## Sydney catchments should not face risk of further loss from coal mining

As a school student, I learnt about the importance of the set of dams in Sydney’s south, including Avon and Cordeaux, to Sydney’s water supply. I also learnt how as Sydney expanded, we had been forced to abandon one water reservoir after another – Tank Stream and Centennial Park included ­– as we polluted the source and our needs grew.

Sydney’s population continues to grow, but there is no more land available to create new reservoirs. The recent drought showed how our major catchments can go without adequate rain for years, even when we get some coastal precipitation. Sydney’s water supply is vulnerable.

So the threat to existing water reservoirs must be taken very seriously. The reservoirs in question (Avon, Cataract and Nepean) supply between 20 and 30 % of Greater Sydney’s water in normal times (and, if Warragamba is compromised, a higher percentage).

It is impossible to expand the South 32 mines without further drawing down on our water supply. The mine will use water for its normal operations, and to that extent it can be regarded as just another industry calling on high quality drinking water for industrial purposes.

But losses through cracking and dewatering of watercourses are specific to longwall mining. They are hard to measure (although it is not in doubt that they occur) and unable to be reversed. I understand that several Government agencies, including Water NSW, are concerned about this proposal, and not satisfied by the modelling accompanying it. For example:

It is not possible, at this stage, to be comfortable that the worst-case losses from the surface water regime have been identified. Stream depletion can arise from combinations of reductions in overland and groundwater flow to the streams and increases in stream losses to the groundwater.

 Department of Planning, Industry and Environment, Assessment Report, Dendrobium Mine Extension Project, State Significant Development SSD-8194, October 2020, p68.

… previous iterations of the model had predicted surface water take at the existing Dendrobium Mine … these predictions had increased 5-fold in the 5 years since 2014 (now 1372 ML/year).

op cit, p89.

As well, the danger of cracking to the dam walls, especially Avon, must be taken into account. Loss could be disastrous, incremental, or simply expensive to fix. That cost is likely to be borne by the taxpayer.

I have concerns also about environmental effect of this expansion in such a sensitive area. Metal contamination from mining easily leaches into water supply. The Special Areas contain swamps and streams that would easily dry out from cracking. These protected areas have value as habitat for native plants and animals, well beyond their utility value to the Sydney.

The demand for water is expanding. The demand for coal, even coking coal, will reduce as the world, faced with the urgent need to decrease fossil fuel emissions, develops “green steel’” (perhaps even at Port Kembla.

For these reasons, I ask the Commission to reject South32’s proposal for expansion in the area.

ANGELA MICHAELIS

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