

recycledwater news

December 2010



Western Water's Climate Change Strategy

Western Water recently launched its 2010 Climate Change Strategy (CCS). The CCS builds on the 2007 Greenhouse Gas Reduction Strategy, which set Western Water on a pathway to achieving zero net greenhouse gas emissions by 2017/18.

With the 2010 CCS, Western Water aims to:

- continue to reduce greenhouse gas emissions to mitigate Western Water's contribution to climate change; and
- adapt to the impacts of climate change on our operations and our customers.

"Since Western Water's 2007 Strategy was written, global action on greenhouse gas emissions targets has stalled," said John Wilkinson, Western Water's Managing Director. "The less mitigation action taken globally, the more adaptation will be required locally to counter the impacts of climate change."

Predicted climate change impacts for Western Water's service area include:

- less runoff into our reservoirs
- poorer reservoir water quality due to reduced runoff
- increased customer water use due to higher temperatures
- increased extreme weather creating a higher risk of heat- and storm-related water asset and power failures.

"The uncertainty regarding the scale and timing of these impacts presents a major challenge to Western Water," explained Mr Wilkinson. "To date, in terms of adaptation to climate change, Western Water has acted to ensure our access to alternative sources of water, such as recycled water, in addition to our own reservoirs. This has involved considerable investment in infrastructure."

"In terms of mitigation, Western Water has already achieved more than 30% percent reduction in net emissions against the baseline year of 2004/05. We are committed to reducing our carbon footprint and adapting to climate change in a way that is socially, environmentally and economically sustainable."

To view the 2010 CCS, and for more information about past and planned actions for climate change mitigation and adaptation, visit www.westernwater.com.au

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To receive Recycled Water News by email, please visit:
www.westernwater.com.au



Western Water's actions to date to reduce greenhouse gas emissions and mitigate climate change include (top to bottom):

- construction of a biogas co-generation plant at Melton Recycled Water Plant;
- application of heat reflecting paint to depot roofs;
- use of biodiesel in fleet vehicles; and
- installation of Solar Bee aerators for recycled water treatment.



Biofuel and electricity from algae?

With Victoria University, Western Water is undertaking research into the use of algae as biofuels.

Using recycled water from the Bacchus Marsh Recycled Water Plant, two species of algae are being tested. The growth rates of the algae and the water quality are being monitored.

One species of test algae has high oil content and may have the potential to be used for biofuel. The other algal species has low protein content and high carbon content and could be used to produce biogas.

Biogas can be used to generate electricity in a system such as Western Water's co-generation plant at Melton Recycled Water Plant.

The experiment also aims to discover the most efficient technique for harvesting the algae. The project will continue for 12 months to study the effects of all seasons on the algae.

Two 'raceway' tanks are being used during the experiment, where the water is circulated during sunlight hours via a paddle wheel - pictured above - to promote algal growth.

Depending on the results, Western Water may continue the research on a greater scale.

Recycled water available

Western Water is seeking applications from property owners who would like to use Class C recycled water from the Riddells Creek or Woodend Recycled Water Plant; or Class B recycled water from the Gisborne or Sunbury Recycled Water Plants.

Suitable uses for recycled water include irrigating crops, orchards and sporting grounds.

For more information, please contact the Renewable Resources Team on 03 9218 5400.

Using recycled water wisely

If you are a recycled water user, always check the forecast for rain before watering your garden or irrigating crops.

Recycled water is a limited, precious resource and should never be wasted.



Staff profile: Luke Wilson

Qualifications: Bachelor Environmental Science, majoring in Environmental Management.

Work Experience: Conservation work on waterways with Melbourne Water / Thiess Alliance; coordination of recycling and waste auditing programs with Green Collect.

Role at Western Water: Renewable Resources Officer. Responsible for developing recycled water schemes and customer connections and promoting the use of biosolids.

Water and Energy \$avings Program

Want to improve your company's environmental and financial performance? EPA Victoria's Water and Energy \$avings Program offers support for feasibility studies focused on reducing drinking water and energy use in industrial processes. Applications are open now.

Generally, projects in the Water and Energy \$avings Program are completed by consultants with industry specific efficiency expertise and managed by the Water and Energy \$avings team.

For more information, telephone (03) 9695 2669, email waterandenergy@epa.vic.gov.au or visit www.epa.vic.gov.au