

**Submission to the Planning Assessment Commission
re Russell Vale Colliery Underground Expansion
Project (MP 09_0013) January 2015**

From Keith Toanetti BE Mining Engineering (Coal)



The premier Neville Wran 30 yrs. ago was to open the new electrified rail to Wollongong but had to be delayed for several months because of damage to viaduct caused by closeness of tunnel from coalcliff mine – this cost millions to rectify and eventually after a long settlement the subsidence trust was bankrupt

And now they are at it again with an ever more dangerous proposal

This time it is to extend the Russell Valley mine so that it is only a couple of hundred meters from Cataract dam.

Mr stone head of operations for the company, has had the honesty to admit that they could not guarantee that the project would not effect the dam - but be reminded that the dam wall itself subsided 3cm due to previous workings which were a couple of km from the wall.

Whilst a lecturer at the University of NSW I did studies on the stresses in cracked beams (Voussoir) and whilst these studies were reliable e.g. for the arch above a tunnel

.they were very poor for predicting the behaviour of the subsidence as the surface was approached because much of this region is mixed up with rubble – that is why the swamps drain away rather than just fill up the cracks . So prediction of the effect of the effect of the proposed mining on the dam shores is so difficult.

But even more difficult and important is assessing the probability that a hydraulic connection will be made to the mine- that is the water in the dam is directly connected to the mine workings.

If this were to happen we would be presented with nothing less than a catastrophe!

Firstly you should note that the pressure of the water in the mine is not just the huge pressure at the bottom of the dam but also a pressure equivalent to a column of water of height from the top of the dam to the level of the mine!

I should point out that proposed workings will have to go through a major fault and this itself could lead to a hydraulic connection .

If this does happen and the water flows from the mine again another catastrophe as houses creeks and schools are flooded

Furthermore if the mine has this connection the whole of this part of the escarpment will be effected and have a devastating effect on stability – don't forget that this is a slip area – which means that you have rocks just held in place by clay and weak shale – saturation of this zone from within the escarpment would most certainly produce massive avalanches !

land slides

What contingency plan has been presented to deal with this situation and who would pay for it and compensate the damage caused to local residents?