

The English poet, Samuel Taylor Coleridge, famously wrote 'Water, water everywhere (but not a drop to drink)'. This captures well the challenges of urban water management; flooding and environmental degradation from stormwater runoff, yet a scarcity of water resources of sufficient quality to sustain humans and the environment.

The 7th Urban Drainage Modelling and 4th Water Sensitive Urban Design Conference bring together a diverse range of experts to share their insights and perspectives. The conference discusses approaches to modelling and managing drainage systems, in order to mitigate flooding, to reduce environmental impacts, to maximise benefits relative to costs, and to achieve rapid adoption of the sustainable water management technologies. It also explores the technical, design, institutional and social aspects of improving the way urban water resources are managed

One key highlight of this conference is the demonstration of integrated approaches. Many of the papers demonstrate real advances in simultaneously considering a range of objectives in urban water management, and demonstrate the ability of engineers, scientists, social scientists, planners and landscape architects to work together in multi-disciplinary teams to develop urban water solutions for the long-term benefits of communities.

At the same time, many papers enhance understanding of the fundamental underpinning sciences of urban drainage modelling and water sensitive urban design. For example, there is a strong focus on the consideration of uncertainty in decision-making and assessment of system behaviour. Novel technological approaches, both for modelling urban drainage systems, and for improving water quality, are showcased, with evaluations of their performance. Issues related to, capacity building and policy programs that underpin rapid uptake of WSUD are examined.

Three Specialist Forums during the conference will provide in-depth discussions on three topics:

1. Integrated decision-making techniques
2. Understanding institutional capacity and organisational change
3. Emerging issues and directions in Water Sensitive Urban Design

## **7TH URBAN DRAINAGE MODELLING**

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The Urban Drainage Modelling (UDM) conference series has a proud history, commencing in 1986 in Dubrovnik, Yugoslavia. In the intervening period, the conference has grown in impact. The last one, in Dresden, Germany, in 2004, was highly successful. The conference series is guided by the IWA/IAHR Joint Committee on Urban Drainage. The 7th UDM covers a range of topics, including:

- Urban flooding and risk management
- Modelling pollutant generation, transport and sewer processes
- Data requirements, optimisation and uncertainty
- Advances in decision support and software tools
- Real-time control systems
- Modelling socio-economic and human health impacts.

#### 4TH WATER SENSITIVE URBAN DESIGN

The Water Sensitive Urban Design (WSUD) conference series started in Melbourne in 2000, and has been run in Adelaide and Brisbane, with increasing audiences in number and diversity. The 4th WSUD conference reports new advances in approaches to urban water management, not only in terms of technology, but in the way institutions and society participates in the pursuit of sustainability. The 4th WSUD covers a range of topics, including:

- Application of novel technologies
- Integration into the urban landscape and built environment
- Overcoming institutional and socio-economic impediments to WSUD
- Case studies and lessons learnt
- Environmental impacts
- Construction, maintenance and lifecycle costs
- Modelling for integrated urban water management

We would like to offer our particular thanks to our sponsors, to the Organising Committee, to the Scientific Committee, and to our Keynote Speakers, who made critical contributions to ensure the success and quality of this conference. We owe a special thank-you to the host organisations: the International Water Association, the Institute for Sustainable Water Resources at Monash University, Engineers Australia and the Stormwater Industry Association.

We are especially thankful to the reviewers, who spent lots of their valuable time supporting g this conference: Robin Allison, Herv Andrieu, Richard Ashley, James Ball, Sylvie Barraud, Simon Beecham, Jean-Luc Bertrand-Krajewski, Sophie Bourgues, Rebekah Brown, Dale Browne, David Butler, Jan Butz, Fiona Chandler, Francis Chiew, Gary Codner, Hubert Colas, Peter Coombes, Allen Davis, Clare Diaper, Peter Dipprose, Slobodan Djordjevic, Hugh Duncan, Charles Eason, Thomas Einfalt, Sandy Elliott, Erwin Weinmann, Matt Francey, Lothar Fuchs, Ben Furmage, Jorge Gironas, Tim Grant, Stephen Gray, Margaret Greenway, James Groovs, Kapil Gupta, Belinda Hatt, Dragan Hranisavljevic, Florence Jacquet, Ketah Jansons, George Kuczera, Anthony Ladson, Eric Livingston, Cedo Maksimovic, Jiri Marsalek, Tony McAlister, David McCarty, Andrew McCowan, Robert McLaughlan, Grace Mitchell, Gavin Mudd, Blair Nancarrow, Manfred Ostrowski, Vin Pettigrove, David Pezzaniti, Robert Pitt, Natasha Porter, Dusan Prodanovic, Wolfgang Rauch, Joerg Rieckermann, Larry Roesner, Graham Rooney, Sharyn RossRakesh, Adrian Saul, Dragan Savic, Liz Sharp, Earl Shaver, William Shuster, Nilmini Siriwardene, Virginia Stovin, Eric Strecker, Simon Tait, Chris Tanner, Andr. Taylor, Sam Trowsdale, Peter Vanrolleghem, Chris Walsh, Tony Weber, Patrick Willems, Tony Wong, Rick Wootten and Mitsuyoshi Zaizen.

We wish you all the best for the 7th UDM and 4th WSUD conference, and hope that it helps to inspire you in your future contributions to sustaining the future of urban water resources.

**Ana Deletic and Tim Fletcher**

Co-Chairs of Organising Committee

## 7th International Conference on Urban Drainage Modelling and the 4th International Conference on Water Sensitive Urban Design; Book of Proceedings

Deletic, Ana; Fletcher, Tim International Conference on Urban Drainage Modelling (7th : 2006 : Melbourne, Australia)

**Abstract:** This conference incorporates the 7th International Conference on Urban Drainage Modelling and the 4th International Conference on Water Sensitive Urban Design and is hosted by the Institute for Sustainable Water Resources, Engineers Australia, International Water Association, and the Stormwater Industry Association. This conference deals with two highly topical issues in management of Urban Water: (i) modelling of urban drainage systems and the interfaces to other parts of urban water cycle; and (ii) current achievements and problems in Water Sensitive Urban Design (WSUD), also known as Low Impact Development Design.

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Editorial

Deletic, Ana; Fletcher, Tim

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