

rewater

farming with recycled water



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Construction of the Coal River Water Recycling scheme in Tasmania is well underway, thanks to funding from the Commonwealth Government's Natural Heritage Trust.

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Green Light for Melbourne's Eastern Recycled Water Irrigation Scheme

The Bracks Government has given the go-ahead in January for the Eastern Irrigation Scheme – a \$20m project to deliver recycled water to irrigators and agribusiness in Melbourne's Outer East.

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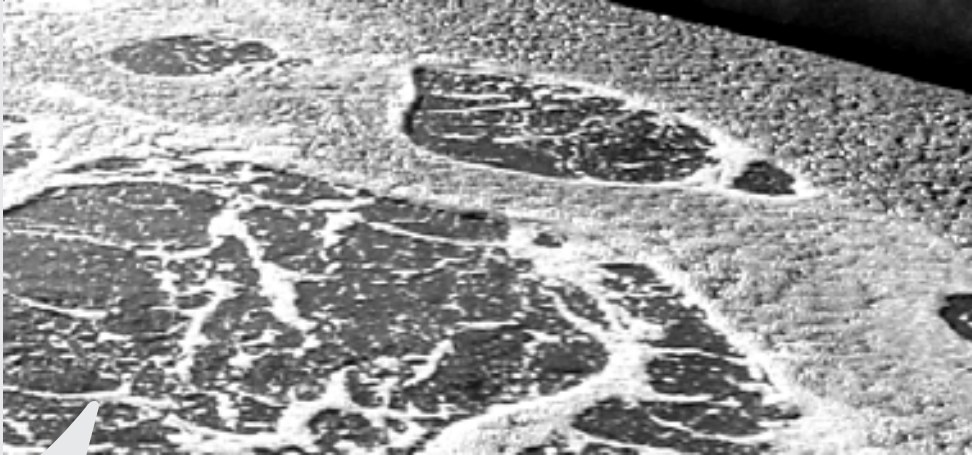
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Plans to drought proof Werribee using recycled water

A product of the Coordinator Reclaimed Water Development Horticulture project. Funded by Horticulture Australia Limited





Tasmanian Water Recycling Scheme well underway

Construction of the Coal River Water Recycling Scheme (Tasmania) is underway, thanks to \$8.3m from the Commonwealth Government's Natural Heritage Trust.

Totalling \$16 million, the scheme includes \$3m from Clarence City Council, an anticipated investment and in-kind contributions of \$5m from the Coal River Valley and Clarence City Council farming communities.

Supplying over 2,500 megalitres of recycled water to the valley annually, it will be the largest recycled water scheme in Tasmania.

Increased water availability will provide a tremendous boost to agricultural development in the region and will complement the existing South East Irrigation Scheme.

Now a recognised major agricultural production centre, the Coal River Valley is home to Tasmania's fastest growing wine producing region.

The valley is also experiencing significant growth in the development of:

- orchards
- cereal crop production
- fodder crops
- turf production
- vegetables (for seed, processing and fresh market)
- poppy fields
- olive groves

New ventures are being investigated and planned for the future.

Established by the Clarence City Council, under the Tasmanian Local Government Act (1993), the Coal River Water Recycling Authority was designed to develop and manage the scheme.

Early in 2004, the Authority plans to further develop guidelines and a series of training programs, to ensure users of the scheme are well prepared and educated in the sustainable use of recycled water.

The region's landowners have been extensively consulted to assist with the development of the scheme. A key issue has been providing guidance and training in the sustainable use and management of recycled water.

The training programs will focus on: achieving and maintaining best irrigation practice, management of public health, food safety, and effective management of the occupational health and safety issues associated with the use of recycled water.

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WaterReuse Association Releases Call for Papers

The WaterReuse Association announced a Call for Papers for the 19th Annual WaterReuse Symposium, which is the largest conference devoted entirely to water reuse.

Abstracts are requested in a number of different subject areas and were due by February 11, 2004.

The theme for this year's Symposium, which will be held on September 19-22, 2004 in Phoenix, AZ, is *Water Reuse - Bringing Life to the Desert*.

For a copy of the [Call for Papers](#), including the Abstract Submittal form, visit the Association's website at www.WaterReuse.org and look for the [Symposium announcement](#).

From the editor

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

We want ReWater to become your forum to communicate your thoughts about the beneficial use of reclaimed water.

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

If you have articles, ideas or want to raise issues in the letters to the editor section of ReWater, submit them to the Coordinator for Reclaimed Water Development, Horticulture:

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Tasmanian Water Recycling Scheme well underway

From Page 2

The Authority proposes to develop these programs jointly with the Tasmanian Director of Public Health, Workplace Standards Tasmania and the Tasmanian Food Safety Forum to ensure the users have direct access to the key expertise in the state.

