

Perth Water Users Submission to ERA Water Price Inquiry September 2004

The newly announced (29 July) Kwinana Desalination Plant (KDP) will on the Government's own figures produce 45GL of water at a cost of about \$1.20 per kilo litre, about quadruple Water Corporation (WC) current costs, will involve investment of hundreds of millions of dollars of scarce capital and the entire project is not without technical and environmental risk.

The extra cost of KDP water that Perth and Western Australian water consumers will bear into the future brings the entire KDP proposal and any alternative supply sources squarely in the ambit of this inquiry.

Evidence shows that at least three opportunities exist for supply to be enhanced, on a scale that the volume of proposed water production from the KDP can easily be replaced by much cheaper alternatives. Perth Water Users proposals give the Government the option of the advantageous course of action to shelve plans for the high cost, high impact, high emissions, high risk KDP and proceed with our multi-path approach to enhance our existing systems and get more value out of our existing public investments.

Cheaper sources that are a better alternative to the KDP

The three areas where we see water supply being enhanced at the lowest cost are;

[1] The proposal by Agritech to treat by gravity driven reverse osmosis (RO), slightly saline water currently wasted to the sea from Wellington Dam and produce circa 40GL of fresh water per year at a cost of 60 cents / kl, about half that of the KDP. Agritech have contact details on their web site; http://www.geocities.com/agritech_wa/ and the outline of their proposal below is from their web page; http://www.geocities.com/agritech_wa/wellro.html

[2] Forest and scrub regrowth has degraded Perth catchments to a point where only 6% of rain falling ends up as stream flow into dams.

The WC on their web site at;

http://www.watercorporation.com.au/environment/environment_wungong.cfm state that 40GL of extra inflows per year could be generated by management of catchment bush.

[3] The science and application of cloud seeding has advanced enormously in the second half of the 20C. Enhancement of rainfall is a multi-million dollar business successfully operating in many countries and by enhancing stream flows has the capacity to reduce our overall water costs.

As a starting point one leading commercial group with many years experience cloud seeding is Weather Modification Inc who have much information on their web site; <http://www.weathermod.com/>

Other operators can be found using the internet.

We should forthwith negotiate performance trials with the best operators available.

[1] Wellington Dam Reverse Osmosis proposal of Agritech

The proposal involves reusing the saline scour water currently released to the sea, in a bid to freshen the dam water. This scour water would be taken from Wellington Dam down the side of the Darling Scarp to Brunswick Junction, a distance of approximately 20 km. At Brunswick the saline water would be treated through a reverse osmosis plant before being piped to Harvey, a further 20 km away.

The head pressure of Wellington Dam above the reverse osmosis plant is sufficient to treat the water and change its current 1500 ppm salt content to a meagre 50 ppm. There is also sufficient pressure still available to transport the water by pipeline to Harvey.

The Agritech proposal has been privately funded and requires no Government contribution to the capital cost. The project could supply 45 GL of water to the Government under a long term contract at a price that equates to a saving of at least 50% on the Kwinana RO option and 33% cheaper than the Yarragadee groundwater extraction.

There may be other sources of slightly saline river and stream drainage from the Darling Ranges that could be treated in this way.

[2] Catchment Thinning.

After telling us on their web page that catchment thinning can add 40GL per year to dam inflows at a price of 0.25cents per kl, or about one fifth of the cost of desalinated water from the KDP;

http://www.watercorporation.com.au/environment/environment_wungong.cfm
we find the WC are in "...consultation with stakeholders.." over a tiny trial at Wungong covering only 3.8% of Perth catchments, a trial expected to take 12 years !!!

In the meantime while this trial drags on, maybe delayed more by stakeholder protests, the other 96.2% of Perth catchments will increasingly clog with regrowth and inflows will deteriorate further, possibly prompting authorities to blame "climate change".

Perth Water Users say it is now three years since the dry winter of 2001 and time has long past to initiate catchment thinning using all the best knowledge of CALM and the WC accumulated over more than a century.

We are puzzled why the Government and WC are so paralyzed over this issue and have to conclude it is out of deference to Green beliefs. We believe it is the role of Government and the WC to find the correct balance involving an immediate thinning program in all Perth catchments carried out in a way to minimise any impacts on wildlife and water standards.

Our forefathers invested in the dam system with great foresight to provide water supplies for the people of Western Australia and they might be amazed that we have allowed regrowth to clog catchments, suppressing inflows, degrading the investments they worked hard to put in place.

[3] Cloud Seeding.

Cloud seeding is a relatively low cost proposal that might say cost a million dollars per annum and if it only added 10% to inflows in Perth catchments that would mean an extra 16GL per year, rising of course to circa 20GL once catchments were managed. 15GL of additional water has a retail value of \$15Million at median retail prices, more if it resulted in higher excess water sales. A fair return on \$1Million outlay. It is possible cloud seeding could be more successful than this and of course the value to the community is greater in terms of our capacity to host industry and all those flow on benefits. The technique could also be applied to the Wellington Dam catchment and other SW WA areas providing even greater benefits.

At this point Perth Water Users has set out three alternatives that if followed would easily replace water production from the KDP at half the price or less.

Questionable statements on water and climate science by the Government and Water Corporation

Certain statements by the Government and WC appear to misrepresent the basic science of water resources and we will comment on these briefly. The cumulative effect of these unscientific statements is always to exaggerate any decline in rainfall, to minimise current and recent rainfall and to pessimistically accept CSIRO Greenhouse model predictions for decades into the future under the label of "climate change". All this assists policy makers to avoid facing their part in the neglect of catchment management together with not putting in place new sources to cope with ever increasing water demand which has all added up to steadily declining dam levels from 1996. This leads inevitably to the situation where one cyclic dry year in 2001 puts dam levels at 17%. See "My composite graphic of trends in Perth water resources statistics 1979-2003" at; <http://www.warwickhughes.com/water/>

This submission will be kept as short as possible by referring to the web page <http://www.warwickhughes.com/water/quest.html> where with the aid of six graphics, examples of questionable and slanted statements on water and climate science by the Government and Water Corporation have been examined.

Warwick Hughes,
Perth Water Users 3 September, 2004