

Edition May 2007

rewater

water recycling in Australia



Collaboration the Key for Groundwater Replenishment Trial

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Collaboration has been the key for the Water Corporation in Western Australia to move a step closer to using recycled water in Perth's drinking water supplies.

The Water Corporation has been working closely with the Department of Water and other State government agencies, such as the Department of Health, as well as universities and research institutions over the past two years to develop a trial to replenish Perth's groundwater using recycled water, ultimately for use in the drinking water system.

Dr Melissa Bromly from the Department of Water has been responsible for managing the interagency negotiations.

"To formalise our working relationships we have developed an Inter Agency Agreement between the Department of Water, Water Corporation, the Department of Environment and Conservation and the Department of Health in Western Australia," she said.

"The Agreement will ensure that the trial is approved in a timely manner, that all participating organisations have a clear, shared understanding of what the trial has to show to progress to a full scheme, and that we have the necessary policy and regulations to allow assessment of a full scheme when it is proposed."

The Inter Agency Agreement allows the Water Corporation to conduct the groundwater replenishment trial to assess the technical feasibility of the process and to assist the signatory agencies to address the environmental, water resource and health issues.

As part of the trial, approximately 1.5 GL/y of secondary treated wastewater will be further treated by micro filtration, reverse osmosis and advanced oxidation, then injected into the confined Leederville aquifer at approximately 200m depth. Detailed monitoring of the water produced by the plant and in the aquifer will be undertaken over a period of three years, in collaboration with regulators and researchers.

The Water Corporation will undertake the trial with the intention of implementing a full scale scheme to deliver between 25-35 GL/y of public drinking water by 2015, subject to regulatory approvals and community support.



HAL

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AgriWest's fine food and wine exhibition

Source: *Recycled water news (Western Water)*
www.westernwater.com.au

AgriWest recently held a unique Fine Food and Wine Exhibition, which included a progressive lunch showcasing high-quality produce grown using recycled water. Speakers included Arris recycled water specialists, Managing Director Jim Kelly and Director Dr Daryl Stevens, Spencer Flint, of Olive Hill Estate, Peter Nilon, Manager of Werribee Agriculture, Tony Ramunno, General Manager of Witchmount Estate, and John Learmonth, Director of Mt. Gisborne Cherries.

Hosted at Witchmount Estate winery, which has been making awardwinning wines for almost 15 years, recycled water experts from the agricultural and horticultural industry shared knowledge gained from decades of growing high quality produce using recycled water.

Keynote speaker Jim Kelly discussed recycled water use in Australia and in a global context, touching on his pivotal role in developing industry communication tools.

Sponsors of the event included Western Water, Bendigo Bank and the State Government.



L-R Jim Kelly, Managing Director of Arris, Kaye Kilgour, Chair of AgriWest, John Wilkinson, CEO of Western Water, and Scott Elkington, State Manager of the Bendigo Bank, sampling some recycled water produce at Witchmount Winery, Rockbank.

From the editor

ReWater has been developed in recognition of the growing interest in the use of recycled water in agriculture.

We would like ReWater to become a forum for you to communicate your thoughts about the beneficial use of recycled water.

If you would like to receive a copy of ReWater electronically, email us at rewater@recycledwater.com.au

If you have articles, ideas or would like to raise issues in the letters to the editor, submit them to the National Coordinator for Recycled Water Development in Horticulture.

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Alice Springs to Have Recycled Water

By David Maynard, Department of Primary Industry Fisheries and Mines, NT

Alice Springs will soon be operating a state-of-the-art water banking and reuse scheme to maximise the use and conservation of its valuable groundwater resources. The \$10.4 million project, driven by the Northern Territory's Power and Water Corporation in conjunction with the Department of Primary Industry, Fisheries and Mines (DPIFM), Department of Natural Resources, Environment and the Arts (DNRETA), CSIRO and the Department of Planning and Infrastructure (DPI) will use Soil Aquifer Treatment (SAT) technology to store Alice Springs waste water underground for later extraction and use (see ReWater, Feb 06). This is currently the only horticultural water reuse project operating in the Territory and is a pioneering scheme for arid areas of Australia.

