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Our Ref: D2010/04459
Your Ref: 10/14905

Mr Howard Reed
Manager, Mining Projects
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Attention: Naomi Nelson/Clay Preshaw

Dear Mr Reed

**ENVIRONMENTAL ASSESSMENT NRE NO. 1 COLLIERY
PRELIMINARY WORKS PROJECT APPLICATION NUMBER MP 10_0046**

I refer to your letter dated 22 October 2010 inviting the Sydney Catchment Authority (SCA) to make a written submission and provide any recommended conditions for approval of the NRE No. 1 Colliery-Preliminary Works Project. The SCA has prepared the attached submission which includes recommended conditions.

The SCA does not consider it good practice to separate elements of the proposed new mining area into separate projects resulting in the assessment being undertaken in a piecemeal fashion. Prior approval of the Wonga Mains Driveage could result in considerable pressure being placed on assessing and approval authorities to approve future mining projects which could compromise water quality and water quality. The SCA considers that it would be more appropriate for the driveage to be assessed in conjunction with the assessment of future mining as part of Stage 2. This would enable the entirety of the impacts of the project to be assessed, and a more integrated approach to be taken to the management of impacts.

Further, based on the information contained in the Environmental Assessment (EA) report, the SCA is not satisfied the Proponent has demonstrated the Project can achieve the SCA's performance measures. The SCA is concerned there are discrepancies in the EA including different mine layouts for the V-Mains; inconsistent Wallandoola Creek characterization plans; and no groundwater monitoring within the V-Mains area. In addition there is a reported loss of water in the vicinity of the V-Mains over subsided Bulli Seam workings.

The SCA would appreciate being involved in any further environmental assessment and consultation process associated with the application and the opportunity to comment on any draft conditions. The SCA in particular requests that any Subsidence Monitoring Program, Catchment Monitoring Program, Water Management Plan, Land Management Plan, Asset Management Plan, Adaptive Management Plan, Contingency Plan and Rehabilitation Management Plan and associated components and drawings be provided to the SCA for review and comments.

If you wish to discuss any matter raised in this letter please do not hesitate to contact Dr Bob Banens on 4724 2458 or via e-mail robert.banens@sca.nsw.gov.au or Malcolm Hughes on 4724 2452 or via e-mail malcolm.hughes@sca.nsw.gov.au .

Yours sincerely

 13/12/10

GREG SHEEHY
Senior Manager, Sustainability

**SUBMISSION TO THE DEPARTMENT OF PLANNING
from
SYDNEY CATCHMENT AUTHORITY**

PART 3A PROJECT – NRE No. 1 COLLIERY – PRELIMINARY WORKS

DECEMBER 2010

1. INTRODUCTION

The Sydney Catchment Authority (SCA) has specific roles, objectives and functions specified in the *Sydney Water Catchment Management Act, 1998* (SWCM Act). In particular the SCA has certain functions including:

- managing and protecting the catchment areas, and the dams, storages and canals; and
- protecting and enhancing water quality.

The SCA is a major stakeholder with respect to the proposal because:

- a significant component of the proposal is located under lands owned by the SCA;
- SCA has special responsibilities including regulatory under the SWCM Act over its land holdings which form a significant portion of the land under which mining is proposed. This area is the Metropolitan Special Area;
- the proposal has the potential to significantly impact upon catchment infrastructure works owned and operated by the SCA; and
- the proposal has the potential to adversely affect water storages, water quality and quantity, watercourses and the ecological integrity of the Special Area.

The SCA has no statutory planning role with respect to the proposal. However, approval of the SCA is required for entry to and conducting activities in the Special Areas. Specific SCA approval is required by the provisions of the SWCM Act and the Sydney Water Catchment Management Regulation 2008.

This submission relates to that part of the Project which is located within the SCA's operational area, or which may otherwise affect the SCA's operational area or catchment infrastructure works.

