I have come here to the PAC today to object to the proposed Underground Expansion Project.

The proposal that we are considering today proposes to mine beneath the Special Areas of Sydney's Water Catchment, the inner sanctum of the catchment set aside to protect the quality and quantity of water, and within 200m of Cataract Dam itself, using longwall mining which will invariably cause subsidence cracking and loss of water. This is unacceptable for a number of reasons:

The Dept of Planning and Environment's Addendum report to the PAC states on pages 11 to 13 that Wollongong Coal engaged two consultants to consider the impacts of the proposed mining on the baseflow of surface water, including the volume of water in Cataract Creek, Cataract River and Bellambi Creek.

The first consultant is "WRM". The Department says that WRM has produced a model that presents a "worst case scenario" of stream flow loss.

WRM concludes an average loss of 7.3ML per day.1

To establish a context for this I looked up the average water use for individuals in Greater Sydney according to Water NSW. It's 297 litres of water per day. Therefore 7.3 ML per day is the equivalent water usage of nearly 25,000 people.

The second consultant is Geoterra/GES. Geoterra produced a Groundwater assessment that predicts the likely impacts of the Underground Expansion project to be a baseflow loss from the rivers and creeks flowing into the Cataract Reservoir of 0.041 ML per day.

This is just one 178th of the volume of baseflow water loss predicted by the WRM report. Something is seriously off here. What are we as concerned citizens to make of this?

- That one of the consultants' reports informing the decision on this destructive mining development is seriously flawed?
 OR
- That actually no-one really knows how much damage will be caused to the Catchment Special Areas if this mining goes ahead?
 OR PERHAPS
- That both of these conclusions are true?

I have read about the terrible collapse in early 2014 of the longwall mine at the Wongawilli colliery, a colliery - like Russell Vale - owned and operated by Wollongong coal. Surely this mine collapse would have been modelled or predicted as a "worst case scenario" also at the time the decision was made to drive the longwall machine through that particular area? **And yet it occurred.** The mine collapsed, burying the longwall machine worth tens of millions of dollars. The longwall machine is yet to be extracted.

Therefore, though the Dept of Planning insists that the WRM model represents a worst case scenario, it is my firm belief that the *public interest* is to judge this proposal by the criteria of a worst case scenario. Water is a vital resource and the Sydney Water Catchment Special Areas need to be protected for future generations.

¹ Addendum Report: Major Project Assessment, Russell Vale Colliery Underground Expansion Project (MP 09_0013), NSW Govt, Dept of Planning and Environment, November 2015, p 12

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My other basis for concern is that the cumulative effects of mining on the Sydney Water Catchment are not being considered.

I live in the Southern Highlands just 30 or 40 minutes from here. In my area, Korean miner and steelmaker working here as aims to mine 40 square km near Berrima in the outer catchment and this is of great concern. It would have an unacceptable impact on the overlying farmland, forest and also on the yield of this outer catchment area in replenishing the water system that supplies Greater Sydney area.

Although the Hume coal mine is in the outer catchment, it is just one more factor that may impact the integrity of the water catchment area. The decades of mining expansions both within and around the Special Areas are degrading the Catchment. The Chief Scientist's comment on the obvious disastrous cumulative impacts of longwall coal mining do not bring me comfort:

Professor Mary O'Kane's report to Government, "Measuring the cumulative impacts of all activities which impact ground and surface water in the Sydney Water Catchment" advised:

"The current cautionary approach by government agencies seems to be preventing development that could cause obvious disastrous cumulative impacts, and therefore there is no reason to stop long wall mining immediately."2

Why should we wait for "obvious disastrous cumulative impacts"? Isn't the potential for the Underground Expansion Project to result in hydraulic connectivity with the Cataract Reservoir, as confirmed in the Independent Expert Scientific Committee (IESC), report on the project³ sufficient threat of a disastrous impact?

As a mother, it is my firm belief that my son deserves to grow up into a world which is at least in as good a condition as the world I was born into.

It is for this reason, for my son, for my grandchildren and for the generations that are to come, that I ask the Panel to find that this proposed Underground Expansion Project is *unapprovable*.

Dallas De Brabander

² http://www.chiefscientist.nsw.gov.au/latest-news/chief-scientist-and-engineer-releasescatchment-cumulative-impact-study

³ IESC Report, IESC- 2015_ 065, Russell Vale Colliery Underground Expansion Project, Advice to Decision maker on coal mining project, February 2015. At: http://www.iesc.environment.gov.au/system/files/resources/fe65291d-c1ac-49da-99b6-27d1c36d54c3/files/iesc-advice-russell-2015-065.pdf