

## 2010 Pre Conference Workshops Sessions

Monday, 8<sup>th</sup> November

### Full Day Workshops

9.00 am – 5.00 pm

#### Planning for Integrated Urban Water Management

**Presented by: Clearwater**

This workshop covers the issues and critical steps required to plan a sustainable Integrated Urban Water Management project. This interactive course outlines key steps to planning for sustainable water use including designing for consumption reduction, reuse without treatment, source replacement / substitution, harvesting and treatment. The workshop will cover all relevant state and federal regulations, guidelines, and risk assessment procedures. Life cycle costing and calculating payback periods are also covered.

#### Stormwater Pollution Management and Treatment

**Presented by: Mr. Grant Witheridge, Catchments and Creeks Pty Ltd**

A medium-level course discussing the impacts of stormwater pollution, the common types of pollutants, and the potential impacts on various receiving waters. Discussion is provided on various treatment techniques and methods for selecting an appropriate treatment system for various catchment conditions. The course concludes with a discussion on Water Sensitive Urban Design with reference to several case studies.

#### Construction and Establishment of Vegetated Stormwater Systems

**Presented by: Shaun Leinster, Designflow and Damian McCann, Australian Wetlands**

This one-day course provides detailed guidance on the construction and establishment of vegetated stormwater management systems in order to address the key issues faced during on-ground delivery. Stormwater management systems such as bioretention systems, wetlands and swales are now common elements in all new developments and infrastructure projects in SEQ. However they must be constructed and established effectively in order to realise the benefits. Correct construction and establishment can minimise construction costs and timeframes.

The course will include an overview of the protocols that will guide the delivery of these systems into the future. The day will finish with a field trip to a bioretention basin. Please bring suitable attire (i.e. closed shoes and a hat) for the fieldtrip.

### Half Day Morning Workshop

9.00 am – 12.30 pm

#### ESTIMATION OF PROBABLE MAXIMUM FLOODS

**Dr Allan Goyen**

In recent years the need to estimate the effects of flood events caused by rainfalls in excess of the 100 year ARI has become more apparent and is now becoming mandatory. A number of situations where these are becoming necessary include dam spillway analysis, detention basin outlet design for larger structures, urban trunk drainage analysis, floodplain management and major bridges under AUSTRROADS guidelines. Many other major works desirably need to be checked for extreme floods, even if a smaller flood is used for design.

## STORMWATER 2010 - CONFERENCE PROGRAM

<b>Half Day Workshop</b>	<b>1.30 pm – 5.00 pm</b>
<b>INTEGRATED 1D/2D MODELLING IN AN URBAN ENVIRONMENT</b>	
<b>Bill Syme and Dr Ashis Dey</b>	
<p>The Workshop provides attendees with up-to-date information and techniques for solving and managing urban drainage design and analysis projects, along with reviews of various projects. The agenda will include discussions on runoff methods, the use of closed conduits and open channels, diversion structure and various storage methods. It will also include simulation of integrated 1D/2D modelling and the factors to take into consideration in a 2D modelling environment.</p>	
<b>Morning Tea</b>	<b>10.30am – 11.00am</b>
<b>Afternoon Tea</b>	<b>3.00pm – 3.30pm</b>
<b>Pre Conference Workshop Day Closes</b>	<b>5.00pm</b>