One benefit of a joint program is that the training and education programs will be widened beyond the recycled water use issues, providing greater benefit to the farming community in the region.

The training programs are scheduled between April and August 2004. Construction will be completed and recycled water will be available in August.

The authority has also committed to engaging an extension officer, whose role will be to assist users in the day-to-day implementation of their Irrigation Management Plans. The officer will provide a valuable audit function and up-to-date knowledge of the key issues associated with the overall management of the Scheme.

The University of Tasmania will have an important research and development role in the scheme.

Following an agreement between the University and the Clarence City Council, the University Farm, located in the Coal River Valley, will undertake a range of R&D projects. These will be determined on an ongoing basis as the Scheme develops.

Key roles will be to conduct a number of demonstration projects and coordinate a systems approach to wastewater re-use, thereby maximising the benefits for users of the Scheme, who are located "just down the road".

For further information contact:
John Steven or Geoff Cuthbert (03) 6245 8600



Green light for Melbourne's eastern water recycling scheme

A \$20 million project to deliver recycled water, to dozens of irrigators and agribusinesses in Melbourne's outer east, was given the green light by the Bracks Government in January.

Victorian Water Minister John Thwaites said the project, part of the Eastern Irrigation Scheme, had the potential to become one of the most significant recycling schemes in Australia.

'The Government has now given the project partners, Melbourne Water and water engineering company Earth Tech, the go-ahead to proceed,' Mr Thwaites said.

Documentation between the parties is expected to be finalised next month, while pipeline construction has commenced.

"This has been a complex process but the Government has been determined to get the details right to protect the taxpayer. The framework has now been established to allow the project to proceed."

"The project will give farmers in the Cranbourne and Five Ways areas access to a secure supply of high-quality water for their farms – delivering significant economic, social and environmental benefits."

Mr Thwaites said 43 farmers at 54 sites had signed up to the scheme so far.

As part of the project, a pipeline to carry recycled water from the Eastern Treatment Plant (Bangholme) to Five Ways (south of Cranbourne) will be built.

During the initial stages of the project, the equivalent of 3,200 Olympic swimming pools of Class A recycled water will be available to customers each year.

The Department of Human Services classifies Class A recycled water as safe for use on food crops – including those which are eaten raw. The EPA supports its use.

'The Bracks Government aims to increase the amount of 'waste' water Melbourne recycles to 20 percent by 2010. Schemes such as this are a tremendous step towards achieving that target,' Mr Thwaites said.

"The scheme will also result in a reduction in the amount of treated waste water discharged from the outfall at Gunnamatta."

It is expected the scheme will be operational during next summer.

Extract from a press release distributed 08/01/04, Acting Premier of Victoria



from water reuse news

Napa County Vintners Increasingly Use Recycled Water

Some Californian towns having difficulty disposing of treated wastewater are gaining economic benefits selling the highly treated water to area vineyards.

The town of Yountville recently signed contracts with Clos Du Val Wine Company, Stag's Leap Wine Cellars and Chimney Rock Winery for purchase of excess treated water.

St. Helena, which had to dump treated water into a neighboring river during the rainy season, opted to invest \$1.8 in a recycled water project.

Other communities including Calistoga, American Canyon and Napa are launching similar projects.

By purchasing the highly treated water, local irrigators can nourish varieties such as cabernet sauvignon during the dry summer months.

"This is one of those, as far as I'm concerned, classic win-win situations. The town's looking for ways of dispersing the water and we need it," said Clos Du Val CEO, Dave Campbell.

www.watereuse.org/newsletter/news.htm or www.watereuse.org

For further information, visit Napa News' web site at:

www.napanews.com/templates/index.cfm?template=story_full&id=2D4D72E8-D4CA-44AE-9C6A-F14D0612A3D1

Market Based Initiatives used to Address Dryland Salinity

Australia's Natural Resource Management Ministerial Council (NRMMC) is working with CSIRO to set up a pilot trading and offset program.

The program will tackle dryland salinity in Victoria's Avoca-Loddon-Campaspe region.

The \$360,000 project will be led by CSIRO Land and Water and funded by the National Market-Based Instruments (MBIs) Pilot Program.

MBIs investigate ways to use innovative financial arrangements, such as trading mechanisms, auctions and price signals, to encourage better land and water management and reduce the impact of salinity.

Federal Environment and Heritage minister Dr David Kemp, explained the process of a re-charge credit scheme.

"A re-charge credit scheme involves landholders choosing the most cost effective way to manage salinity levels. To ensure salinity caps or targets can be achieved, the landholders themselves can choose to purchase credits from other landholders who may be able to achieve the same results more cheaply. They then receive credits for any extra reductions achieved," Dr Kemp said.

