Dams Safety Committee
NEW SOUTH WALES
ABN 55 079 703 705

20 September, 2012

Major Projects Assessment
Mining and Industry Projects
GPO Box 39
SYDNEY NSW 2001

Our ref: 10.121.046
10.123.129
Your ref:

**Attention: Clay Preshaw**

**Environmental Assessment**
**NRE No.1 Colliery – Application for s75W Modification (MP 10_0046Mod1)**
**Preliminary Works Project -- Longwalls 4 & 5, Maingates 6, 7 & 8**

The Dams Safety Committee has received a copy of the Application to modify NRE #1 Colliery's Preliminary Works Project approval. The area addressed in the modification impacts on the Cataract Notification Area. Maingates 6, 7 & 8 enter the Notification Area.

Cataract Dam is a major water supply dam which is prescribed by the Dams Safety Committee. The Committee is currently regulating mining within the Cataract Notification Area which surrounds the Cataract Dam, using its powers under the Dams Safety Act 1978 and the Mining Act. The proposed mining lies partly within the notification area and as such an application to the Dams Safety Committee to mine within the notification area will be required.

Together with concerns for the safety of the Dam itself, the Committee has concerns for the security of the stored waters.

These concerns are heightened by the lack of information generally and the inaccuracies in the subsidence report.

Information the Committee requires before making a decision about mining within a Notification Area includes but is not limited to:

- A geology report on the area
  - There is none in the EA.
    - From the reports in the EA, which included past workings, it is obvious that structures have interrupted the Bulli and Balgownie workings in the Wonga East area. There is no discussion of the likely impact of structures on subsidence or the possible loss of storage via a structure to the mine.
    - There is some mention of the water courses in the Wonga East area being in the Bulgo Sandstone. That is the aquitard

Postal: NSW Dams Safety Committee
PO Box 3720
Parramatta NSW 2124
Australia

Address: Level 3
10 Valentine Avenue
Parramatta NSW 2150
Australia

Phone: +61 (02) 9895 7363
Fax: +61 (02) 9895 7354
http: www.damsafety.nsw.gov.au
email: dsc@damsafety.nsw.gov.au

Bald Hill Claystone is not present. There is no surface geology to confirm this fact.
        - Impacts on ground water and surface waters depend on the Bald Hill Claystone being intact. There is no geology report that says that it is present in the area.
- A groundwater model that addresses the possibility of losses from the reservoir as a result of mining.
    - Pathways for loss
        - Via structure to the workings.
        - Change in water pressure in Hawkesbury SS in Wonga East area results in a pressure differential that drives water from reservoir to escarpment.
        - Increased permeability of the Bulgo Sandstone in the beds of watercourses in the Wonga East area drains water to the workings.
    - Ground water model has up to 50m of draw down in the Bulli Seam after mining in the East Area. As the Bulli seam has been extensively mined in this area it would have zero head. As it has zero head it therefore does not have 50m of head to lose.
    - It is assumed that the Bald Hill Claystone maintains its aquitard properties (GeoTerra). Bald Hill Claystone does not appear to exist in the Cataract Creek.

The DSC has previously approved mining in the Bulli Seam below Cataract Reservoir at NRE#1 Colliery. Part of the approval to mine the Bulli seam below the reservoir included the installation of plugs to isolate the goaf area below the reservoir from the mine portals. The possibility of a connection from the Lake via the mine to the escarpment has not been addressed. The proposed drivage of the Wongawilli roads below the Bulli and Balgownie extraction will bypass the location of plugs in the Bulli seam (proposed extraction is to the east of plug location), designed to contain an inflow of lake water into the mine and prevent it from draining the reservoir. The lack of contingency planning for a worst case (and complete reliance on the subsidence prediction that no hydraulic connection to the surface will be made) is of great concern to the Committee.

If you have any queries in this regard please contact Bill Ziegler on 9895 7280.

Yours faithfully,

SRKnight 20/9/12.

Steve Knight
DSC Executive Engineer