2010 Conference Sessions

Tuesday, 9<sup>th</sup> November

8.00 am	<b>DELEGATE REGISTRATION</b>			
9.00 am	<b>CONFERENCE OPENING</b> <b>Mr Steve Frost</b> National President, Stormwater Industry Association			
9.10 am	<b>PLATINUM SPONSOR WELCOME – HUMES WATER SOLUTIONS</b>			
9.20 am	<b>KEYNOTE PRESENTATION</b> <b>Senator Nick Xenophon</b> Independent Senator for South Australia			
9.55 am	<b>KEYNOTE PRESENTATION</b> <b>Mr Chris Davis</b> Commissioner, National Water Commission			
10.30 am	<b>Morning Tea</b>			
	<b>Managing Open Spaces</b>	<b>Protecting Urban Waterways</b>	<b>Institutional Capacity Building</b>	<b>Supporting better Urban Outcomes</b>
11.00 am	Refereed Paper UV or not UV, that is the question – what level of disinfection do we need for stormwater reuse, and why? <b>Ms Sophia Findlay</b> Ku-ring-gai Council	Non Refereed Paper The relationship between stormwater infrastructure and aquatic biodiversity in urban streams and implications for management <b>Dr Paul Hackney</b> Parramatta Council	Non Refereed Paper It'll come out in the Melbourne WaSSH <b>Mr Andrew Allan</b> Manningham City Council	Non Refereed Paper Stormwater Infrastructure Options to Achieve Multiple Water Cycle Outcomes <b>Mr Chris Tanner</b> Bligh Tanner
11.45 am	Non Refereed Paper Capturing the Storm: Getting stormwater out of the Gutter <b>Mr Martin Haege</b> Geolyse	Refereed Paper Investigating level spreader – vegetated filter strip systems for stormwater management <b>Dr William Hunt</b> North Carolina State University	Non Refereed Paper WSUD Capacity Building in City of Sydney Council <b>Mr Reid L Butler</b> BMT WBM <b>Dr Bhakti L Devi</b> City of Sydney	Non Refereed Paper Landscape Restoration of Stormwater Infrastructure <b>Mr Mark Blanche</b> AECOM

**STORMWATER 2010 - CONFERENCE PROGRAM**

12.30 pm	Lunch			
	Managing Open Spaces	Protecting Urban Waterways	Institutional Capacity Building	Supporting better Urban Outcomes
1.30 pm	<p>Non Refereed Paper</p> <p>Did we get what we paid for? Comparing design estimates to real volume usage for Stormwater harvesting</p> <p><b>Mr Jay Jonasson</b> Ku-ring-gai Council</p>	<p>Refereed Paper</p> <p>Dandenong Valley Wetlands – An integrated team delivering outstanding environmental outcomes.</p> <p><b>Dr Nicholas Some</b> Ecodynamics</p>	<p>Refereed Paper</p> <p>Busy backyarders: the motivations of citizens implementing alternative outdoor water management practices</p> <p><b>Ms Naomi Blackburn</b> Monash University</p>	<p>Non Refereed Paper</p> <p>Contemporary riverbank renewal. Restoring the banks of the Cooks River, Sydney</p> <p><b>Mr Daniel Cunningham</b> Sydney Water</p>
2.15 pm	<p>Refereed Paper</p> <p>Stormwater harvesting to meet flow management objectives</p> <p><b>Ms Alexa McAuley &amp; Mr Peter Gillam</b> Equatica</p>	<p>Refereed Paper</p> <p>Innovative deemed to comply solutions for South East Queensland – the simpler and faster way to design and assess stormwater quality aspects of small scale development applications</p> <p><b>Mr Alan Hoban</b> SEQ Healthy Waterways Partnership</p>	<p>Non Refereed Paper</p> <p>Regulating Stormwater MAR in South Australia</p> <p><b>Mr Peter Newland</b> EPA South Australia</p>	<p>Non Refereed Paper</p> <p>A Water Smart Plan for Doncaster Hill – Transforming a principal activity centre into a key component of a Water Sensitive City</p> <p><b>Mr Peter Coombes</b> Bonacci Water</p>
3.00 pm	Afternoon Tea			
	Managing Open Spaces	Protecting Urban Waterways	Institutional Capacity Building	Building Our Future
3.30 pm	<p>Non Refereed Paper</p> <p>Putting the Brakes on Water Miles at Stamford Park - Something to Aspire too!</p> <p><b>Mr Mark Liebman</b> STORM_Consulting</p> <p><b>Mr Rod Wiese</b> STORM_Consulting</p>	<p>Refereed Paper</p> <p>What does it cost to build a water quality treatment system? Findings from Council retrofits in Sydney</p> <p><b>Mr David Knights</b> Equatica</p>	<p>Refereed Paper</p> <p>Putting research into practice: applying an innovative planning/management process in the Cooks River Catchment</p> <p><b>Dr Rachel Wisniewski-Jakuba</b> Cooks River Sustainability Initiative</p>	<p>Refereed Paper</p> <p>What Impact could Climate Change have on Stormwater Harvesting Schemes</p> <p><b>Dr Brett Phillips,</b> Cardno</p>

