

Submission

While it is encouraging to see that the environment is listed as one of the criteria to be considered in sourcing urban water, it is more than disappointing to see that it has essentially been ignored in the draft report.

I refer to Perth urban water; the Commission considers that extracting water from an aquifer would be more economic than desalination. And yet the only aquifer that has been identified as capable of supplying urban water, the south-west Yarragadee Formation, has been ruled out as environmentally unacceptable. This being the case, or unless the Commission has identified another aquifer (the northern Yarragadee presents a remote possibility but has not been assessed) extracting water from an aquifer is not an option.

As it appears the Commission has not in fact taken into account environmental considerations, I wish to take the opportunity of pointing out the financial implications of ignoring environmental impacts. The south-west Yarragadee Formation is located in the Bunbury Trough, a southern extension of the Perth basin. In this trough all aquifers, including the Yarragadee Formation, are hydraulically interconnected and hydraulically connected to surface water – streams, groundwater dependent ecosystems, bores and dams. Taking water from the aquifers, specifically in quantities demanded for urban consumption, poses serious threats to these surface water assets.

- The Department of Water has identified the Scott Coastal Plain as an area of high risk of soil acidification. Extracting water from aquifers, specifically the Yarragadee, would heighten that risk. This is a productive agricultural region and as well water from the plain drains into the Hardy Inlet, central to the town of Augusta. Acidification and related heavy metal contamination of this inlet would very likely cause considerable and possibly devastating putrefaction and financial losses to businesses (tourism is the town's principle business) and depress real estate values. (I would remind the Commission that BHP ignored environmental concerns and proceeded with the Beenup mineral sands mine located on the Scott Coastal Plain. Due to soil acidification BHP was forced to close this mine with a loss of over \$500 million – far greater in present day terms – and an ongoing liability and potential irreversible environmental impact).
- In two of the past three summers the only flow in the lower Blackwood River, the largest stream in the region, has been from aquifer discharge into the river and its tributaries. This river is important for agriculture and also flows into the Hardy Inlet. Placing the flow of this river at risk would be financially irresponsible.
- The Margaret River is the only source of water for the towns of Margaret River, Cowaramup, Prevelly and Gnarabup. These towns depend on that water and on that water alone. The Margaret River is supported by groundwater from the Leederville aquifer (hydraulically connected to the Yarragadee) and although this dependency appears critical it has not been assessed by the Department of Water. Risking this water supply to the towns would be reckless both from an environmental and financial point of view.
- The Department of Water has identified the Swan Coastal Plain, from Dunsborough to Bunbury, as an area at high risk of soil acidification. The southern part of this strip has many residential, tourism and other commercial developments. Acid is not good for concrete. The financial losses of causing acidification due to extraction of water from aquifers, including the Yarragadee, could well be catastrophic.

The above financial losses would of course have human and social consequences.

It is a sad reflection on our community that environmental impacts are not considered to be serious unless or until there are financial consequences and I regret the necessity of having to list these potential consequences in order to encourage the Commission to adhere to the principles stated in its scope of enquiry.