The SCA's Principles for Managing Mining Impacts

The SCA Board has endorsed the SCA Mining Principles that provide a framework, consistent with the SCA's statutory role, for consideration in the assessment and management of any current or proposed mining activity and impacts on the SCA's catchment infrastructure works and its area of operations including special areas. The principles are:

1. Quantity of water is protected

Fundamental to fulfilling the SCA's role is protecting the yield of the catchments and storages. Mining and associated activities have the potential to impact yield from the catchment to the stored waters, and affect the integrity of water supply assets and the catchment lands.

In assessing the impact of mining activities, mining proponents must demonstrate to the SCA that there is a very low risk of water loss from storages and that appropriate safeguards are in place to prevent any loss. Mining under or within the vicinity of storages has the potential to create pathways for stored waters to enter mine workings. The SCA would oppose any mining under or within the vicinity of water

storages, unless it can be demonstrated there is an acceptable very low risk of water being lost through mining activities.

Mining and associated activities should not result in a reduction in the quantity of surface and groundwater inflows to storages or loss of water from storages or their catchments.

2. Quality of water is protected

Mining has the potential to affect the quality of water in watercourses and groundwater systems. The potential impacts of mining and associated activities vary according to a range of geographic factors, including proximity to watercourses and upland swamps. While subsidence movements can now be predicted with reasonable accuracy, predicting the consequences of these movements on watercourses and upland swamps is complex and problematic.

Mining and associated activities should not result in a reduction in the quality of surface and groundwater inflows to storages.

3. The structural integrity of SCA infrastructure is maintained

The SCA opposes mining (i.e. first or second workings) under any prescribed dam owned by the SCA. Mining should only result in negligible impact within the Dams Safety Committee notification area or under crucial assets.

The integrity of the SCA's infrastructure must not be compromised.

4. Adoption of Best Practice and Compensation for SCA Costs and Losses

In the SCA area of operations the SCA supports a precautionary and adaptive management approach and the adoption of best practice and recommendations by the 2008 NSW Southern Coalfield Inquiry relating to improved assessment and regulatory processes, subsidence impact management, prediction of subsidence effects and impacts, and suitable quality environmental baseline information.

Proponents of coal mining activities should be accountable for all aspects of the planning and conduct of their operations, and the mitigation and rehabilitation of any impacts resulting from their operations. Operators of coal mining or associated activities should be responsible for assessing, monitoring, avoiding, mitigating, repairing, remediating or rehabilitating impacts attributable, or likely to be attributable, to their activities. They are liable for all costs associated with those activities.

The SCA expects to be financially compensated for any economic loss resulting from loss of catchment yield or stored waters attributable, or likely to be attributable, to the impact of coal mining within, or under, the SCA's Special or Controlled Areas.

The SCA expects mining and associated activities to be conducted in accordance with regulatory requirements and adoption of best practice, and to be compensated for any costs or economic loss resulting from the impacts of mining on infrastructure, catchment yield or loss of stored waters.

Location of Mining Area and Relationship to Areas of Interest to the SCA

The Project general arrangement and areas of interest to the SCA and the reasons for interest are summarised below:

- 309 Panel and V-Mains - this part of the Project has the potential to impact on the parts of Wallandoola and Lizard creeks and their associated catchments including upland swamps. All of these lands are owned by the SCA.

- H Panel, Wonga Mains Driveage, P&R Mains Drifts and gateroads for longwalls 4 and 5 – this part of the Project is located within the Cataract Dam Notification Area of the NSW Dams Safety Committee. Mining in these areas has the potential to impact on Cataract dam, Cataract reservoir, the Cataract River and its associated catchments. The dam, reservoir and all of the lands are owned by the SCA.

In the SCA area of operations the SCA supports a precautionary and adaptive management approach, and the adoption of best practice and recommendations by the *2010 Planning Assessment Commission Report on Bulli Seam Operations* and *2008 NSW Southern Coalfield Inquiry* relating to improved assessment and regulatory processes, subsidence impact management, prediction of subsidence effects and impacts, and appropriate environmental baseline information.

The SCA notes that a Subsidence Management Plan approval for the V-Mains has been granted by NSW Industry & Investment on 23 August 2010. An approval for the extraction of pillars in the T&W Mains (which includes 309 Panel) has been granted to Bellpac No. 1 Colliery (previous owner) by Mineral Resource NSW on 1 March 2004 - valid until 31 December 2008 which has been extended until December 2010.