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	Managing Open Spaces	Protecting Urban Waterways	Institutional Capacity Building	Building Our Future
4.15 pm	<p>Non Refereed Paper</p> <p>Critical Factors for the Success of Stormwater Harvesting Projects in the Greater Metropolitan Adelaide</p> <p><b>Mr Steven Gatti</b> Adelaide &amp; Mount Lofty Ranges Natural Resources Management Board</p>	<p>Refereed Paper</p> <p>Determining remediation templates for urban streams that have experienced heavy sediment loadings: Is the template pre- or post development?</p> <p><b>Kim Markwell</b> AECOM</p>	<p>Refereed Paper</p> <p>Real Time Water Sensitive Urban Design</p> <p><b>Anthony Collins</b> Parramatta City Council</p>	<p>Refereed Paper</p> <p>Community initiated stormwater management: Bushpockets, swales and council construction works</p> <p><b>Michael Easton</b> Bushpockets</p>
5.00 pm	Conference Close – Day 1			
6.30 pm	Cocktail Reception – Sydney Opera House Sponsored by XP Software			

## 2010 Conference Sessions

### Wednesday, 10<sup>th</sup> November

8.00 am	DELEGATE REGISTRATION
9.00 am	WELCOME TO DELEGATES
9.10 am	<p><b>KEYNOTE PRESENTATION</b></p> <p><b>Professor Tony Wong</b> Director, Centre for Water Sensitive Cities, Monash University</p>
9.50 am	<p><b>KEYNOTE PRESENTATION</b></p> <p><b>Professor Peter Newman</b> Sustainability Policy (CUSP) Institute, Curtin University</p>
10.30 am	Morning Tea
11.00 am	GPT FORUM AND PANEL SESSION

**STORMWATER 2010 - CONFERENCE PROGRAM**

	Managing Open Spaces	Protecting Urban Waterways	Building our Future	Supporting Better Urban Outcomes
<b>12.15 pm</b>	<p>Non Refereed Paper</p> <p>Can we move beyond the credit crunch? WSUD in open space</p> <p><b>Mr Shaun Leinster</b> Designflow</p> <p><b>Mr Chris Tanner</b> Bligh Tanner</p>	<p>Non Refereed Paper</p> <p>Tanks-a-million: community engagement to increase local action</p> <p><b>Ms Sophia Findlay</b> Ku-ring-gai Council</p>	<p>Refereed Paper</p> <p>Waterways Alliance – A case study of what can be learnt from the application of the Alliance model to a program of environmental works</p> <p><b>Dr Nicholas Some</b> EcoDynamics</p>	<p>Non Refereed Paper</p> <p>Stormwater harvesting for irrigation of remnant native vegetation in Napier Park, Moonee Valley, Melbourne</p> <p><b>Mr Stuart Farrant</b> AECOM</p>
<b>1.00 pm</b>	<b>Lunch</b>			
	Managing Open Spaces	Protecting Urban Waterways	Building our Future	Supporting Better Urban Outcomes
<b>2.00 pm</b>	<p>Non Refereed Paper</p> <p>Stormwater reuse and the effects of climate change – Should we be concerned?</p> <p><b>Ms Tamara Slater,</b> Parsons Brinckerhoff</p> <p><b>Nathan Clements,</b> Parsons Brinckerhoff</p>	<p>Refereed Paper</p> <p>Bioretention Design: One Size Doesn't Fit All</p> <p><b>Dr William Hunt,</b> North Carolina State University</p>	<p>Non Refereed Paper</p> <p>Development of the Botany Bay Decision Support System</p> <p><b>Dr Joel Stewart</b> BMT WBM</p>	<p>Non Refereed Paper</p> <p>The Business Case for Water Sensitive Urban Design: An Assessment of the Costs and Benefits</p> <p><b>Ms Sarah Jones</b> SEQ Healthy Waterways Partnership</p>
<b>2.45 pm</b>	<p>Non Refereed Paper</p> <p>Just what we need! A Toolkit for Stormwater Harvesting</p> <p><b>Mr Ryan Vandervalk</b> Storm Consulting</p>	<p>Non Refereed Paper</p> <p>Auditing and Life Cycle Costing of Gross Pollutant Traps</p> <p><b>Mr Dean Dehghan-Khalaj</b> Blacktown City Council</p> <p><b>Murray Powell</b> Optimal Stormwater</p>	<p>Non Refereed Paper</p> <p>Constructed Wetlands: Tools for adaptation under climate change</p> <p><b>Ms Carolina Casaril</b> University of Queensland</p>	<p>Non Refereed Paper</p> <p>Optimisation of Existing Retarding Basins for Stormwater Treatment and Reuse</p> <p><b>Mr Justin Lewis</b> South East Water</p>
<b>3.30 pm</b>	<b>Afternoon Tea</b>			

