environmental Guidelines: Assessment Classification & Management of Liquid & Non-Liquid Wastes* (EPA:1999).

Full details of the method of transportation and an assessment of the associated environmental impacts of this transportation will be required.

## **8. MONITORING PROGRAMS**

The EIS should include a detailed assessment of any noise, air quality, water quality or waste monitoring required during the construction phase and on-going operation of the facility to ensure that the development achieves a satisfactory level of environmental performance. The evaluation should include a detailed description of the monitoring locations, sample analysis methods and the level of reporting proposed.

## **9. CONTAMINATED LAND**

The EIS must determine whether contaminated soils are likely to be disturbed during the proposed works. If contaminated soils are likely to be disturbed, the EIS should detail the measures to be adopted to protect human health and the environment, and if necessary remediate or dispose of the contaminated material. The following DEC guidelines may be helpful in assessing any actions required in respect of the proposed works:

- *Contaminated Sites - Guidelines for Consultants Reporting on Contaminated Sites* (EPA 1997);
- *Contaminated Sites - Guidelines for the NSW Site Auditor Scheme* (EPA 1998); and
- *Contaminated Sites - Sampling Design Guidelines* (EPA 1995).

## **10. FLORA AND FAUNA**

Following the site inspection on 17 March 2005 there appears to be a significant flora and fauna conservation issues associated with the site. Any proposal for development of the site will require a flora and fauna offset to compensate for the loss of habitat.

The EIS must detail the existing environment including discussion on flora and fauna characteristics. The following requirements should be addressed at a level of investigation appropriate to the site's current condition.

Your attention is also drawn to the Commonwealth legislation, the *Environment Protection and Biodiversity Conservation Act 1999*. If any species requiring consideration under this legislation may be affected by the proposal, approval for the works may also be required from the Commonwealth Department of Environment.

### Flora

A comprehensive description of the vegetation of the subject site should be prepared. This will include an assessment of the condition of the plant communities present, including the designation of conservation significance at a local, regional and State level, and an assessment of the likely occurrence of any threatened species, populations and / or ecological communities listed under Schedules 1 or 2 of the *Threatened Species Conservation Act 1995* and any Rare or Threatened Australian Plant (ROTAP) species.

A plan showing the distribution of any threatened or ROTAP species and the vegetation communities on the subject site, and the extent of vegetation proposed to be cleared should be provided. This plan should be at the same scale as the plan of the area subject to development, and preferably showing the footprint of the proposed development superimposed on the vegetation, in order to assist in the assessment of impacts on existing vegetation.

Where the assessment concludes that threatened species, populations or their habitats, or endangered ecological communities exist on or are in close proximity to the subject site, the effect of the proposed development should be determined by an assessment pursuant to Section 5A of the *Environmental Planning and Assessment Act 1979*. An assessment of the impact of the development on the plant communities and / or ROTAP species should also be provided.

A description of the measures proposed to mitigate and / or ameliorate the impact of the development on the plant communities, threatened and ROTAP species.

### Fauna

A fauna survey to identify the distribution and abundance of fauna species known or likely to use the subject site should be undertaken. This should include a description of available fauna habitats and an assessment of the conservation status of each of the faunal components at a local, regional and State level.

A plan showing the results of the above survey should be provided. The plan should be at the same scale as (or as an overlay to) the plan of the development footprint and overall site, to assist in the assessment of potential impacts of the proposal on fauna.

An assessment of the potential impact of the development on fauna should be provided.

An assessment of the occurrence or likely occurrence of threatened species or populations, or their habitats, on the subject land should be provided. Where the assessment concludes that threatened species or populations, or their habitats, exist on or in close proximity to the subject site, the effect of the proposal should be determined in accordance with an assessment pursuant to Section 5A of the *Environmental Planning and Assessment Act 1979*.

A description of the measures proposed to mitigate and/or ameliorate the impact of the development on fauna should be provided.

