## **Dr Simon Fane, Institute for Sustainable Futures**

## What are the alternatives to a dam at Tillegra?

**Demand management:** Saving water through improving the efficiency of water use in shops, offices, factories and houses at the point of use.

An example is Hunter Water's REFIT program in which customer's homes are visited to detect leaks, install water efficient showers and taps, and minimise excessive flush volumes in old toilets. With refitted households saving of 10% of water use, the nine thousand refits to date represent a great start.

In 2003 Hunter Water stated¹ that "building a new dam at Tillegra would be far less cost effective than many demand management and water conservation initiatives." Other demand management initiatives yet to be introduced in the Hunter include a targeted non-residential program helping business owners save water and money, or rebates for purchasing efficient appliances such as front loading washing machines.

**Secondary water supplies:** Providing non-drinking water to households and businesses via rain tanks, stormwater harvesting or wastewater reuse.

Drinking quality water is not needed for many uses such as toilet flushing or garden watering. Providing a second source of non-drinking water to new developments can be cost effective and reduce drinking water use in households by up to 70%.

**Augmenting current storages:** Additions to the existing dams in the Hunter and Central Coast would increase the available supply and improve drought security.

In October this year, Hunter Water<sup>2</sup> indicated that additions to Grahamstown Dam could meet growth in water demand to 2030. Lockstock Dam is also a possibility. On the Central Coast, planned additions to their current Mangrove Dam will significantly strengthen their system.

Even without the proposed Tillegra Dam, the new connection between the Hunter Water and Central Coast supply systems will provide drought security to both systems.

**Desalination:** A filtration process producing drinking water from seawater.

Water from desalination is not dependent on climate and can therefore provide a truly 'drought proof' backup to a regions water supply. Although relatively energy intensive when in use, desalination can be restricted to when supplies are very low. Desalination has been installed or planned for Australia coastal cities including Perth and Sydney.

## A better strategy

In all likelihood, a better strategy for Hunter Water and the Central Coast could be found by drawing on most if not all of the elements above.

<sup>&</sup>lt;sup>1</sup> Hunter water corporation, 2003, Integrated Water Resource Plan

<sup>&</sup>lt;sup>2</sup> Hunter water corporation, 2006, Operating licence review, Submission to IPART