## STORMWATER 2010 - CONFERENCE PROGRAM

	Managing Open Spaces	Protecting Urban Waterways	Building our Future	Supporting Better Urban Outcomes
<b>4.00 pm</b>	<p>Non Refereed Paper</p> <p>Is water quality really the answer to stream protection? Introducing sensible policy</p> <p>Mr Rod Wiese, Storm Consulting and Ms Diana Kureen, Central West CMA</p>	<p><i>Refereed Paper</i></p> <p>Impact on runoff quality by the drainage system – what you put in is not necessarily what you get out</p> <p>Mr Peter Davies, Kuring-gai Council</p>	<p><i>Refereed Paper</i></p> <p>Challenges of urban stormwater reuse via a low permeability fractured rock aquifer in Victoria</p> <p>Ms Kerry Levett, CSIRO Land and Water</p>	<p><i>Refereed Paper</i></p> <p>Assessing the Risks of Recycling Urban Stormwater for Potable Supply via an Aquifer</p> <p><b>Dr Joanne Vanderzalm</b>, CSIRO Land and Water</p>
<b>4.45 pm</b>	<b>Conference Wrap up Day 2</b>			
<b>7.00 pm</b>	<b>Conference Dinner - Dockside</b>			
	Sponsored by STORM_Consulting			

## 2010 Conference Sessions

### Thursday, 11<sup>th</sup> November

<b>8.00 am</b>	<b>DELEGATE REGISTRATION</b>
<b>9.00 am</b>	<b>WELCOME TO DELEGATES</b>
<b>9.05 am</b>	<p><b>KEYNOTE PRESENTATION</b></p> <p><b>Tan Nguan Sen</b> Director, Public Utilities Board, Singapore</p>
<b>9.40 am</b>	<p><b>PRESENTATION OF 2010 SIA NATIONAL AWARDS FOR EXCELLENCE WINNERS</b></p> <p>This session will feature 15 minute presentations by the winners of the SIA National Awards for Excellence in the following categories:</p> <ul style="list-style-type: none"> <li>• Excellence in Strategic or Master Planning</li> <li>• Excellence in Infrastructure</li> <li>• Excellence in Asset Management</li> <li>• Excellence in Research, Innovation, Policy and Education.</li> </ul>

