Program: Wednesday 6th May 2009

Time				
0800–0830	Registration			
	Argyle Room			
0830–0915	**CONFERENCE OPENING:** Hon G Jacobs MLA and Sue Murphy, CEO			
0915–1000	**KEYNOTE ADDRESS 1: Dr Noel Nannup** The Nannup Family Trust *The Aboriginal perspective on Water and Landscape*			
1000–1045	**KEYNOTE ADDRESS 2: Professor Ken Freidman** Professor of Design, Swinburne University *The Role of Design in Dealing with the Challenges of Climate Change and Sustainability*			
1045–1115	MORNING TEA			
	Argyle Room	**Fremantle Room**	**Stirling B Room**	**Stirling A Room**
	LENS 1 **Water and Urban Planning**	**LENS 2** **Culture, Attitudes and Values**	**LENS 3** **Science, Engineering and Systems**	**LENS 4** **Water and the Urban Landscape**
1115–1130	**1A** Prof Tony Wong EDAW *Incentives to drive uptake of WSUD across Australia*	**2A** Ms Colleen Murphy City of Wanneroo *Barriers & Catalysts in Wanneroo (or, how we learned to stop worrying and love the WSUD)*	**3A** Mr Michael Donn CSIRO Land & Water *Use of high resolution water quality monitoring for impact assessment of urban development*	**4A** Ms Shelley Shepherd Essential Environmental Services *Are we delivering better urban water management in WA?*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1135–1150	**1B** Dr Michael Barry BMT WBM *The efficiency of local water sources subject to climate change to supplement regional water supply for Perth*	**2B** Mr Peter Morison Monash University, *Where is the 'P' in WSUD? Understanding the nature of publics and local policy commitment.*	**3B** Mr Ashley Roberts GHD Pty Ltd *Integrated WSUD Project Delivery*	**4B** Dr Peter Breen EDAW Australia *Multi-Purpose Drainage Systems: A WA Case Study*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1155–1210	**1C** Ms Meredith Blais Water Corporation *Towards climate resilience*	**2C** Ms Peta Dzidic CSIRO *Keeping up with the Joneses: A peek over the fence at neighbourhood social norms as they influence water conservation and urban design*	**3C** Mr Bill Till Department of Water *Quantity is the Key to Stormwater Quality Management*	**4C** Mr Aram Manjikian Parsons Brinckerhoff *Stormwater Treatment or Environmental Flows–reviving a natural billabong*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1215–1230	**1D** Miss Lydia Mattner Goulburn–Murray Water *A Regional Perspective on the application of WSUD*	**2D** Mr Alan Hoban Water By Design–South East Queensland Healthy Waterways Partnership *Interpretive signage for water sensitive urban design projects–Which way forward?*	**3D** Mr Rod Burton Water Corporation *Managing Pressure to Save Water in Perth*	**4D** Mr Mike Mouritz Hassell *Twenty Years of WSUD: some personal reflections with examples*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1235–1250	**1E** Mr Nathan Clements Parsons Brinckerhoff *1.5yr ARI Flood Attenuation–The Forgotten Best Practice Objective*	**2E** Mr Shaun Leinster DesignFlow *The Credit Crunch–Water Sensitive Urban Design in Parks*	**3E** Prof John Argue University of South Australia *Setting criteria for environmental and channel-forming flows for waterways in urbanising catchments*	**4E** Prof Tony Wong EDAW *Design, Construction and Monitoring Singapore's First Bioretention Systems*
	Questions	Questions	Questions	Questions
1255–1345	LUNCH			

	Argyle Room	Fremantle Room	Stirling B Room	Stirling A Room
1345–1430	**KEYNOTE ADDRESS 3: Professor Richard Weller** Professor of Landscape Architecture, University of Western Australia *Planning and design for the 'Boom Town'*			