Federal Agriculture, Fisheries and Forestry Minister Warren Truss notes the national and international interest in MBIs because they offer great potential in the effort to conserve biodiversity, reduce salinity and manage water allocation within environmental limits. For more details on the MBIs Pilots Program, visit: www.napswg.gov.au/about/mbi.html

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from water reuse news (cont)

“Water Recycling for Our Cities” Issued by Australian Working Group

An independent working group for the Australian Prime Minister’s Science, Engineering, and Innovation Council concluded that recycled water is one of a number of solutions available for Australia’s increasing demand of water use in its cities.

The working group concluded recycled water is a valuable resource that should not be wasted and that can be used in a safe and sustainable manner to reduce pressures on limited drinking water resources.

The working group also advocated that Australia needs to invest now in research and demonstration of some of the options available so that the correct choices for the future can be made.

It was emphasised that innovation must be encouraged and any regulations which are put in place must focus on outcomes.

To view the full set of papers presented at the meeting on recycled water, visit the following website and look under the heading, “Recycling Water for our Cities”:

www.dest.gov.au/science/pmseic/meetings/1thmeeting.htm

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n brief

National Guidelines

Revision of the National Guidelines on Water Recycling officially began with the first meeting (04/02/04) of the three working groups involved.

The three working groups are:

- Risk Management and Infrastructure
- Managing Health Risks
- Environmental Risk

The aim is to finalise the revision by December 2004 for approval by the relevant bodies.

Publications/Good reads

HEALTHSTREAM (12/03 issue) is available and includes useful articles about the new National Water Recycling Guidelines, WHO recreational water quality guidelines and an urban myth about PET bottles.

www.waterquality.crc.org.au

(AWA Water News, Jan 2004)

‘The water use and reuse divide’ (media release). The Australian Academy of Technological Sciences and Engineering.

www.atse.org.au/events/vicsymp2003/symp2003-media-7.htm

Websites roundup

Prime Minister’s Science, Engineering and Innovation Council - Recycling Water for our Cities.

www.dest.gov.au/science/pmseic/meetings/11thmeeting.htm

Californian Monterey Regional Water Pollution Control Agency.

www.mrwpc.org/html/water_recycling.html

www.watereuse.org/Pages/studiestwo.html





Sewage Treatment: Risk Assessment and Triple Bottom Line Workshop

A sewage treatment workshop: Risk Assessment and Triple Bottom Line will be held in Cairns on 5-7 April this year.

A three-day workshop for people and organisations responsible for sewage management.

The management of sewage is evolving to incorporate a life cycle approach, which considers risk management and the waste management hierarchy - source reduction, system management, treatment, water recycling and discharge.

Rapid advances in technology and management capability in this field are raising a number of important issues.

One of the major concerns of local governments is how to invest scarce resources to obtain the best results.

For more information, or to become involved in the program. Please email your contact details to: sewage.conference@epa.qld.gov.au

or contact

Kerry Moore

Environmental Operations

Environmental Protection Agency

Cairns

Tel: (07) 4046 6750

Fax: (07) 4046 6606

A Call for Papers document can be downloaded from our workshop web site:

www.epa.qld.gov.au/about_the_epa/coming_events/conferences_and_seminars/sewage_management/

Intensive course on Wastewater Recycling

The Enviro 04 Convention and Exhibition will be held in Sydney in late March.

Enviro 04 is a platform for five environment industry associations to run their biennial conferences and showcase their technology, products, services and research in a combined trade exhibition.

With six conferences: Sustainable Industry; Water; Waste; Sustainable energy; Business of the environment; and advances in odour management; and a major trade exhibition, there will be major networking opportunities.

The convention will be held at the Sydney Convention and Exhibition Centre from March 28 to April 1, 2004.

For further details, go to <http://www.enviroaust.net>

IWES short courses - water and environmental management

IWES are running water and environmental management short courses in Melbourne during February.

The courses include:

- Water Re-use
- Principles of Wastewater Treatment
- Industrial Wastewater Treatment
- Ecological Risk Assessment

For further information: www.iwes.com.au

or freecall 1800 000 404

Fax 61 7 3379 6657

Email admin@iwes.com.au

International Workshop - Implementation and Operation of Municipal Wastewater Reuse Plants

The "International Workshop on Implementation and operation of Municipal Wastewater Plants will take place on March 11-12, 2004 in THESSALONIKI, Greece.

The workshop is organised in the framework of the EC funded project Aquarec and is supported by EUREAU www.aquarec.org



Workshop on Contaminants and Ecological Risk Assessment

A Workshop on Contaminants and Ecological Risk Assessment will be held on 5 - 7 April 2004 in Adelaide, Australia.