The Process

The water from the Alice Springs waste stabilisation ponds will be initially treated by a Dissolved Air Flotation (DAF) plant and disinfected before being transported via a 6.2 km pipeline to the Arid Zone Research Institute (AZRI). Construction of the DAF plant is in the final stages and once completed will have the capacity to deliver 6 ML of treated water per day to the AZRI site where it will be selectively distributed to four infiltration basins which form the initial stage of the SAT process.

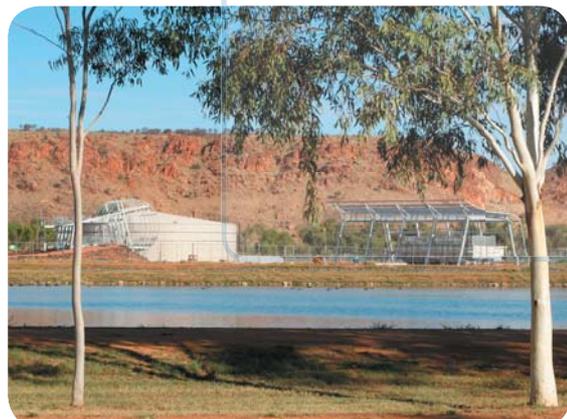
The infiltration basins will be completed by early May and the earthworks and piping are already in place. Regional Director for DPIFM Phil Anning said that at the current stage of development Alice Springs could have recycled water as early as September this year. An initial 600 ML of waste water will be treated per year with potential to ramp this up to 1200 ML/yr or beyond depending on initial results during the commissioning phase.

Potential for use

Once recycled water becomes available its initial use will be irrigation for horticultural developments on the AZRI site. Current best practice guidelines are being produced by DPIFM specifically for use on the site. As it is likely to take time to bank sufficient water in the aquifer for extraction the water will be initially tapped directly from the pipeline to irrigate research projects and commercial crops at AZRI. Crops being considered include table grapes, melons, asparagus, stone fruit and other salt tolerant varieties. There has also been interest from other industries such as schools, nurseries, hydroponics and research institutions to access the water along the 6.2 km pipeline.

Through the SAT process further treatment of the water occurs as it infiltrates through the underlying sediments.

The longer term uses for the banked water may well extend beyond horticulture.



Treatment plants can not keep up with demand for recycled water

By Stephen Smolenaars and Daryl Stevens, Arris Pty Ltd

Many production horticulturists across Australia use recycled water from wastewater treatment companies to irrigate a large variety of horticultural crops. Including olives and vines to pasture, turf and vegetables. Generally, most have seen great benefits from this supply, even when salinity (commonly measured as electrical conductivity) levels are higher than their normal water sources, but within tolerable limits (some water is better than none in the short term). Until recently this source of recycled water has been readily available, once connections have been made.

However with the prolonged drought throughout most of Australia, urban householders have become resourceful and are increasing water recycling at their houses (usually grey water) to keep gardens alive. With water restriction increasing domestic users are also using water much more wisely in the house. Consequently, less water is flowing through the sewage systems to wastewater treatment plants where water can be recycled. Some wastewater treatment plants have seen 20-30% reduction in wastewater inflows.

In some cases this has led to the over allocation of recycled water supplies. It seems that the volume of water recycled from wastewater treatment plants is not as secure a water resource as some might think? This is causing some concern amongst recycled water irrigators. Farmers have built businesses around this relatively secure water supply. However, their recycled water allocations are being reduced or used in urban areas where there is a higher dollar value for the water.

Communities across Australia have benefited from recycled water as the amenity horticulture industries (arboriculture, floriculture, landscape, nursery, parks and gardens and turf sectors) use recycled water to green up community areas. Some argue that this is the best use of recycled water as communities benefit rather than individuals. However, the production horticulture (food crops) industry stress that without the ongoing regular supply of recycled water many jobs will be lost; along with the supply of food in the form of fruit and vegetables from regions which abut the cities and towns.



The problem of constant guaranteed supply is an issue that any new recycled water treatment plant needs to consider as, in some cases, it may not be possible to guarantee the wastewater treatment plant influent and recycled water volumes under drought conditions.

