



## SA Water Research Centre for Water Management & Reuse (RCWM&R)

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### September e-newsletter

#### CWSS name change

The Centre for Water Science and System will be known as the SA Water Research Centre for Water Management & Reuse (RCWM&R). The name change reflects the centre's commitment to strategic research into water management and reuse issues with positive outcomes for wider industry and community application.

#### Highlights and Achievements

- **Don Bursill receives Honorary Doctorate for WQ Research**

Former CEO of the CRC for Water Quality and Treatment, Don Bursill was made an Honorary Doctor of the University of South Australia at a graduation ceremony on Thursday 16 August. This recognised his significant contributions to water quality research.

He was made an Adjunct Research Professor at RCWM&R in 1993.

#### Teaching and Learning

- **Forthcoming Workshops:**

**9 & 10 October-**

**Water Proofing the Northern Adelaide Region Basic Integrated Water Management Modelling** using the WaterCress Program.

**30 October, 1 & 2 November-**

**Urban Stormwater Drainage Workshops**

- A Guide to Stormwater Drainage
- DRAINS design methods
- DRAINS Investigation methods

Please email [roopa.howard@unisa.edu.au](mailto:roopa.howard@unisa.edu.au) if you would like more information about forthcoming workshops.

- **September Workshops:**

- RORB workshop conducted by Guna Hewa (19 September)
- HECRAS workshop conducted by Guna Hewa (20 September)
- Introduction to Stormwater Design workshop conducted by Guna Hewa (21 September)
- Drains Design workshop conducted by Terry Lucke (27 September)
- WSUD workshop conducted by Simon Beecham (28 September)

## Research and Research Education

- **Shandong Training Group**

RCWM&R ran a full-day workshop on 19th September for a group of 16 mayors, deputy mayors and (equivalent positions) from counties across Shandong Province and its government agencies. This group has come to South Australia for a 6 month training program managed by the China Training Centre (CTC).

The morning session consisted of three 45 minute presentations given by Simon Beecham, David Pezzaniti and John Van Leeuwen. The presentations provided information on RCWM&R' research programs and went on to explore collaborative opportunities with Chinese agencies from Shandong.

- **Call for Summer Research Scholarship program November 2007 - March 2008**

The CRC for Water Quality Research will conduct a Summer Research Scholarship program for 2007-08 and will fund six scholarships on this occasion on behalf of the Implementation Committee for Water Quality Research Australia Limited (WQRAL).

The scholarships will provide talented undergraduates with career and research opportunities relevant to the needs of the Australian water industry. Applicants for these projects are expected to be currently completing the third or fourth year of degree programs but often have qualifications exceeding this requirement.

For further information contact Professor Dennis Mulcahy Ph.: (08) 8302 3149.  
Email: [dennis.mulcahy@unisa.edu.au](mailto:dennis.mulcahy@unisa.edu.au)

## Research Publications

- Khiadani, M., **Beecham, S.** and Kandasamy, J., Velocity Distributions in Spatially-Variied Flow with Increasing Discharge, Journal of Hydraulic Engineering, ASCE, 133(7), pp 721-735, 2007.
- **Myers, B., Sagi, I., van Leeuwen, J., Beecham, S.**, Water Quality Improvement by Base Course Aggregate in a Permeable Pavement with Underlying Reservoir Structure, 5<sup>th</sup> International Water Sensitive Urban Design Conference, Sydney, Australia.
- **Beecham, S. and Myers, B.** Paving the Way to Sustainable Cities – Designing Porous and Permeable Pavement Structures for Water Reuse, Keynote Paper, SIA Annual Conference, Wollongong, 2007 (proceedings on CD).
- **A Lee, G Hewa, D Pezzaniti, J.R. Argue**, The use of Water Sensitive Urban Design (WSUD) to minimize impacts of urbanization on natural stream low flow regimes, paper presented at the 5th International Water Sensitive Urban Design Conference, 21-23 August 2007, Sydney, Australia.
- **Argue, J.R. and Pezzaniti, D.** WSUD (stormwater) Practices - Learning from Nature: a discussion, 5th International Water Sensitive Urban Design Conference, Sydney, 2007.
- **Argue, J.R. and Pezzaniti, D.** Towards sustainability of waterways in urbanising catchments. NOVATECH 2007. Sustainable Techniques and Strategies in Urban Water Management Lyon, France.
- Soh YC, Roddick F, **van Leeuwen J** (2007) The Potential Effects of Climate Change and Ozone Depletion on Australian Water Quality, Quantity and Treatability. *The Environmentalist*. Accepted (in press and available online)

<http://www.unisa.edu.au/water/WWT/Publications/Yeow%20Chong%20Jonathan%20Soh%20ERE%202005%20Paper.pdf>

- **Hewa, G. A.**, McMahon, T. A., Wang, Q. J., Peel, M., and Nathan R. J. (2007) Suitability of Generalised Extreme Value (GEV) Distribution Estimated by LH-Moments for Low Flow Frequency analyses. *Water Resources Research*. 43, W 06301, doi:10.1029, 2006WR004913.