1430–1515	**KEYNOTE ADDRESS 4: Assoc Prof Rebekah Brown** Associate Professor, Monash University and Program Leader of the National Urban Water Governance Program *Urban Water Reform Across Australia: The Influence of Multiple Communities of Practice*			
1515–1545	AFTERNOON TEA			
	Argyle Room **LENS 5** **Water and Urban Planning**	**Fremantle Room** **LENS 6** **Governance and Policy Dimensions**	**Stirling B Room** **LENS 7** **Science, Engineering and Systems**	**Stirling A Room** **LENS 8** **Assessment Techniques for WSUD**
1545–1600	5A Ms Susan van de Meene National Urban Water Governance Program, Monash University *Characteristics of a Future Sustainable Urban Water Management Regime: Insights from Two Australian Cities*	6A Mr John Roberts Department of Water *The role of water law reform in implementing water sensitive urban design*	7A Mr Andrew Cook EDAW *Adapting best practice design of bioretention and wetlands for application in the Dry Tropics*	8A Ms Katie Brookes EDAW *The adequacy of Stream Erosion Index as an alternative indicator of geomorphic stability in urban waterways*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1605–1620	5B Ms Fiona Coe WorleyParsons *The New Rouse Hill WSUD Case Study*	6B Dr Megan Farrelly National Urban Water Governance Program, Monash University *Can demonstration projects act as a mechanism for promoting a transition?*	7B Miss Katia Bratieres Monash University, Melbourne *The advantages and disadvantages of a sand-based biofilter medium; Results of a new laboratory trial*	8B Mr Ngoc Cau Le The University of Tokyo *Urban water system in Hanoi: a baseline analysis and local conditions influencing the sustainability of the system*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1625–1640	5C Mr Paul Mitchell Whittlesea City Council *Utilizing Water Sensitive Urban Design in the Development of Sustainable Urban Communities*	6C Mr Andrew Bruce City of Armadale *Your Dream is My Nightmare (or how to make the future look like the present)*	7C Ms Maria Bergman Technical University of Denmark *Integrated model of soakaways on allotment scale*	8C Ms Peta Kelsey Department of Water *Hydrological and Nutrient Modelling in the Swan Canning Catchments–current status and future projections*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1645–1700	5D Assoc Prof Sveinn Thorolfsson NTNU (Norwegian University of Science and Technology) *Sustainable stormwater management at Urridavatn in Gardabaer in Iceland*	6D Mr Peter Adkins Swan River Trust *Wharf Street Wetlands and Civic Parklands: A solution to multiple objectives*	7D Dr Jim Davies JDA Consultant Hydrologists *Nutrient Management using Imported Fill in Areas of High Water Table*	8D Mr Nathaniel Parker Natural Resources and Water *Effectiveness of WSUD in the real world*
	Questions	Questions	Questions	Questions
1730–1800	Refreshments and Registration			
1800–1900	**Argyle Room** PUBLIC FORUM: ***Making Perth more climate resilient—towards a water sensitive city*** Developing a vision of Perth as a 'water sensitive city'—lessons from Europe. **Sponsored by Water Corporation** Speakers: Louisa Kinnear, Strategy & Policy Analyst, Water Forever James Tay, Graduate Engineer, Water Efficiency Branch			

Program: Thursday 7th May 2009

Time				
0830–0900	Registration			
	Argyle Room			
0900 – 0945	**KEYNOTE ADDRESS 5: Herbert Dreiseitl** Atelier Dreiseitl, Germany *Urban Design and Water*			
	Argyle Room	**Fremantle Room**	**Stirling B Room**	**Stirling A Room**
	LENS 9 **Assessment Techniques for WSUD**	LENS 10 **Governance and Policy Dimensions**	LENS 11 **Wetlands**	LENS 12 **Science, Engineering and Systems**