To add to the competition for the water, it is now also possible for advanced treatment technology to produce safe drinking (potable) water from effluent. In several countries wastewater is recycled for potable reuse via groundwater injection (e.g. Factory 21, Orange County, California, USA) or where it is added directly to surface reservoirs (e.g. NeWater, Singapore). Such planned indirect or direct potable reuse is not currently practiced in Australia, although it is being considered by some councils suffering severe water shortages. The question remains, 'where does this leave the farmers', local grown foods, local industries and job, and low food miles?



Developing Guidelines and Training Programs to Improve Knowledge of Using Recycled Water for Recreational Open Space Areas

A Smart Water funded project, managed by Arris Pty Ltd.
www.recycledwater.com.au
www.horticulture.com.au
www.smartwater.com.au

Arris Pty Ltd was recently honored to receive funding from the Victorian Smart Water Fund to lead a project to develop guidelines and training programs for improving the knowledge of using recycled water in recreational and open space areas across Melbourne. These open spaces include parks, gardens, public landscapes and turf (e.g. race tracks, ovals and golf courses), which are often referred to as amenity horticulture by the horticultural industry.

An extensive work plan and communication strategy has been approved by Smart Water and Milestone 2 is now currently underway.

The project's aim now is to undertake a key stakeholder survey to determine specific barriers and management difficulties being experienced with developing or managing recycled water uses in the open spaces of Melbourne.

If you work in the areas outlined above and would like to either:

1. Contribute ideas for the content of the guidance manual and training programs; or
2. Participate in the training program later this year.

Please give Daryl or Steve a call at Arris (contact details below) to register your interest.

The overall objectives of the project are to:

- Determine the specific needs of the amenity horticulture industry across Melbourne with regard to developing reuse schemes and irrigating with recycled water.
- Produce a Guidance Manual for Irrigation of Amenity Horticulture with Recycled Water.
- Conduct several one day workshop on irrigation of amenity horticulture with recycled water at relevant industry locations in Melbourne.



This project is funded by the Victorian water industry's Smart Water Fund program (www.smartwater.com.au) and the National Coordinator for Recycled Water Development in Horticulture (www.recycledwater.com.au), funded by Horticulture Australia Limited (www.horticulture.com.au).

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Australia

OZWATER 2007 Achieved record numbers

Source: AWA News 12/03/2007

OZWATER 2007 was a success, achieving record numbers of delegates (>1100) and booths (207), while the exhibition was abuzz with energy. Closing speakers Profs Peter Cullen and Ian Lowe, both had sobering words on climate change, while the premier of the video Roy & H.G. Turn up the Heat (sponsored by Vinidex), took an ironic look at the same topic.

Tanks Very Much

Source: ACF; ABC News; SMH (16 April 2007)

www.acfonline.org.au/uploads/res_rainwater_tanks.pdf
www.acfonline.org.au/articles/news.asp?news_id=1222&c=204647
<http://abc.net.au/news/items/200704/1897777.htm?water>
www.smh.com.au/news/environment/tanks-can-delay-need-for-salt-water-plan/2007/04/15/1176575687683.html

The Australian Conservation Foundation (ACF) has released a study entitled the economics of rainwater tanks and alternative water supply options (April 2007). The report, commissioned by the ACF, Environment Victoria and the Nature Conservation Council of NSW, has endorsed the widespread installation of rainwater tanks, concluding that installation would result in extensive savings of water, energy and money.

South Australia

Recycling Adelaide

Source: ABC News (16 March 2007)

<http://abc.net.au/news/items/200703/1873452.htm?water>

The State Government has confirmed that it will investigate the viability of a proposed water recycling plant for Adelaide, reports ABC News.

EPA Endorses Berri Baramera Wastewater Reuse Project

Source: EPA (April 2007)

www.epa.sa.gov.au/media/news148.pdf

The Environment Protection Authority (EPA) has endorsed a \$14 million contract between the Berri Baramera Council and United Utilities Australia to deliver the Berri Baramera Wastewater Reuse Project. According to the EPA, the project will achieve 100% reuse of wastewater for irrigation programs "at Berri and Baramera golf courses, the Riverland Field Days site and at Alan Glassey Park".