Abstracts were due on 19 December 2003.

Registrations are now open via web <http://www.clw.csiro.au/conferences/contaminants/>

The science of ecological risk assessment (ERA) of contaminants is lagging behind human health risk assessment in Australia. There is an urgent need to bring together the existing knowledge in the area of quantitative risk assessment for environmental contaminants.

The conference will focus on the contaminants in the environment originating from anthropogenic activities and address the components of ERA related to sources, exposure pathways and toxicity to receptor organisms.

Key topics

- * Problem definition; contaminant hazard assessment
- * Exposure pathway analysis
- * Bio-availability
- * Ecotoxicology
- * Quantitative consequence analysis
- * Putting it all together
- * Policy formulation
- * Case studies

Conference organisers will welcome case studies that fit in to one or several of the above themes.

The conference will be held at the Hawker Conference Centre, Waite Campus, Urrbrae, Adelaide, South Australia.

Enquiries:

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Open Day - Melbourne Water Western Treatment Plant

An open day was held on the 25th of February at Melbourne Water's Western Treatment Plant. This was a great opportunity to view the plant and its operation, as well as ask representatives from different government authorities about recycled water.

Approximately 40 growers attended and were taken on a tour of the 55 East Lagoon, which is where the water recycling facility is located. Key issues highlighted for discussion by the growers during the tours were water quality (microbial and salts) and the 31st of March deadline for Recycled water contracts, which had been defined by Southern Rural Water. Further tours will be undertaken when the chlorination plant is completed in August.

Nominations have been asked for the stakeholder reference group that forms an integral part of the Werribee Irrigation District Project Team. These nominations are due by the 9th of March. Please contact Martin Kent (Southern Rural Water – (03) 5139 3162) for more information or to nominate someone to be on the stakeholder reference group.

For more information on the Werribee Treatment Plant contact Peta Maddy (Project Manager) on (03) 9235 2102 or <http://www.melbournewater.com.au/> and click the *Water Recycling* menu.

Biosolids Specialty II Conference

Sydney, 2nd and 3rd June 2004

Communicating with the Public *Post Conference* Workshop Friday 4 June 2004. www.awa.asn.au/event.BSC2/

Making sure the public learns the facts from the scientists and the experts in any field is important. Often these individuals are not familiar with how best to explain difficult concepts and new ideas to suspicious, anxious audiences.

This Workshop will be facilitated by a behavioural psychologist specialising in community attitudinal change, Robert Curnow from Community Change, Melbourne.

Recently, Robert has run a series of Workshops on public acceptance of, and attitudes to, recycled water. He also worked on recent successful litter reduction campaigns in Victoria.

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Plans to Drought Proof Werribee using recycled water

Melbourne's biggest commercial recycled water project, announced in January by Acting Premier John Thwaites, will provide a new sustainable future both for Werribee vegetable growers and for local rivers.

"This hugely significant project will deliver up to 5,500 megalitres of recycled water a year to about 90 farmers in the Werribee area," Mr Thwaites said.

"This is the equivalent of 5,500 Olympic pools of recycled water that will help drought-proof Werribee farmers and help the environment.

"This will provide those farmers with security for the future and the knowledge that their businesses can be made truly sustainable – even in the face of severe drought as at present.

"In addition, the use of recycled water will take pressure off the Werribee River and underground aquifers – the previous main sources of irrigation water in the region."

The project will use Class A recycled water from the Western Treatment Plant that would otherwise be discharged into Port Phillip Bay.

The Department of Human Services has classified Class A recycled water as safe for use on irrigation or food crops – including those eaten raw. The EPA also supports its use.

Initially, the recycled water will be 'shandied' with river water to manage its salinity. Over the next five years, Melbourne Water will progressively reduce the salinity of the recycled water.

"Using recycled water has huge benefits for farmers, the environment, and for the Victorian economy, and I am very pleased to announce the

go-ahead for the Werribee Irrigation District Recycled Water Project today."

The project represents a significant step towards achieving the Bracks Government target of recycling 20 per cent of Melbourne's 'waste' water by 2010.

It also reduces the amount of waste water and nutrients discharged into Port Phillip Bay – another environmental benefit.

The Government's efforts to promote recycling received another boost with the announcement of the go-ahead for the Eastern Irrigation Scheme. See Page 2.

"The combination of these two projects means we will already be recycling 14 per cent of Melbourne's 'waste' water. And there is scope for these projects to grow still further.

Discussions are continuing with Bacchus Marsh farmers about what access they could get to recycled water, Mr Thwaites said.

"Talks with Frank Costa and Richard Pratt on their proposal for a research and development facility, recycling water from the Western Treatment Plant, are also proceeding positively."