## **11. SURVEYS AND ASSESSMENTS**

The DEC can provide records of flora and fauna held in the Wildlife Atlas and / or Rare or Threatened Australian Plants (ROTAP) databases. The Wildlife Atlas can be accessed at <http://wildlifeatlas.nationalparks.nsw.gov.au/wildlifeatlas/watlas.jsp>. It should be noted that these databases are not comprehensive, should only be used as a guide and do not negate the need for specific site investigations.

Fauna, flora, vegetation and cultural heritage surveys should be undertaken by suitably qualified persons and the qualifications and experience of the persons undertaking the work should be provided. Surveys and assessments should not be confined to the immediate development footprint, but also include any areas where ancillary works may be undertaken, for example, any upgrade in site access roads or other supporting infrastructure.

Dates and times, site locations, survey design and methodology, analysis techniques and weather conditions at the time of the assessments and surveys must be provided. The limitations of surveys should be identified and the results interpreted accordingly.

Conclusions drawn in surveys and assessments should be substantiated by evidence resulting from those surveys and assessments. The document being supported by the surveys and assessments should reflect the conclusions and clearly state where recommendations of the survey and assessments have been incorporated in the proposal.

## **12. ABORIGINAL CULTURAL HERITAGE**

### General Issues

For the purpose of these guidelines Aboriginal heritage is considered to include "Aboriginal objects" and places of significance to Aboriginal communities.

Under the *National Parks and Wildlife Act 1974* (NP&W Act), an "Aboriginal object" is defined as any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of the area by persons of non-Aboriginal extraction, and includes Aboriginal remains. Aboriginal objects are confined to physical evidence. Aboriginal objects are sometimes referred to as Aboriginal sites.

An "Aboriginal place" is a place which has been declared so by the Minister for the Environment because s/he believes that the place is or was of special significance to Aboriginal culture. It may or may not contain physical Aboriginal objects.

It should also be noted that there are places in the landscape which have particular meaning for Aboriginal people, for example, spiritual areas or natural mythological areas. Although these areas are not protected under the NP&W Act, unless they contain physical remains of Aboriginal occupation or have been declared an "Aboriginal place", it is recommended that the potential impact of proposals on such places also be considered in the assessment process.

Should any Aboriginal archaeological sites be present in the study area, the requirements of the NP&W Act with respect to Aboriginal objects should also be considered. Under s.90 of the NP&W Act, it is an offence to knowingly damage deface or destroy Aboriginal objects without prior permission of the Director-General of the DEC.

### Assessment requirements

It should be noted that Aboriginal cultural heritage is ubiquitous in the Lower Hunter/Central Coast area, even in areas which have already been highly modified. If any topsoil disturbance or excavation is proposed then there may be potential to uncover Aboriginal objects.

The presence or absence of Aboriginal objects should be identified and the significance of the area to the local Aboriginal community must be determined. Accordingly a search of the Aboriginal Heritage Information Management System (AHIMS) should be conducted as a first step. Search results can be obtained upon written application to the Registrar, Cultural Heritage Division, on telephone (02) 9585 6471.

An assessment of the archaeological sensitivity of areas of the subject site and identification of significance of the site to the local Aboriginal community should be undertaken by an appropriately qualified person in consultation with the local Aboriginal community. This may require field survey.

Aboriginal objects and places of significance to the Aboriginal community should be detailed on a plan. This plan should be at the same scale as that of the subject site and development footprint, to assist in the assessment of the impact of the proposal on the identified cultural components.

A report discussing the results of survey and consultation, and including a description of measures proposed to mitigate impacts of the development on any identified Aboriginal objects and other recommendations, should be prepared in accordance with the *NPWS Aboriginal Cultural Heritage Standards and Guidelines Kit* and submitted with the EIS for review. Please note these guidelines are under review but should be used for reference purposes. A contingency plan that details the measures to be taken in the event that Aboriginal objects are discovered during the course of works on the subject site must be prepared.

Details of extensive consultation with the local Aboriginal community must be provided as per the DEC Interim Community Consultation Requirements for Applicants, which may be found on the DEC website at [www.nationalparks.nsw.gov.au/npws.nsf/Content/Publications](http://www.nationalparks.nsw.gov.au/npws.nsf/Content/Publications). Please note these guidelines are interim, with a view to being finalised following consultation with external stakeholders in 2005.