Rainwater Tank Incentive Increased

Source: Premier; The Advertiser. Premier's media release (10 April 2007)

www.premier.sa.gov.au/news.php?id=1453

www.news.com.au/adelaidenow/story/0,22606,21536524-5006301,00.html

Premier Mike Rann has advised that the rainwater tank rebate scheme has been widened in a bid to "encourage more homeowners to install and plumb rainwater tanks in their homes". The new scheme now offers a rebate of up to "\$800 to purchase a new rainwater tank and plumb it into an existing home... up to \$600 to plumb a rainwater tank into an existing home [and] up to \$200 for a new rainwater tank of 1,000 litres or more plumbed in the home".

Victoria

Level 3a Water Restrictions Implemented

Source: Premier's media release (22 March 2007)

www.news.com.au/heraldsun/story/0,21985,21426621-661,00.html

www.abc.net.au/news/newsitems/200703/s1879267.htm

www.theage.com.au/news/national/citys-great-water-escape/2007/03/22/1174153254923.html

Premier Steve Bracks has announced that Melbourne will move to Level 3a water restrictions from 1 April 2007. Under the new restrictions, residents can water their gardens between 6 am and 8 am twice a week, with people aged 70 and over able to water between 8 am and 10 am. One in four sports grounds can continue to water their grounds under the restrictions and commercial car washes can continue to operate. Water Minister John Thwaites advised that the Stage 4 trigger of 29.3% capacity was likely to be reached in May and that the tougher restrictions would be introduced if rain fall was insufficient

Swimming seasons extended at Aquatic centre and Bendigo East

www.bgone.com/news_local/mar07/10.shtml

Initiatives such as recycling the backwash from the pools, repairing leaks, installing water saving showerheads and recycling grey water has meant that our pool is open for the Easter school holidays.



New South Wales

Guides to Greywater Use

www.deus.nsw.gov.au/Water/Greywater/Greywater.asp#TopOfPage

The Department of Energy, Utilities and Sustainability (DEUS) has released a series of guidelines "to make it easier for householders to install grey water diversion devices and save water".

Animals to wash in recycled water at Toronga zoo

www.smh.com.au/news/national/animals-to-wash-in-recycled-water/2007/03/10/1173478729111.html

THEY'RE among Sydney's biggest consumers of water, churning through millions of litres a year for drinking, bathing and swimming.

But now animals at Taronga Zoo, including the new Asian elephants, are to become better water savers under plans to increase the amount of recycled water they use.

A zoo initiative funded by the State Government will double the capacity of the water treatment plant, saving 53 million litres of drinking water a year.

Queensland

Lockyer Valley irrigators get recycled water pledge

www.abc.net.au/news/newsitems/200705/s1924310.htm

Irrigators in the Lockyer Valley, west of Brisbane, say they have received a commitment from the Deputy Premier to have 25,000 megalitres of recycled water supplied to the region every year.

Singapore Collaboration

<http://statements.cabinet.qld.gov.au/MMS/StatementDisplaySingle.aspx?id=51408>

Minister for Natural Resources and Water. Craig Wallace has announced that the state is to collaborate with Singapore "on new research and development on water recycling, desalination and urban water management".

No Sums - No Funds

<http://abc.net.au/news/items/200703/1873883.htm?water>

Mr Turnbull has advised that he will not sign off on a \$400 million grant allocated for the states recycled water pipeline until he receives adequate financial information, reports ABC News. Reportedly, Premier Peter Beattie stated that a submission supplied to the federal government contained all necessary information, and that the federal government's delay in funding is simply because they are reluctant to invest in the project.

Pimpama Coomera recycled water pipeline

Source: Gold Coast City Council

www.goldcoastwater.com.au/t_gcw.asp?PID=5885

Construction has begun on the PIMPAMA COOMERA recycled water pipeline, which will form the backbone of the recycled water network in this master planned community, reducing dependence on distributed town water by up to 84 per cent.

Power stations to stop taking dam water

www.thewest.com.au/aapstory.aspx?StoryName=362446

The reduction from September 2007 is because Swanbank power station is expected to be supplied by recycled water from the Western Corridor Recycled Water plant.