2. PERFORMANCE MEASURES FOR KEY ASPECTS

In assessing impacts the SCA has identified specific performance measures and used terms defined in the Part 3A approval for the Metropolitan Coal Project for “negligible” and “safe, serviceable and repairable”.

Catchment Infrastructure Works

- Cataract Dam wall – Zero impact.
- Fire trail No. 8 – “Safe, serviceable and repairable”.

Water Resources

- Catchment yield to Cataract Reservoir and the Cataract River – “negligible” reduction in the quality and quantity of water resources reaching the Cataract River and Cataract Reservoir, and no connective cracking between the land surface and the mine.
- Cataract Reservoir – “negligible” leakage from the Cataract Reservoir, and “negligible” reduction in the water quality of Cataract Reservoir.

Watercourses

- Wallandoola Creek and Lizard Creek and associated swamps – “negligible” environmental consequences - that is, no diversion of flows, no change in the natural drainage and behaviour of pools, minimal new iron staining, minimal gas releases and continued maintenance of water quality at a pre-mining standards.

3. SCA's ASSESSMENT COMMENTS AND RECOMMENDATIONS

The SCA has undertaken a detailed review of the EA and considers that the EA has generally addressed the SCA's significant issues of concern. The SCA considers the Project is consistent with its mining principles.

The SCA has the following specific comments:

- First workings proposed for the H Panel, Wonga Mains, P&R Drifts, and gateroads for proposed longwalls 4 and 5 leave the coal pillars intact with the overlying strata fully supported resulting in 'zero subsidence' and negligible movement within measurement accuracy. While this could be the case, the SCA nevertheless

requests a monitoring management plan particularly for H Panel (which partially underlies Cataract Reservoir) including a ground and catchment movement survey, and a water balance in workings analysis, to ensure that movement does not exceed predictions and no unusual events are occurring.

- The SCA notes that the subsidence predictions have not changed despite a change in mine layout between 2008 and 2010 (see Volume 2, Annex F, Page 27, Figure 11; and Volume 1, Pages 127 & 130, Figures 8.2 and 8.3). Also the cumulative subsidence induced from surrounding previously mined workings for V-Mains has not been addressed in the EA. This questions the validity of subsidence impact predictions. The SCA requests that the cumulative environmental impacts for V-Mains be addressed during the preparation of extraction plans. Furthermore it is not clear whether the additional tilt and strain associated with the dyke has been accounted for in the impact predictions on Wallandoola and Lizard creeks.
- The SCA has identified an inconsistency in the documentation in relation to Wallandoola Creek in that the sections of Wallandoola Creek shown in Figures WC1 to WC7 (Annex G) do not correspond to the Wallandoola Creek layout in Figure 8.2 (Volume 1, Page 127), aerial photographs or site inspection observations. This questions the validity of surface water impact predictions.
- Stream flow monitoring of Lizard Creek in the vicinity of V-Mains and adjacent to 309 Panel, and Wallandoola Creek upstream and downstream of V-Mains has been undertaken above existing workings since September 2009. The monitoring has shown loss of water and increased drainage over the subsided Bulli Seam workings at some locations.
- The SCA notes that the PAC 2010 report on *Bulli Seam Operations* has recommended that the downstream section of Wallandoola Creek be afforded 'Special Significance' and recommends a performance criterion of negligible subsidence related impact. Given the discrepancies in the V-Mains mine layout and the characterisation of Wallandoola Creek; uncertainty regarding subsidence and surface water impacts predictions; and reported increased drainage over existing subsided Bulli seam workings adjacent to Lizard and Wallandoola creeks, the SCA considers that there is a lack of certainty that the predicted negligible environmental consequences on stream flow and stream water quality of Wallandoola Creek and associated swamps would be achieved.
- The SCA notes that the EA predicts no observable flow-on effects on aquatic habitats, or their biota or groundwater dependent ecosystems such as swamps and dependent species, within or immediately downstream of the V-Mains area. The SCA considers that, given the uncertainty regarding subsidence and surface water impacts for V-Mains area, the predictions for aquatic ecology need to be reviewed.
- Groundwater monitoring data is based on bores located within existing workings and adjacent to the V-Mains. No groundwater monitoring has been undertaken within the V-Mains area except for the installation of a single shallow swamp piezometer. The SCA recommends additional groundwater bores be installed within the V-Mains area and that monitoring be undertaken as part of an environmental monitoring program.