## International

- **Visiting researcher welcome**

RCWM&R welcomes visiting researcher Dr Mohammad Parvin Nia, Shiraz University, Iran. Dr Parvin Nia will undertake research into the *Treatment and Reclamation of Urban Storm Runoff Using Permeable Reactive Barriers*, during his one year stay at the centre.

## Media coverage

### Professor Simon Beecham

- Simon Beecham was interviewed by Carole Whitelock ABC 891 Adelaide 27/08/2007 - 01:16 PM

### **DESALINATION PLANT AT MARION BAY**

**Professor Beecham** says desalination technology is progressing. He says the ideal situation is to develop a diversified water supply stream. He says Adelaide has a very good diversification of its water supply systems. He says Adelaide should harvest more storm water and Planning SA are working on this.

- Simon Beecham was interviewed by Ian Henschke ABC Channel 2 Adelaide Stateline - 31/08/2007 - 07:40 PM

### **CONSERVING WATER**

**Professor Beecham** says a water collection system has been developed for the top of city buildings. He says SA needs to take stock of climate change and growing populations and discusses easy, cheap and sustainable ways of harvesting water around the home.

- Simon Beecham was interviewed by Melody Horrill, Channel 7 News, 10 May 2007 – 6:00 PM

### **GREEN GUTTERS**

**Professor Beecham** says we could bring ecology into urban environments by replacing concrete gutters with natural filters, such as reeds and harvest stormwater runoff using these natural filters. The water is further filtered through a bioactive filter buried under the soil which purifies the water and makes it suitable for use for irrigation and toilet flushing which makes up for 70 percent of water usage. This technology could be used in built up areas and direct water to man made lake or underground storage facilities. He says the runoff from recent rains in Adelaide could fill 600 Olympic size swimming pools.

- Simon Beecham was interviewed by David Bevan, ABC 891 Adelaide, 17 September, 2007.

### **WATER CONSERVATION**

**Professor Beecham** talks about ways to catch rainwater. He says they've developed a technology at the **University of SA** with their research partner SA Water that enables people to put underneath one car space on their driveway 4,000 litres of rainwater storage. He says the cost would be comparable to buying a rainwater tank. He says a company such as Hansons will supply you with aggregate.

Bevan says there isn't a lot of money in this state. He says last week, he got in the car and drove out to Mawson Lakes and spoke to **Simon Beecham** who is a water engineer based at **UniSA**. He says he will bring listeners one interview today about the desalination plant, tomorrow he will bring listeners another part where Simon was asked 'do people have to change their expectations?'

### **Professor Don Bursill**

- Professor Bursill was interviewed by ABC South Australia 11/9/07  
<http://www.abc.net.au/news/stories/2007/09/11/2030287.htm?site=sa>

ABC News 11/9/07

<http://www.abc.net.au/news/stories/2007/09/11/2030287.htm>

ABC Online 11/9/07

<http://abc.net.au/cgi-bin/common/printfriendly.pl?>

<http://www.abc.net.au/pm/content/2007/s2030300.htm>

Radio National (National Australia) PM - 11/09/2007 - 05:48 PM

Emma Alberici *This program or part thereof is syndicated to 7 station/s*

### **ADELAIDE'S PROPOSED DESALINATION PLANT**

**Professor Bursill, from the University of South Australia**, is a former chief scientist with the state's water utility, SA Water. He says Adelaide is not at risk of running out of water, but a desalination plant makes sense nonetheless. "The last time that Adelaide wasn't able to source its water from either the Mt Lofty or the river at the same time was back in 1967, so it may well be that with climate change this might happen a bit more often," he said. "Therefore I think the desalination option will be an insurance policy if that happens in the future. "The amount of water that Adelaide takes from the River Murray is really very small. It's less than 1 per cent of the total abstractions, it's less than 2 per cent of the average flow of the river into South Australia on long-term average flow ...

### **Dr Ian Clark**

- **Dr Clark in report by** ABC North & West SA (Port Pirie) Morning Show - 10/09/2007 - 08:42 AM Kieran Weir

### **FIELD DAY AT APPILA SPRINGS**

Dr Clark was a presenter at the annual environment field day at the Appila Springs, along with Kay Jeskie, a local environmentalist; Louise George on seeds; David Sloper an NRM officer and others. The group celebrated their 10th birthday and have established a series of green corridors between the Rocky River and the Peake and Marion Ranges. The field day was sponsored by the Northern and Yorke NRM Board.

### **ICE WaRM**

ICE WaRM featured in an *Australian Financial Review* article on 10 September about the launch of a major post graduate program to train future water leaders. The article mentions the current master's degree, graduate diploma and graduate certificate currently offered by five universities, including UniSA.