0945 – 1000	9A Ms Susan van de Meene National Urban Water Governance Program, Monash University *Investigating Sustainable Urban Water Management Regimes: What Tools are Available to Help?*	10A Mr John Ruprecht Department of Water *Urban Water Futures*	11A Ms Karen Lane ENV Australia *Reaching a Technically-based decision from valid opposing views–A case study of a recreational urban wetland*	12A Mr Courtney Henderson EDAW *Simplifying and Reducing the maintenance of WSUD elements using bush reconstruction techniques*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1005 – 1020	9B Dr Olga Barron CSIRO *Building catchment scale decision support tools to assess the effect of urbanisation on catchment water resources and water quality*	10B Ms Annette Bos National Urban Water Governance Program, Monash University *Strategic niche management; will it advance the urban water sector in Australia?*	11B Miss Meagan Frame Parsons Brinckerhoff *Techniques for Inflow Control to Constructed Wetlands*	12B Ms Ana Deletic Monash University *Porous pavements: Evaluation of clogging in two accelerated laboratory studies in Melbourne*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1025 – 1040	9C Prof Peter Coombes Bonacci Water *The spatial variation of climate, household water use and the performance of rainwater tanks in Greater Melbourne*	10C Prof Tony Wong EDAW *Water Sensitive Cities: Applying the Framework to Melbourne*	11C Mr Wayne Cooper GHD *Water Sensitive Urban Design in a Coastal Wetland Environment – North Sapphire Beach Development – A Case Study*	12C Dr Robert Humphries Water Corporation *From Waste to Water Quality – Opportunities for achieving sustainable urban development on the sandy soils of the Swan Coastal Plain, Western Australia*
	Questions	Questions	Questions	Questions
1045 – 1115	MORNING TEA			
	Argyle Room	**Fremantle Room**	**Stirling B Room**	**Stirling A Room**
	LENS 13 **Assessment Techniques for WSUD**	LENS 14 **Governance and Policy Dimensions**	LENS 15 **WSUD Case Studies**	LENS 16 **Water Quality**
1115 – 1130	13A Dr Brett Phillips Cardno Willing (NSW) Pty Ltd *Assessing the Performance of North Weston Pond, ACT*	14A Mrs Mehlika Kayaalp Water Corporation *Challenges Associated with Operating a Dual Reticulation System within the Western Australian Context*	15A Ilce Mladenovski Dalton Consulting Engineers *The effectiveness of the University Hill constructed wetland in treating stormwater*	16A Mrs Radin Maya Saphira Environmental Technology Centre *Nutrient Leaching from Greywater Irrigation: Case Studies*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1135 – 1150	13B Mr Geoffrey Cocks Coffey Geotechnics Pty Ltd *A Comparison of Storage Volume Requirements for Soakage Basins using PCSUMP and the Stormwater Management Manual for Western Australia*	14B Mr Craig Wansborough Shire of Serpentine Jarrahdale *Our Journey – Water Sensitive Urban Design the SJ Way*	15B Ms Emma James EDAW *WSUD at Sydney's Green Square Town Centre*	16B Mr Paul Lock South East Regional Centre for Urban Landcare *Being Fertilise Wise*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over

1155 – 1210	13C Mr Michael Canci Water Corporation *The Effect of Spitial Resolution on Estimates of Groundwater Recharge for Gnangara*	14C Mr Leon Harvey Storm Consulting *Capability in Integrated Urban Water Management: When Capacity Needs Are Met*	15C Dr Brett Phillips Cardno Willing (NSW) Pty Ltd *Is Restoring Environmental Flows in the Lower Molonglo River Achievable?