

## Muddy water in Brisbane's future plans

The recently revised terms of reference for the Environmental Impact Study for the Traveston Dam includes examination of feasible alternatives to the dam project.

The numerous reports and evaluation of reports released on Brisbane water this year will not make this task easy. There are many and varied opinions on the best way to provide water to meet population growth in South East Queensland.

Firstly, it should be obvious that limits to growth are not an option. It is impractical to say to people they cannot come and work in Queensland. If limits were placed on population, house prices will rise and become even more unaffordable. But more importantly there is no need to limit growth on the basis of water supply. There is plenty of water, the main challenge is how best to go about providing an enhanced and reliable supply.

In February, the Institute for Sustainable Futures and Cardno Australia released a *Review of Water Supply-Demand Options for South East Queensland*. This review found that Traveston Crossing Dam will not improve water security and recommended several smaller dam projects. However the main thrust of their plan to meet future water needs was to reduce water demand.

The Queensland Water Commission commissioned an evaluation of this report by Marsden Jacob Associates and MWH Australia, which could not agree with the potential savings that Cardno estimated from such items as rainwater tanks and the installation of front loading washing machines. Whilst having the appearance of accuracy, the estimates in these water reports are quite rubbery, especially those about the use of more efficient washing machines, when many people are using washing machine water to keep their gardens alive.

The point about recycling, is that if water is recycled in back yards or at a city sewage plant, then estimates of potential water savings go out the window. If the water is going to be used again, does it matter if you have a five-minute shower?

The reports differ on how much water will be needed. What is sure is that it will grow, with the Water Commission report anticipating a rise from current levels of 480,000 megalitres per year, with 2.8 million people, to 733,000 megalitres per year by 2050, with around 5 million people and modest water saving programs in place.

But while the engineers argue over demand and water saving schemes, there are some other social and environmental considerations involved in the examination of alternatives to the Traveston dam.

The ecological effects of a dam on the Mary River and the significance of Queensland Lungfish and Mary River Turtles have been well signposted.

A social issue receiving less attention is whether the resumption of water from the countryside around Brisbane is fair on local communities. Should the communities of the Fassifern, Brisbane and Mary valleys all lose their water so it can go to the big city? Will fruit and vegetable production in the South East continue to decline and imports of food increase?

It might be reasonable if Brisbane could not find enough water elsewhere. But the engineers and water planners continue to ignore the large water resources available in the big city itself, such as stormwater runoff.

In Brisbane City alone, there are over 2,000km of enclosed urban stormwater drains and some 10,000 kilometres of 'kerb and channel' stormwater drainage. The area under bitumen, concrete and industrial buildings produces runoff which is about half the total water use in Brisbane each year, without considering the runoff from roofs of domestic houses and the potential to capture some of it with rainwater tanks.

The Cardno report does suggest that one of the most effective options for future water supplies is recycling and rainwater capture in new developments, but with dam options costing over \$2 billion, there is much more that could be done to modify existing stormwater systems, to store water underground and to treat it with reverse osmosis for urban use.

A second desalination plant is another option. A major concern about treating seawater is the cost and environmental impact of the electricity used. But the energy cost of pumping a megalitre of water from the Traveston Dam to Brisbane has been calculated to be similar to desalination. Desalination has other environmental issues, but significant advantages in terms of water security and providing new water, rather than poaching it from rural communities.

Both Perth and Israel have chosen this pathway for such reasons. A survey of Perth residents indicated they would prefer desalination to taking water from rural areas to the south of the city. Israel regards horticultural production from recycled water of immense value to the country and desalination of seawater as a way of increasing the supply.