**STORMWATER 2010 - CONFERENCE PROGRAM**

10.40 am		Morning Tea		
	The Quantity Domain of WSUD	Protecting Urban Waterways	Building our Future	Protecting Urban Waterways (2)
11.10 am	<p>Refereed Paper</p> <p>The quantity domain of WSUD: flooding and environmental flows</p> <p><b>Professor John Argue,</b> University of South Australia</p>	<p>Non Refereed Paper</p> <p>Monitoring of a non-conforming as constructed wetland – lessons, findings and future learning's</p> <p><b>Mr Chris Beardshaw,</b> Water Technology</p>	<p>Refereed Paper</p> <p>Stormwater Treatment Devices and Related Monitoring Programs applied on Main Roads in Queensland, Australia</p> <p><b>Dr Joel Stewart</b> BMT WBT</p>	<p>Refereed Paper</p> <p>Dry Weather Stormwater Monitoring, to Identify Sewage Contributions to Stormwater and Urban Waterways, to Protect Public Health and the Environment, in Manly Council, Sydney</p> <p><b>Michael Galloway</b> Manly Council</p>
11.55 am	<p>Refereed Paper</p> <p>New generation stormwater management objectives for stream protection: implementation at multiple scales to restore a small stream.</p> <p><b>Associate Professor Christopher Walsh,</b> University of Melbourne</p>	<p>Refereed Paper</p> <p>A Risk based approach to Water Sensitive Highway Design</p> <p><b>Mr Bill Johnson</b> Parsons Brinckerhoff</p>	<p>Refereed Paper</p> <p>Development of Appropriate Criteria for the Safety and Stability of Persons and Vehicles in Stormwater Design</p> <p><b>Dr Thomas Shand,</b> University of NSW</p>	<p>Refereed Paper</p> <p>Stormwater Management Plans in South Australia Their Evolution and their Function</p> <p><b>Mr Christopher Wright,</b> Adelaide and Mount Lofty Ranges Natural Resources Management Board</p>
12.40 pm		Lunch		
	Institutional Capacity Building	Protecting Urban Waterways	Building our Future	Protecting Urban Waterways (2)
1.40 pm	<p>Non Refereed Paper</p> <p>Advancing Water Sensitive Urban Design in the Lower Georges River Catchment</p> <p><b>Mr Col Freeman</b> Rockdale Council</p>	<p>Non Refereed Paper</p> <p>Integrated Stormwater And Groundwater Management In Perth, Western Australia</p> <p><b>Mr Bill Till</b> WA Department of Water</p>	<p>Non Refereed Paper</p> <p>WSUD infrastructure: an asset to be managed</p> <p>Mr Shaun Leinster Designflow</p> <p><b>Ms Sarah Jones</b> SEQ Healthy Waterways Partnership</p>	<p>Refereed Paper</p> <p>Biofiltration design – a case study of biofiltration systems in residential areas using different filter media</p> <p><b>Mr Jay Jonasson</b> Ku-ring-gai Council</p>

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<b>2.25 pm</b>	<p><b>Non Refereed Paper</b></p> <p>Moving towards sustainable stormwater management in the new growth areas of Melbourne</p> <p><b>Mr Dennis Corbett</b> Melbourne Water</p>	<p><b>Refereed Paper</b></p> <p>Improved media and plant species for long term sustainability of nutrient retention in bioretention systems.</p> <p><b>Associate Professor Margaret Greenway</b>, Griffith University</p>	<p><b>Refereed Paper</b></p> <p>The role of the urban land development organisation in mainstreaming water sensitive urban design</p> <p><b>Ms Katie Brookes</b>, Monash University</p>	<p><b>Refereed Paper</b></p> <p>Environmental Technology Verification Testing for Stormwater Quality Improvement Measures in Australia</p> <p><b>Mr Ben Modra</b> NSW Public Works</p>
<b>3.10 pm</b>	<b>Afternoon Tea</b>			
	<b>Supporting Better Urban Outcomes</b>	<b>Protecting Urban Waterways</b>	<b>Building our Future</b>	<b>Protecting Urban Waterways (2)</b>
<b>3.40 pm</b>	<p><b>Refereed Paper</b></p> <p>An ecosystem health approach to assessing stormwater impacts on constructed urban lakes</p> <p><b>Mr Christopher Walker</b> University of the Sunshine Coast</p>	<p><b>Refereed Paper</b></p> <p>Raingardens or rainwater tanks – community's willingness to install and effectiveness in achieving regional change</p> <p><b>Mr Rob Catchlove</b>, Alluvium</p>	<p><b>Refereed Paper</b></p> <p>Stormwater Planning in Canberra, Australia</p> <p><b>Dr Brett Phillips</b>, Cardno</p> <p><b>Mr Patrick Paynter</b></p>	<p><b>Refereed Paper</b></p> <p>Advanced Bioretention System Array: The Science Museum of Virginia, USA</p> <p><b>Mr William Lucas</b> Griffith University</p>
<b>4.25 pm</b>	Closing Plenary Session			
<b>5.00 pm</b>	<b>Thanks and Conference Close</b>			