

Tanks hold water even in dry times

December 2008

Rainwater tanks can make a huge difference to mains water consumption as demonstrated by one Melbourne household even through some of the driest times on record. Stuart McQuire, Wendy Orams and their two teenage daughters have used an average of just four litres of mains water per person per day over the last year. This is just 2.6 per cent of the Victorian government's target of 155 litres per day. They have shown that even through periods of drought there can be enough water without using desalinated seawater or water taken from other catchments.

Nearly all the water used in Stuart and Wendy's house is rainwater or recycled water from the site. Only two taps in the house are mains water, the kitchen cold water tap for drinking and cooking, and the cold water tap on the bathroom basin for brushing teeth. The rainwater is used for showers (hot & cold water), the laundry, all water via the hot water system, and some of the garden taps. Recycled water is used for toilet flushing and also for the garden.

Stuart and Wendy started diverting greywater to the garden in 1992 and got their first rainwater tank in 1994. In 2003 after being awarded a Smart Water Fund grant to see how far they could go in cutting mains water consumption, they installed new rainwater and greywater systems. Now the house supplies its water needs almost entirely through rainwater and recycled water from the site. Their rainwater system uses four rainwater tanks to store up to 20,000 litres of water. The Envirowater greywater recycling unit installed in the front yard of the house also doubles as a water feature and produces water clean enough to use on the vegetable garden.

According to Stuart, *"Our experience is that rainwater tanks can be the main source of supply even through some of the driest times on record. While we'd all like more regular rain, we're keen to challenge the perception that it's not worth having a rainwater tank. Rainwater tanks save huge amounts of energy and greenhouse emissions compared to desalination or centralised water recycling. They also connect you with your local environment and can cut your water bills dramatically"*.

Stuart points out that most households would benefit from a rainwater tank. *"Even a relatively small rainwater tank can be used to supply water for toilet flushing and the laundry, with mains water back up used for times when there isn't enough rain"*.

Using less in the first place is a key to sustainable water use. If rainwater and greywater are included with mains water, then the overall water use at Stuart and Wendy's house has been 77.5 litres per person, per day or half the Victorian government's target of 155 litres per day. They have cut their water use with a water efficient shower, a water efficient washing machine, dual flush toilets and by using mulch on the garden.

Stuart and Wendy's house also features solar electricity, solar hot water, a permaculture style garden, composting and chooks. For more information visit www.greenmakeover.com.au or phone 03 9018 9720.

Stuart McQuire is an environmental scientist and past President of the ATA (Alternative Technology Association). He is the author of the book *Water, not down the drain, A guide to using rainwater and greywater at home* (published in 2008 by the ATA with funding provided by the Smart Water Fund).

**To arrange a photo or interview please contact
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See page 2 for more detail on water consumption data.

Media release

Water consumption data

West Brunswick Sustainable House
November 2007– November 2008

Water consumption by source

1 Nov 2007 to 1 Nov 2008

Source	Total amount used (litres) (365 days)	Average daily amount for the household (litres)	Average daily amount per person (litres)	Percentage
Rain	73010.0	200.03	50.0	64.5%
Recycled	34349.0	94.11	23.5	30.3%
Mains	5862.1	16.06	4.0	5.2%
Total	113221.1	310.19	77.5	

Mains water consumption has been cut to around 4 litres per person per day or 1465 litres per person per year. Rainwater supplies about 64.5% of the household's water, recycled water is about 30.3%, and mains water around 5.2%. Only the kitchen sink cold tap & the bathroom basin cold tap are on mains water.

