

**Guest Speaker: Ian Hammerton, Recycled Water Strategist Subject:  
"Sydney Water"**

Introduced by David Greatorex, Ian set the scene commenting that provision of water security for Sydney is now a topical subject – which was not the case 10 years ago. His presentation was supported by a graphic display of charts and photographs.

Predominant rainfall is coastal in the Shoalhaven area around Wollongong, with Warragamba Dam situated in a relatively low rainfall area. The current dam network has a capacity of 4 years supply if no rain. (London has 10 weeks, Tokyo 10 days). The last time the dam was full was 1998. Shoalhaven transfers commenced in 2003 without which in 2007 total storage would have been reduced by 17% to 13% - this resulted in a push for desalination plants.

From 1909 to 1948, the average annual dam inflow was 1,000 billion litres, 1948 to 1990 2,000 billion, and for the period 2003 to 2009 600 billion litres. Throughout the period there has been a significant variation in rainfall year to year.

Whilst Warragamba is one of the largest per capita storages in the world, it is important for provision of a life sustaining supply that we look to other sources that don't rely on rainfall. These include recycling, desalination and water usage efficiency.

Current aim is to have water efficiency contribute a saving of 24% of our water needs by 2015. Improved leakage management has achieved a 20 year low in leakage rates – by comparison Sydney has an infrastructure leakage index of 1.3 with England /Wales on 2.6 and US/Canada on 4.9. Sydney Water inspects 20,000km pipes each year and replaces 100km per annum. Our households and businesses are using the same amount of water now as was used in the 1970's – despite a population increase of 1.3 million. Domestic/ business water usage ratio is 70% v 25/30%. Household efficiency contributors include tanks (*Yes, we wanted one some years ago but were not allowed because they didn't look nice and reduced our reliance on Sydney Water Ed.*), efficient washing machines, efficient toilets, and water saving kits.

Common sense water wise rules are now in place with good response. These include:

- All hoses must now have a trigger nozzle
- Watering allowed before 10am and after 4pm to avoid heat of the day
- No hosing hard surfaces e.g. paths and driveways
- Washing vehicles allowed
- Fines apply

Desalination is planned to provide 15% of water needs by 2015, delivering 250 million litres of drinking water per day – and could increase to 30%. The plant power needs are fully offset by wind farm

**near Queanbeyan. Sydney Water produces renewable energy – providing 22% of its own energy needs.**

**Recycling will provide up to 12% of our water needs by 2015 (– currently at 33 billion litres, planned to increase to 70 billion litres). This water is mainly used by industry with some residential (e.g. Rouse Hill), golf course irrigation, and environmental health support. There are 15 recycling plants in the region, 13 of which are owned by Sydney Water.**

**There are also a number of waste water treatment plants throughout the area as well as a large number of storm water re-use projects.**

**Water from dams is released regularly to support river health, aquatic life and a steady daily flow.**

**Ray Hyslop summed up the appreciation of all present for Ian's most informative address.**