Western Australia

New Statutory Rule - Country Towns Sewerage Amendment By-laws

<http://research.lawlex.com.au/default.asp?itid=0&ntid=0&nid=&cid=95363&jurid=&alpha=&alphaid=&ihl=&nhl=&fp=&rdt=&vaftype=&requirelogin=&tab=ind&pact=coredoc&top=exp&nav=col&docview=true>

The amending Regulations:

- (a) allow certain representatives of the Water Corporation (the Corporation) to enter onto property for purposes set out in the principal Regulations, including monitoring compliance with industrial waste permits, affixing and removing identification tags, taking samples of industrial waste, and assessing the volume of industrial waste being discharged into sewers;
- (b) make occupiers responsible for ensuring that identification tags are not removed or damaged;
- (c) require occupiers to give written notification to the Corporation when identification tags are damaged or removed, or when treatment apparatus is cleaned or maintained after 1 July 2007;
- (d) provide that the Corporation may vary or remove an industrial waste permit; and
- (e) make other minor and transitional provisions.

The amending Regulations commenced on 5 April 2007.

Australian Capital Territory

Supplementing drinking water supply with purified water

Source: Chief Minister media release (22 March 2007); ACTEW; ABC News

www.actew.com.au/water2water/
www.chiefminister.act.gov.au/media.asp?media=2384§ion=24&title=Media%20Release&id=24
<http://abc.net.au/news/items/200703/1879174.htm?water>

Chief Minister Jon Stanhope has invited ACT residents to become involved in a consultation process regarding "a proposal to supplement the ACT's drinking water supply by adding purified water to an enlarged Cotter Dam". According to Mr Stanhope, the ACT Electricity and Water's (ACTEW) water purification proposal (Water2WATER) would involve the piping of purified water from the Lower Molonglo Water Quality Control Centre into a "stream in the Lower Cotter catchment, where it would blend with other water flowing into an enlarged Cotter Dam". The community consultation will involve "a dedicated project website, a phone line for queries, briefings to community groups and a range of feedback mechanisms to encourage community views, including phone polling and formal submissions".

Overseas

Bureau of Reclamation Wants Colorado Springs to Consider Water Reuse

Source: Lawlex Water Newsfeed 21 February 2007
www.powerwater.com.au/powerwater/news/media_releases/2007/1602_water_reuse_project.htm

The U.S. Bureau of Reclamation has asked officials in Colorado Springs, CO to consider indirect potable reuse as an alternative to building a \$1 billion pipeline project.

Israel aquifer under threat

Source: AWA News 12/03/2007
www.haaretz.com/hasen/spages/823804.html

Israel's Water Authority and Health Ministry say the coastal aquifer, which supplies about 20% of the country's water, is becoming unusable due to contamination by sewage, salinisation, fertilizers, gasoline and industrial effluent, containing heavy metals and toxic organic materials.

Israel Shares Water Stories

Source: Minister for the Environment and Water Resources (19 March 2007); AJN (18 March 2007)
www.malcolmturnbull.com.au/news/article.aspx?ID=691
www.ajn.com.au/news/news.asp?pgID=2774

Minister for the Environment and Water Resources Malcolm Turnbull has signed a Declaration of Intent on water with the Israeli Minister for Infrastructure, Binyamin Ben-Eliezer, whose portfolio also includes

water. Mr Turnbull stated that due to Israel's limited natural resources and its superior research and development programs, the country had "developed a technologically advanced water sector, which is world renowned in fields such as: water management and control; water saving; water purification, desalination and recycling; drain and sewage management". Mr Turnbull expressed his desire that this agreement would "promote technical cooperation between the two countries" and "encourage more collaboration between Israel and Australia in the vital area of water".