DEC

6 April 2005





# NSW Heritage Office

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Contact: Gary Pringle  
Telephone: 02 9873 8564  
gary.pringle@heritage.nsw.gov.au  
File: S90/01861/003  
Our Ref: HRL33714  
Your Ref: NA

Mike Young  
Senior Environmental Planning Officer  
Mining and Extractive Industries  
Major Development Assessment  
Department of Infrastructure, Planning and Natural Resources  
GPO Box 3927  
SYDNEY 2001

Dear Mr Young


## **ANVIL HILL PROJECT – ENVIRONMENTAL IMPACT STATEMENT**

Thank you for your letter of 8 March 2005 inviting a representative of the Heritage Office to attend a Planning Focus Meeting to discuss the subject proposal. Unfortunately a representative of the Office was unable to attend the meeting.

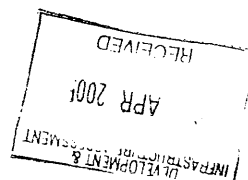
However, it is noted from the Planning Focus Document that a systematic archaeological survey of the Project Area and a detailed Historic Heritage Assessment are to be incorporated into the EIS. The Heritage Office supports these undertakings and will be pleased to comment further when the EIS is given public notification.

Please contact Gary Pringle on 98738564 for further discussion in relation to this matter.

Yours sincerely

 5/04/05

**VINCENT SICARI**  
Principal Heritage Officer







In reply, please send to: Singleton  
Our reference: FN00-01180S0 GM:SA  
Your reference: DINUKA GOVINNAGE  
Contact: Garry Moore (02) 6572 4344

DEPARTMENT OF INFRASTRUCTURE PLANNING & NATURAL  
RESOURCES  
GPO BOX 3927  
SYDNEY 2001

23 March 2005

ATTENTION: DINUKA GOVINNAGE

Dear Madam

ENQUIRY NO. TENQ05-00397S3  
LOT 218 DP 750968 ANVIL HILL PROJECT  
PLANNING FOCUS MEETING

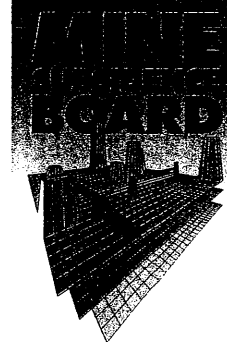
Thankyou for your letter of 11<sup>th</sup> March, 2005 seeking the Mine Subsidence Board's input to the preparation of an Environmental Impact Statement (EIS) for the above development. The Board did not attend the Planning Focus Meeting on the proposed project.

The site is located within the Muswellbrook Mine Subsidence District. It is therefore a requirement of Section 15 of the Mine Subsidence Compensation Act that all surface improvements and relocation of surface improvements are approved by the Mine Subsidence Board.

The information provided in the Planning Focus Document indicated that the development will be an open cut mining operation. The Board would request that the EIS address the impact of mine subsidence on existing structures as covered under the Mine Subsidence Compensation Act. Some of the issues which may need to be addressed are attached. If there is to be no impact from mine subsidence, then this should be clearly outlined in the EIS.

Some of the issues, which you may consider addressing, are:

1. Prediction of maximum subsidence, strains, tilts and curvatures.
2. Assessment of likely impacts of coal extraction.
3. Type of surface structures and likely damage.



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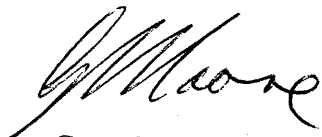
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Company  
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Lic 12871  
Standards Australia

4. Measures which might be employed to mitigate the effects of mine subsidence.
5. Details regarding the angle of draw.
6. Vibration monitoring and likelihood of extraction related vibration.
7. Effect of subsidence on farm dams, ground water systems and survey marks.
8. Subsidence monitoring.
9. Pre-mining inspections.
10. Mine Subsidence Board requirements.
11. Preparation of a Subsidence Management Plan.
12. Identification of coal resource potential under and around proposed infrastructure.