The SCA recommends:

- a review of the subsidence, surface water and aquatic ecology impacts based on correct mine layout and creek characteristics;
- a review of the monitoring data and predictions relating to measured loss of water in the vicinity of the V-Mains over subsided Bulli Seam workings;
- the inclusion of an adaptive management plan in the extraction plans that is linked to monitoring programs that identifies the immediate changes required to the mine plan and operation in the event that performance criteria are not met.

The SCA notes that the Wonga Mains Driveage is designed to obtain access to future mining areas. The SCA does not consider it good practice to separate elements of a proposed new mining area into separate Projects resulting in assessment being undertaken in a piecemeal fashion. The EA states that “NRE acknowledges that the construction of these access roadways and gateroads does not guarantee approval of longwall mining in the Wonga east area”. Nevertheless, it is considered that prior approval of the driveage could result in considerable pressure being placed on assessing and approval authorities to approve future mining projects which could compromise water quality and water quality. The SCA considers that it would be more appropriate for the driveage to be assessed in conjunction with the assessment of future mining as part of Stage 2. This would enable the entirety of the impacts of this project to be assessed, and a more integrated approach to be taken to the management of impacts.

4. SCA’s RECOMMENDATIONS AND SUGGESTED CONDITIONS

The SCA requests the Proponent be required to respond to the matter raised above, and that this additional information be considered by the Department when preparing the Director General’s Environmental Assessment Report.

The SCA requests the project approval if granted, include a range of conditions to prevent or minimise to negligible or minor levels impacts upon Cataract Dam, other SCA catchment infrastructure works and the Cataract River and catchment, including watercourses and upland swamps. The following requirements should be included in the approval conditions:

- A schedule of Performance Measures – the SCA expects the approval to include a schedule of performance measures for water resources; watercourses and built features (see Section 2 above for specifics). It is important that specified performance measures are measurable, meaningful and compliance testable.
- The development of a Catchment Monitoring Program relevant to this project prepared in consultation with and to the satisfaction of the SCA. The program must be approved within 3 months of an approval or prior to the Proponent carrying out any second workings whichever is the earliest.
- The preparation of an Extraction Plan – the SCA expects the approval to include a requirement for extraction plans similar to that specified in the Metropolitan Coal Project approval (Schedule 3 – conditions 6 and 7) – but relevant to this project. The Extraction Plan, which should include a Water Management Plan, a Land Management Plan, a Contingency Plan, a Subsidence Monitoring Program, and an Adaptive Management Plan that is linked to monitoring programs, should be prepared in consultation with and to the satisfaction of the SCA.
- A monitoring management plan particularly for H Panel; e.g. ground and catchment movement survey, water balance in workings, etc to ensure that movements are not exceeding predictions and no unusual event is occurring.
- Rehabilitation Objectives – the Proponent shall achieve the following rehabilitation objectives:
 - For all SCA catchment infrastructure works – repair/restore to pre-mining condition or equivalent;
 - For all 3rd order watercourses and above located within the project area– restore surface flow and pool holding capacity as soon as reasonably practicable to pre-mining levels.
- The preparation of a Rehabilitation Management Plan in consultation with and to the satisfaction of the SCA, prior to carrying out second workings.
- The identification of Environmental Offsets that should be required to compensate for either predicted or non-predicted impacts on natural features, where such impacts are non-remediable.

Extraction Plans and Catchment Monitoring Program must consider the relevant recommendations of Sections 18.2.2, 18.2.3, 18.2.4 and 18.2.5 of recent report on *Bulli Seam Operations* (PAC July 2010).