*	16C Dr Margaret Greenway Griffith University *A Comparative Study of Nutrient Removal in Vegetated and Non-Vegetated Vertical Flow Mesocosms*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1215 – 1230	13D Mr Paul Dubowski Water By Design – South East Queensland Healthy Waterways Partnership *Creating New Pathways for WSUD Implementation – Lessons from South East Queensland*	14D Miss Sarah Walker Water By Design – South East Queensland Healthy Waterways Partnership *Training: Its effectiveness in assisting the transition to a Water Sensitive City*	15D Mr Rhys Thomson Cardno Lawson Treloar Pty Ltd *Managing Water Quality at Gardens by the Bay, Singapore*	16D Mrs Mirela Magyar Institute for Sustainable Water Resources *The Effect of Rainwater Tank Design on Outlet Water Quality*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1235 – 1250	13E Dr David McCarthy Monash University *Effective monitoring and assessment of contaminants impacting the mid to lower Yarra catchments – Temporal Scale Assessment*	14E Mr Martin Anda Murdoch University *An Assessment of Scheme Water Savings achieved through Greywater Reuse on a Household Scale in Perth, Western Australia*	15E Ms Margaret Dunlop ENV Australia *Applying Better Urban Water Management Policy to Non-standard Developments*	16E Ms Sri Adiyanti JDA Consultant Hydrologists *Water Quality Management of Constructed Lakes in Perth Urban Environment*
	Questions	Questions	Questions	Questions
1255 – 1400	LUNCH			
1330 – 1440	Poster Presentation			
	Argyle Room			
1400 – 1430	**PLENARY ADDRESS:** **Professor Tony Wong**, EDAW *Envisioning Future Water Sensitive Cities*			
1430 – 1515	**KEYNOTE ADDRESS 6:** **Nguan Sen Tan,** Director of Catchment and Waterways Department in PUB, Singapore and **Professor Tony Wong**, EDAW *ABC Waters Programme—Towards Sustainable Water Management in Singapore*			
1515 – 1545	AFTERNOON TEA			
	Argyle Room	**Fremantle Room**	**Stirling B Room**	**Stirling A Room**
	LENS 17 **Water and Urban Planning**	LENS 18 **Culture, Attitudes and Values**	LENS 19 **Science, Engineering and Systems**	LENS 20 **Water and the Urban Landscape**
1545 – 1600	17A Ms Kelly Hudson Department for Planning and Infrastructure *Like oil and water: trying to mix water into land planning*	18A Ms Caitlin Davis National Urban Water Governance Program, Monash University *Practitioner reflections on learning and demonstration projects*	19A Ms Ying Yan Qu SA Water Centre for Water Management and Reuse, University of South Australia *Sizing rainwater tanks for use with siphonic drainage systems*	20A Mr Mark Cavaney Connell Wagner *Retro-fitting existing drainage systems to improve runoff quality in the Perth Metropolitan Area*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1605 – 1620	17B Mr Gary Walsh EDAW *A Stormwater Code of Practice for Industrial Site Development and Management*	18B Mr Peter Morison Sydney Metropolitan Catchment Management Authority *Engaging with the Community in Water Quality Objective Setting and WSUD Planning*	19B Prof Robert Andoh Hydro International *Integrate Stormwater Management in Urban Environments – The Role of Vortex Flow Controls*	20B Mr John Ruprecht Department of Water *Managing groundwater levels to protect infrastructure and assets in urban developments*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1625 – 1640	17C Prof Peter Coombes Bonacci Water *Integrated water cycle management at Armstrong Creek – towards targets for sustainable development*	18C Ms Melissa Green CSIRO *Sustainability? The role of aesthetics in community acceptance of a non-potable water supply system*	19C Mr Peter Davies Ku-ring-gai Council, *Effects of Concrete and PVC Pipes on Water Chemistry*	20C Mr Tony Weber BMT WBM Pty Ltd *The Importance of Retrofitting WSUD in Restoring Urbanised Catchments*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over

Program: Thursday 7th May 2009 (continued)

	Argyle Room	Fremantle Room	Stirling B Room	Stirling A Room