Yours faithfully



Garry Moore  
District Manager



Mr David Kitto  
Manager  
Mining and Extractive Industries  
Major Development Assessment  
Department of Infrastructure, Planning & Natural Resources  
GPO Box 39  
SYDNEY NSW 2001

**FAXED**  
4.4.05

Dear Mr Kitto

**ANVIL HILL OPEN CUT COAL MINE PROPOSAL  
PLANNING FOCUS RESPONSE**

I refer to the Planning Focus Meeting for the above project which was held on 17 March, 2005 at Muswellbrook.

The presentation made by the proponents at the Planning Focus meeting was very similar to the Conceptual Project Development Plan presentation made previously to the Department and is considered a solid starting point for preparation of the EIS. The following comments are provided in response to the call at the conclusion of the meeting for input to assist in the assembly of Director-General's requirements for an Environmental Impact Statement for the project.

The proposed open cut development by Centennial Hunter Pty Limited (Centennial) lies within Assessment Lease AL9 granted under the *Mining Act 1992* in November 2004, and includes some small residue areas of Exploration Licence 5552, which are not included in AL9. The company has indicated it proposes to submit a Mining Lease Application for the project area in due course.

As Coal is a prescribed mineral under the *Mining Act 1992*, the proponent is required to obtain a mining title from the Department of Primary Industries-Mineral Resources (DPI-MR) in order to mine this mineral. Any mining title granted for this proposal will be subject to standard and special conditions, with the preparation of a Mining Operations Plan and Annual Environmental Management Review being specific requirements for any lease that may be granted. Relevant health and safety issues will need to be dealt with in accordance with the requirements of the *Coal Mine Health and Safety Act 2002* and the *Coal Mines Regulation Act 1982*.

ENCLOSURE  
APG 100

The following comments are directed at specific areas of Departmental responsibility.

## **COAL RESOURCES**

The company is required to submit a detailed Resource/Reserve Statement for the project. This Resource/Reserve Statement should include an overview of:

- The exploration and geology of the area,
- Coal seam geology and coal quality,
- Estimated in situ coal resources for all seams within the area and the proposed mining area, including the tailings pit, tailings dam, rail loop, 500kV power transmission line and site facilities,
- Recoverable and Marketable Coal Reserves within the Coal Tenements Area (as referred to in the Planning Focus Document Anvil Hill March 2005) and focusing on the proposed mining area, and
- Limits of proposed mining and parameters used to define these limits.

The Resource/ Reserve estimates should be in accordance with the "JORC Guidelines for Estimation and Reporting of Australian Black Coal Resources and Reserves".

The Statement should be submitted to Department of Primary Industries–Mineral Resources in digital format, prior to the completion of the EIS for the proposal. The Statement would be confidential to the Department.

The EIS should include a brief summary of the information contained in the Resource/ Reserve Statement.

## **MINING TITLES**

A mining lease will be required for the area of the mining activity and associated mining purposes. Mining leases have as a standard condition the requirement to lodge a Mining Operations Plan (MOP) and this will be used to assess details of the actual mining and rehabilitation. Another condition of mining leases also requires the lodgement of an Annual Environmental Management Report (AEMR) which essentially covers detailed reporting on rehabilitation and environmental management.

The proponent should be aware that if there are any areas of Crown Land (or equivalent) on which Native Title has not been extinguished, the provisions of the *Commonwealth Native Title Act* will need to be complied with before a mining lease is granted.

## **MINES SAFETY**

Under the provisions of the *Coal Mine Health and Safety Act 2002* and the *Coal Mines Regulation Act 1982*, the Department of Primary Industries- Mineral Resources has legislative responsibility for overseeing the safety operation of

Mining activities. In particular, the section of the EIS that deals with safety issues should incorporate the following:

- A commitment to compliance with the *Coal Mine Health and Safety Act 2002* and *Coal Mines Regulation Act 1982*.
- Nomination of a person (or persons) as Operator and Manager as required by the *Coal Mine Health and Safety Act 2002* and *Coal Mines Regulation Act 1982*.
- Details of the procedures the proponent intends to adopt in addressing any safety issues identified by an Inspector or Mine Safety Officer or an authorised Government Official as specified in the *Coal Mine Health and Safety Act 2002*.

