Submission No 30

INQUIRY INTO WATER AUGMENTATION

Name: Mr Peter Thompson

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The precautionary principle is an essential guide to considering water augmentation. Water supply for human use can come from several sources including: catching rainwater in tanks; impounding river water in dams and weirs; and extracting groundwater. Any examination of the environmental, social and economic costs and benefits of augmenting water supply should look at all options including the 'reduce use' and 'do nothing' options. All too often there is a tendency to want to build large engineering works in response to a perceived problem. Dams and weirs are popular with some politicians and construction companies but usually have very high environmental costs over an extended period. Almost all catchments in NSW already have major storage dams. Even from strictly engineering and short-term economic cost points of view, feasible dams have already been built. The remaining unregulated (and little-regulated) rivers are a precious remnant of the once extensive riverine ecosystems of NSW. No further dams or weirs should be built. The 2000 Report of the World Commission on Dams is a useful reference. Groundwater systems throughout NSW are already overcommitted to extraction for domestic, stock, irrigation and industrial use. Irrigation farmers have already taken big reductions to bring extraction levels back towards sustainable yield. Unfortunately groundwaters are still under great pressure from expanding use by industry, especially mining and gas extraction. Groundwater extraction for mining and gas extraction should be the lowest priority and should not be permitted to compete in the regulatory sphere or in the market with the other uses of water. Release to streams and reinjecting aquifers with treated water produced from mining and gas production has been proposed. These are highly dangerous practices due to the inability to treat gas and mine waste water to a quality anything like rainwater (even for basic parameters such as salinity) which is the ultimate natural source of aquifer recharge and stream flows. Water produced by gas extraction and mining must be isolated from the environment because of its toxicity and evaporated to the atmosphere to purify it. Rainwater storage at the domestic, neighbourhood and town scale will often the cheapest way to augment domestic and small industry water supply. It is likely to have the least environmental impact. In some locations town water supply is met from a mix of sources, including a dam with high environmental impact, one or more bores from a poorly documented groundwater source, plus direct extraction of river water. It is critical that any proposal to augment water supply at this scale must consider all options including improving efficiency of use at every level. Restoration of rivers by removing dams and weirs should be given high priority, in conjunction with moving supply to rainwater and cautiously managed aquifers where appropriate. We all need to think differently about water and the 'water cycle'. Water flowing past me is not wasted. It is contributing to ecosystem function, to the web of life upon which we all depend.