



Greenhouse Gas Reduction Strategy

Western Water is rolling out its Greenhouse Gas Reduction Strategy, committing to reducing net greenhouse gas emissions to zero by 2017.

"Our commitment to reducing emissions is based on our understanding of its connection to climate change, and consequently the availability of water supplies for future generations," said John Wilkinson, Managing Director of Western Water.

In 2004/05, Western Water recorded 30,434 tonnes of carbon dioxide equivalent emissions (CO₂e). Western Water reduced emissions by 21% in 2006/07, recording 23,957 tonnes CO₂e. This is equivalent to permanently removing the pollution from 1495 cars. Based on 2004/05 emission levels, Western Water will reduce or offset emissions by:

- 25% by 2008/09
- 50% by 2012/13
- 75% by 2014/15
- 100% by 2017/18

"Western Water could become carbon neutral immediately by purchasing GreenPower and carbon offsets at an annual cost of more than \$1 million," said Renewable Resources Manager Peta Maddy. "But setting a target date of ten years into the future provides sufficient time and budget to identify and instigate real and lasting behavioural and technological change."

Key opportunities identified for emissions reduction include:

- purchasing 100% GreenPower for the Sunbury office;
- purchasing 100% GreenPower for the 66 water pumping stations which use the least energy, using funds made available through efficiency gains from the largest 11 pumps;
- investigating powering the new Class A recycled water facility at Melton Recycled Water Plant with electricity generated using biogas captured during sewage treatment; and
- joining the Greenhouse Challenge Plus program managed by the Australian Greenhouse Office.

For more information about the **Greenhouse Challenge Plus program**, visit www.greenhouse.gov.au/challenge

To download Western Water's first **Environment Report**, visit www.westernwater.com.au Covering 2006/07, this report includes detailed information about Western Water's greenhouse gas emissions and recycled water schemes.

Greenhouse gas emissions from industry, transportation and agriculture are very likely the main cause of recently observed global warming. Major sources of an individual's greenhouse gas emissions include home heating and cooling, general electricity consumption, and car travel. Examples of greenhouse gases are carbon dioxide, methane, water vapour and nitrous oxide.

Carbon dioxide equivalent, or CO₂e, is an internationally accepted measure that expresses the amount of greenhouse gas in terms of the amount of carbon dioxide (CO₂) that would have the same global warming potential.

Sunbury Bowling Club connects

The Sunbury Bowling Club connected to Class B recycled water on 5 November 2007. This is the result of six months of work by the Club, with assistance from Hume City Council. The Council funded the extension of the recycled water pipeline from Clarke Oval.

The Club has approval to water three of their bowling greens and garden areas with recycled water. The Club has also installed rainwater tanks plumbed for toilet flushing. By taking these steps, the Club will save up to five megalitres of drinking water annually.



Sunbury Bowling Club members now enjoy playing on greens irrigated with recycled water.



Nicola Porter and Firew Beshah from RMIT, with Western Water's William Rajendram (left), led a tour of the biosolids trials at Melton Recycled Water Plant.

Biosolids trials inspected

Farmers, landowners, waste experts and industry regulators recently visited Western Water's Melton Recycled Water Plant, to inspect trial plots of canola and oats grown using biosolids recovered in the sewage treatment process.

In 2005, RMIT and Western Water began a joint research project, funded by the State Government's Smart Water Fund, to find new applications for biosolids. In October 2007, Nicola Porter, Senior Lecturer in Environmental Science at RMIT, and her Doctoral student, Firew Beshah, reported their findings to a diverse group of 25 stakeholders.

"We applied biosolids to the soil at varying rates to determine the optimal application for crop production," explained Mr Beshah. "The canola crop may be used to produce biodiesel. We use the oats as a rotational crop to reduce the risk of disease in the canola, but they are also a potential source of cattle fodder or ethanol."

"We are seeking ways to use this valuable resource in agriculture, to develop new, sustainable markets for biosolids," said Western Water's Senior Environmental Engineer, William Rajendram.

Mr Rajendram said interim findings from the study were encouraging and he urged any local landowners and farmers interested in learning more to contact him on 9218 5400.

Did you know?

You can help produce high quality recycled water and biosolids products by:

- using environmentally friendly detergents and cleaning products - liquid detergents are generally preferable to powders because they contain less salt;
- catching food scraps in a sink strainer before they go down the drain and putting them in the bin or compost;
- not flushing nappies, sanitary products, condoms, surgical bandages or cotton buds down the toilet; and
- not putting grease, paints or pesticides down the drain - keep these products in a sealed containers and dispose of them at your local council collection point.

Award winning research presented

Anna May, Western Water's Renewable Resources Project Engineer, addressed the Institute of Water Administration and the Australian Water Association joint conference on Water Planning on 16 November 2007. Ms May presented her review of the communication and engagement strategies adopted for recycled water schemes across Australia, for which she received the 2006 Institute of Water Administration (IWA) Development Award.

Her particular research focus was dual pipe residential developments, where recycled water is supplied for toilet flushing, garden watering and car washing. Ms May undertook a tour of Rouse Hill in Sydney, the oldest dual pipe scheme in Australia, as well as schemes in Queensland, Adelaide and Victoria.

Her findings may be summarised as follows:

- The use of recycled water for toilet flushing and garden watering is generally well accepted.
- The benefits of drinking water savings and the ability to water gardens in times of drought need greater promotion, while sustainable watering habits must also be encouraged.
- The public, plumbers and other contractors need further education about recycled water being the 'purple supply' (recycled water pipes, taps and meters are colour-coded purple), and about compliance requirements.
- There is also a need to provide information to customer interfaces including real estate sales staff, developers, councils and nurseries.

Ms May's findings will help shape Western Water's community engagement and communication strategies for the new Eynesbury township, being constructed to the south of Melton. Eynesbury will be supplied with Class A recycled water by Western Water from April 2008.

Another irrigation workshop in the pipeline

30 landowners and managers of recreation reserves and golf courses attended a one-day workshop on recycled water irrigation, at Western Water's Sunbury office, on 14 November. The workshop was conducted by presenters from Arris and funded by the Smart Water Fund and Western Water. It was so popular that a repeat is planned in 2008. For more information, contact Trevor Hayes, Recycled Water Advisor at Western Water, on 9218 5400.



Participants in the recycled water irrigation workshop test a soil sample.



recycledwater
bringing the region to life

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