	LENS 17 (cont.) **Water and Urban Planning**	LENS 18 (cont.) **Culture, Attitudes and Values**	LENS 19 (cont.) **Science, Engineering and Systems**	LENS 20 (cont.) **Water and the Urban Landscape**
1645 – 1700	17D Mr Stuart Devenish Armadale Redevelopment Authority *WSUD – A Tool for Viable Urban Development*	18D Mr Andre Taylor Monash University *How to Grow Leaders: The Design, Delivery and Evaluation of a Customised Leadership Development Program*	19D Ms Anne Gannon The University of Western Australia *Investigation into Gross Pollutant Traps Commercially available in Australia*	20D Mr Daniel Fischer RMIT University *Water Sensitive Urban Design Strategy for Industrial Estates*
	Questions	Questions	Questions	Questions
1715 – 1815	**Fremantle Room**			
	FORUM: ***Climate Change Adaption Research for Settlements and Infrastructure*** Facilitator: Mr Ron Cox			
	Argyle Room			
1900	**PRE-DINNER DRINKS**			
1930	**CONFERENCE DINNER** Sponsored by GHD			

Program: Friday 8th May 2009

Time				
0830–0900	Registration			
	Argyle Room			
0900–0945	**KEYNOTE ADDRESS 7:** Professor Stuart White Institute for Sustainable Futures, University of Technology, Sydney *Fourth generation urban water futures: the role of Water Sensitive Urban Design*			
	Argyle Room	**Fremantle Room**	**Stirling B Room**	**Stirling A Room**
	LENS 21 **Assessment Techniques for WSUD**	LENS 22 **WSUD Case Studies**	LENS 23 **Stormwater Harvesting**	LENS 24 **Water and Urban Planning**
0945–1000	21A Mr Marc Noyce Cardno Grogan Richards (Vic) Pty Ltd *Sustainable Sporting Facility Reviews for Local Government, Victoria*	22A Mr Khairul Alam Gold Coast City Council *Implementation of WSUD in Gold Coast – Case Studies*	23A Mr Pater Poelsma Monash University, Melbourne *Development of a new stormwater collection/ treatment unit*	24A Mr Wayne Prangnell Shire of Augusta–Margaret River *Village Scale Integrated Water Systems*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1005–1020	21B Mr Mark Liebman The Sustainability Workshop Ltd *Urban Stormwater Management Targets – Linking Targets with Ecological Impacts*	22B Mr Paul Nichols Cardno *Haywards Bay Wetlands*	23B Assoc Prof Sveinn Thorolfsson NTNU (Norwegian University of Science and Technology) *Sustainable stormwater management at Fornebu in Baerum, Norway—Investigation on the stormwater system*	24B Ms Vanessa Moscovis Water Corporation *Development and Design of the Groundwater Replenishment Trial to Demonstrate Indirect Potable Reuse in WA*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1025–1040	21C Mr Tom Micevski University of Newcastle/eWater CRC *The value of improved predictions of household outdoor water use*	22C Ms Marion Cahill Swan River Trust *A Water Quality Improvement Plan for the Swan and Canning Rivers*	23C Dr Grace Mitchell Monash University *Performance Assessment of Three Melbourne Stormwater Harvesting Systems*	24C Mr Rodney Safstrom Gnangara Sustainability Strategy Taskforce *Climate change will drive water sensitive urban design in Perth*
	Questions	Questions	Questions	Questions
1045–1115	MORNING TEA			
	LENS 25 **Assessment Techniques for WSUD**	LENS 26 **Raingardens, Green Roofs and Living Walls**	LENS 27 **Stormwater Harvesting**	LENS 28 **Science, Engineering and Systems**