New Water Reuse System Operating in Florida

Water Reuse News March 1, 2007
www.watereuse.org/news/wrnews_030107.html
www.bradenton.com/mld/bradenton/news/local/16763079.htm

A new water reuse system that took 12 years and \$54 million to complete is now up and running in Manatee County, FL, according to the Bradenton Herald. The Manatee Agricultural Reuse System (MARS) includes three treatment plants that provide up to 14 million gallons of reclaimed water each day for agricultural and residential irrigation. MARS, which is one of the largest reclaimed water systems in Florida, includes three pumping stations and a three million gallon storage site

Wider adoption of water recycling set for India

www.watereuse.org/news/wrnews_013007.html
www.expressstates.in/full_story.php?content_id=80363

Faced with widespread water shortages, India will need to move toward water recycling in residential complexes, offices, malls, and factories to meet water supply needs. Sanjay Nayyar, Business Head of the Waste Water Technologies division of the Acme Group, says the growing shortage of water and the consequent pressure on ground water will make water recycling an important part of India's future. Hotels, malls, and large apartment complexes operate their own wastewater treatment facilities under new Indian regulations. Nayyar says the government could further advance water recycling by offering incentives for new projects.

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Coming events

Australia

AWA Training in recycled water

www.awa.asn.au/AM/Template.cfm?Section=_b_Various_07_b_Recycled_Water_Guidelines&Template=/CM/ContentDisplay.cfm&ContentID=6276

The program for the training will include:

- An introduction to the Australian Recycled Water Guidelines - Phase 1
- Framework for the management of recycled water quality & use
- Managing health risks in recycled water
- Managing environmental risks and Impacts
- Monitoring & minimising risks in current & planned recycled water projects?
- Consultation and
- Appendices, signage, community, questions & answers

Training Dates	Location
Thursday 9th August 2007	Alice Springs
Tuesday 21st August, 2007	Adelaide
Wednesday 22 August, 2007	Perth
Monday 27th August, 2007	Brisbane
Thursday 6th Sept, 2007	Sydney
Wednesday 26th Sept, 2007	Melbourne

Queries: Diane dwiesner@awa.asn.au
Hayley hgalbraith@awa.asn.au

AWA Water and Health Specialty III Conference

May 23-24, 2007, Sydney, NSW

www.awa.asn.au/AM/Template.cfm?Section=_b_May_07_b_Chemical_Contaminants_III_Speciality_Conference&Template=/CM/HTMLDisplay.cfm&ContentID=6273

Register for AWA Water and Health Specialty III Conference, May 23-24, 2007, Mercure Hotel, Sydney. A focus on health related issues for groundwater, treated recycled water, brackish water, IPR plus NHMRC Workshop on Revision of ADWG 2004. Dr Warwick Anderson (NHMRC) Assoc.Prof. Noel Merrick (UTS) and others.

VIC: Industrial Water Recycling

May 31, 2007 Melbourne VIC Australia

Rachel-ann Martin 03 9235 1416 www.awa.asn.au/AM/Template.cfm?Section=Overview_and_Event_Calendar&Template=/CustomiBO/OnlineEvents/default.cfm&TYPE=UP&Tag=29

Integrated & Decentralised Water Systems National Specialist Network - Greywater Recycling

May 31, 2007 Melbourne VIC Australia

Sarah West (EPA Victoria) p. 03-9695-2549
www.awa.asn.au/Content/NavigationMenu2/ResourceCenter/IntegratedandDecentralisedWaterSystems/I&DWS2007SeminarSeries.pdf

Presentation Topic: SCADA technology for decentralised systems. Guest Speaker: Dr Ben Kele, University of Central Queensland

3rd AWA Water reuse & recycling conference

July 16-18, 2007, Sydney NSW

www.cwwt.unsw.edu.au/reuse07

REUSE07 is on July 16-18, 2007 at the University of New South Wales, Sydney Australia. It will showcase current research and practices aimed at meeting these challenges. Questions to be addressed include: How can optimal approaches to reuse be identified and assessed? Is reuse an economically viable strategy? What strategies will be acceptable to communities and how is this changing?

How should we assess and protect public health and environmental impacts? How effective are current treatment technologies? Registration now available.

IWES Gold Coast course

Starts July 16-20, 2007 Gold Coast Queensland.

Brochure on all courses www.iwes.com.au/pdf/Sydney%202007%20Interactive%20Brochure.pdf

Register at www.iwes.com.au

Learn about the benefits and hazards of irrigating with recycled water, and how to determine if the water quality is appropriate for the intended use. Is your recycled water fit for the intended purpose from an agronomic and environmental perspective? This is a practical course aimed at developing real skills in water recycling for agricultural and horticultural applications.