## **ENVIRONMENTAL ISSUES**

The Department Primary Industries-Mineral Resources (DPI-MR) understands that a Mining Lease Application (MLA) will cover the rail load-out areas and rail loop. This will assist with integrated rehabilitation and allow reporting to be captured in the Mining Rehabilitation Environmental Management Plan documents. DPI-MR recommends that the proponent meet with the Department's Environmental Sustainability Branch to further discuss the MLA boundary definition and other matters outlined below. (Please contact Monique McDonald, Regional Environment Officer, Environmental Sustainability Branch, DPI-MR on telephone (02) 6572 1899.)

## **GEOCHEMICAL ANALYSIS**

To understand and enable efficient management of the overburden, coal and washery rejects, the materials should be analysed by a certified laboratory for spontaneous combustion potential.

## **SOILS, LAND CAPABILITY AND AGRICULTURAL SUITABILITY**

The EIS must clearly define the classes for Land Capability and Agricultural Suitability. The proponent must plan final rehabilitation to reinstate the Land Capability classes, and the landscape units must be clearly identified in the EIS final rehabilitation plans. For reinstatement of Classes 1, 2 and 3, selective soil profile management is required. To efficiently manage soils and land capabilities, the proponent should apply 'Best Practice' for soil handling and management. Selective stripping should be considered, as the seedbank may differ considerably within the soils of the different woodland communities and the native grassland.

The proponent needs to complete extension soil profiling as there appears to be limited topsoil available. The EIS should outline alternative resources that may be utilised in the rehabilitation program due to the limited topsoil available within the existing topsoil. To achieve 'Best Practice', the utilisation of cleared vegetation in the rehabilitation program should be detailed in the EIS.

Additionally, the EIS should identify the options for "green" offsets within the proposed areas. The proponent is encouraged to assess the opportunity of compensation areas on the external areas as well as the disturbed areas.

DPI-MR requests that the proponent meets with officers of the Department's Environmental Sustainability Branch to review the conceptual rehabilitated final landform plans prior to the EIS being submitted.

### **SURFACE WATER MANAGEMENT AND CREEK DIVERSIONS**

DPI-MR has identified water management as being a major issue for mine planning. The EIS should detail, but not be limited to, the:

- Detailed hydrological study of the impacted catchment areas
- Integration of water sharing and water release strategies for downstream users
- Contingencies for water storages and diversions around the mine pits
- The options for capturing and diverting water from Anvil Hill Creek and catchment area
- Control and management of suspended sediment in runoff water and creek diversions
- Detailed design and ecology of the creek diversions, as well as the rehabilitation of the diversion once Big Flat Creek is reinstated.
- Extensive review of flood control strategies to eliminate flooding of the mining operations

DPI-MR requests the proponent hold further technical committee meetings with the Department of Infrastructure, Planning and Natural Resources (DIPNR), Catchment Management Authority and DPI-MR (Environmental Sustainability Branch) to commence discussions on the options available to the proponent. DPI-MR (Environmental Sustainability Branch) also suggests that the proponent refers to a relevant presentation on "Geomorphic Design and Rehabilitation of Stream Diversions" given at the Hunter Coal Environment Group meeting in March 2005 by Mr Ross Hardie, Principal Engineer (Natural Resources Group) for Earth Tech Engineering P/L. Mr Hardie is regarded as a leading authority on river diversion and remediation works. *(A copy of this presentation has been separately provided electronically to both DIPNR and Centennial).*

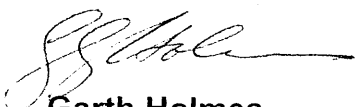
### **SPECIES IMPACT STATEMENT**

The proponent will conduct extensive studies to support the Species Impact Statement which should detail, but not be limited to, the:

- Impact minimisation
- Habitat restoration
- Pre-clearing protocols for fauna

If you have any further queries on this matter please contact me on (02) 8289 3921.

Yours sincerely

 4.4.05

**Garth Holmes**  
**Manager Minerals Development**