1115–1130	25A Mr Anthony Barr CSIRO Land & Water *The effect of urbanisation on water balance in shallow watertable areas in the Southern River catchment*	26A Mr David Howard GHD Pty Ltd *Transformation of an Existing Garden Feature into a Functioning Raingarden*	27A Mr Jay Jonasson Ku-ring-gai Council, NSW *Stormwater management – Runoff generation in the Sydney region and impact on stormwater harvesting design*	28A Ms Belinda Hatt Facility for Advanced Water Biofiltration *Towards widespread implementation of biofiltration for improved stormwater management: an overview of the new Facility for Advancing Water Biofiltration's Adoption Guidelines*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1135–1150	25B Mr Daniel Niven Cardno Lawson Treloar *3D Calibration, Validation and Future Prediction of Tidal Lake Water Quality Behaviour*	26B Mr Ralf Pfleiderer City of Melbourne *Tree Pit Raingardens in the City of Melbourne*	27B Ms Stephanie Ashbolt CSIRO Land & Water *Development of least-cost stormwater harvesting portfolio for Canberra*	28B Dr Kapil Gupta Indian Institute of Technology, Bombay *Role of WSUD in reducing urban flood disasters under extreme monsoon rainfall conditions*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over

	Argyle Room	Fremantle Room	Stirling B Room	Stirling A Room
	LENS 25 (cont.) **Assessment Techniques for WSUD**	**LENS 26 (cont.)** **Raingardens, Green Roofs and Living Walls**	**LENS 27 (cont.)** **Stormwater Harvesting**	**LENS 28 (cont.)** **Science, Engineering and Systems**
1155–1210	**25C** Dr Jim Davies JDA Consultant Hydrologists *Urban Development in Areas of High Water Table: Unscrambling the Acronyms (AAMGL, CGL, MGL, PGL, etc)*	**26C** Mr Graeme Hopkins Planning SA *Green Infrastructure: Re-interpreting natural systems (WSUD) from ground to green walls and roofs within the urban form*	**27C** Dr David Horn GHD Pty Ltd *The use of laterite to improve water quality in open drains*	
	Questions & change over	Questions & change over	Questions & change over	
1215–1230	**25D** Ms Ana Deletic Monash University *Parameter sensitivity analysis in stormwater flow and quality models*	**26D** Dr Grace Mitchell Monash University *Quantifying Stormwater Benefits of Extensive Vegetated Roofs in Melbourne*	**27D** Mr Keith Johnson South East Water Limited *A New Direction for Stormwater Harvesting for Urban Residential Areas*	**28D** Ms Gabi Parke EDAW *Criteria for determining the suitability of plants for growth in bioretention systems*
	Questions & change over	Questions & change over	Questions & change over	Questions & change over
1235–1250		**26E** Ms Yael Stav Queensland University of Technology *Living Walls and their role in the urban watercycle*	**27E** Mr Baden Myers University of South Australia *An Experimental Study of the Long-Term Water Quality Impacts of Gravel Media on Water in Storage Underlying Permeable Pavements*	**28E** Assoc Prof Margaret Greenway Griffith University *Improved Media for Long-Term Phosphorus Retention in Bioretention Systems*
	Questions	Questions	Questions	Questions
1255–1345	LUNCH			
	LENS 29 **Water and the Urban Landscape**		**LENS 30** **Stormwater Harvesting**	**LENS 31** **WSUD Case Studies**
1345–1400	**29A** Ms Ichsani Wheeler EDAW *Integration of a chain of ponds fluvial system into future urban development*		**31A** Mr Ralf Pfleiderer City of Melbourne *Royal Park Stormwater Wetland and Reuse Scheme*	**31A** Ms Emma Maratea Cardno *Working together to sustain the Parramatta River*
	Questions & change over		Questions & change over	Questions
1405–1420	**29B** Ms Bronwyn Woodward ENV Australia *What do 46 constructed lakes in WA have in common?*		**31B** Mr Kim Markwell EDAW *Riparian Zone Ecosystem Services—the new driver for stormwater retrofit and waterway enhancement*	
	Questions		Questions	
	Argyle Room			
1430–1510	**PLENARY ADDRESS:** **David Hedgcock**, Head of School of Built Environment, Curtin University and Mike Mouritz, Head of Sustainable Urbanism, Hassell *Water Sensitive Urban Design: From Humble Beginnings*			
1510–1530	**CLOSING PANEL SESSION**			
1530–1600	**CLOSING DRINKS**			