All parts of the course integrate a range of urban landscape, domestic gardens, recreational turf and production horticultural crops, as examples and case studies, to discuss the practicalities of operating and managing recycled water schemes.

Who should attend? All practitioners in the water industry who have a keen interest in growing plants with recycled water, or are developing recycled water schemes that will grow plants or have environmental impacts.

Presenters: Drs Daryl Stevens and Anne-Maree Boland

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AWA Training in recycled water

www.awa.asn.au/AM/Template.cfm?Section=_b_Various_07_b_Recycled_Water_Guidelines&Template=/CM/ContentDisplay.cfm&ContentID=6276

The Australian Guidelines for Water Recycling were released on 24 November following final approval by the Ministers of the Environment Protection and Heritage Council.

The Australian Guidelines for Water Recycling have been developed over the last three years in collaboration with the Natural Resource Management Ministerial Council and the Australian Health Ministers Conference. The development process included a public comment phase on a draft version of the document in late 2005/early 2006 and an international peer review. Registration now open for a one day workshop to be trained in using the Australian Guidelines for Water Recycling.

Alice Springs August 9

Diplomat Hotel, Alice Springs, NT

Adelaide August 21

Sebel Playford Hotel, 120 North Terrace, Adelaide, SA

Perth August 22

City West Function Centre, Plaistowe Mews West, Perth, WA

Brisbane August 27

The Greek Club, 29 Edmondstone Street, South Brisbane, QLD

Sydney September 6

Citigate Central (Carlton Crest), 169 Thomas Street, Sydney, NSW

Melbourne September 26

Eden on the Park, 6 Queen Street, Melbourne, Vic

11th World Congress – Anaerobic Digestion: Bio-energy for our Future

September 23-27, 2007, Brisbane

www.ad11.org

Brisbane Water's biosolids stabilisation plant using Cambi thermal pretreatment will feature both as keynote address (by Robin Lewis) and as technical tour at the upcoming International Water Association 11th World Congress on Anaerobic Digestion (AD11).





Good reads

Ozwater 07

www.awa.asn.au/AM/Template.cfm?Section=Publications1&Template=/CM/HTMLDisplay.cfm&ContentID=4588

Conference Proceedings from OZWATER 07, Sydney, on CDROM now. Also one or two copies from AWA MEMBRANES Specialty II Conference, Feb 07. Price \$55 each including GST plus postage and handling.

Water Treatment: Principles and Design

Now in second edition updated to address current practices and technologies. Practical issues in plant design and distribution including emerging chemicals, membranes applications. Each chapter ends with useful discussion of problems and solutions. Cost \$198 plus postage and handling.

New Websites

The ABC has a web site devoted to water, with information, links and discussions.

<http://abc.net.au/water>

Waste Water Solutions improving recycled water for Irrigation use with gypsum injection

www.wastewatersolutionsinc.com/

About ReWater

This newsletter, ReWater, has been designed to make information relevant to recycled/reclaimed water use in horticulture more accessible to horticulturalist (growers/farmers), the water industry and other interested people. It is part of the service provided by the National Coordinator for Recycled Water Development in Horticulture (www.recycledwater.com.au), funding through Horticulture Australia.

Back issues and instructions for subscribing to receive ReWater electronically on a quarterly basis can be accessed at www.recycledwater.com.au/newsletter.php

We would appreciate your feedback and suggestions for contributions. Please email to rewater@arris.com.au or contact us on 03 9421 1701.

The delivery of research and development outcomes from this project to the horticultural industry is made possible by the Commonwealth Government's 50 % investment in all Horticulture Australia's research and development initiatives.

Edited and designed by Arris Pty Ltd



ACN. 092 739 574

DISCLAIMER: Every attempt is made to ensure the accuracy of all statements and claims made in ReWater. However, due to the nature of the industry, it is impossible for us to know your precise circumstances. Therefore, we disclaim any responsibility for any action you take as a result of reading ReWater.

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