

Monday 3 December

1000-1800	Registration opens	Level 1 Foyer
1100-1730	Pre-Symposium workshops	
1100-1200	Workshop: <i>What are the eco-hydrological outcomes of the basin plan?</i>	Ballroom 1
	Workshop: <i>Application of R in hydrology and water resources</i>	Ballroom 2
	Workshop: <i>Application of Australian rainfall & runoff (ARR2016) in urban areas</i>	Ballroom 3
	Workshop: <i>Integrated water management in Victoria</i>	Stradbroke
	Workshop: <i>AWRA data and modelling system training</i>	Delacombe
1200-1300	Lunch – Exhibition area - Level 1 Foyer	
1300-1430	Workshops cont.	
1430-1500	Afternoon tea – Exhibition area - Level 1 Foyer	
1500-1730	Workshops cont.	
1730-1900	Exhibition opens	Level 1 Foyer
1730-1900	Welcome Reception	Level 1 Foyer

Tuesday 4 December

0800-1730	Registration opens		Level 1 Foyer		
0800-1800	Exhibition opens		Level 1 Foyer		
Chair	Phillip Jordan				
0830-0840	Welcome to Country		Ballroom 2 & 3		
0840-0900	Official opening		Ballroom 2 & 3		
0900-0940	Opening Presentation John Thwaites		Ballroom 2 & 3		
0940-1030	Keynote Presentation <i>The challenge of incorporating cultural values and perspectives of First Peoples' (Aboriginal People) into water planning and environmental water management</i> Brad Moggridge		Ballroom 2 & 3		
1030-1035	Sponsor Address <i>Welcome Reception Sponsor Address, Melbourne Water</i> Bruce Rhodes		Ballroom 2 & 3		
1035-1055	Morning tea – Exhibition area - Level 1 Foyer				
1055-1215	Concurrent sessions				
	Concurrent 1A	Concurrent 1B	Concurrent 1C	Concurrent 1D	Concurrent 1E
Theme	Flood risk modelling and management	Indigenous water values	Informing policy and operational decisions	Informing policy and operational decisions	Healthy waterways
Room	Ballroom 2 & 3	Ballroom 1	Stradbroke	Huntingfield	Delacombe
Chair	Melanie Collett	Jason King	Paul Feikema	Andrew Herron	Rachel Brown
1055-1115	Flood risk assessment of temporary works for infrastructure projects Clayton Johnston	More than 'Indigenous values': Nyikina-Mangala water governance Kat Taylor & Anne Poelina	Investigation of the use of Australian water availability project climate data for the development of eWater source models for water planning in NSW Nanda Nandakumar	The value of water in storage: implications for operational policies Andrew Western	Hydrological modelling: a key decision-making tool in implementing low flow release programs Kumar Savadamuthu
1115-1135	Bruce highway link flood study Jennifer Eden	Protecting the Yarra River Ann Kirwan	Connecting the dots between data/model complexity, model performance, and model internal dynamics Sina Khatami	Bottom up systems analysis of urban water resources and market mechanisms for pricing water and environmental management Peter Coombes	Detection of changes in waterway health due to flow Terry Chan
1135-1155	Large Basins or Small Dams? - Reducing Flood Risk to Communities Through Design and Construction David Cox	Water for Country – Victoria's approach in recognising and managing for Aboriginal water values Cathy Lewis & Jason King	Construction of a rainfall-runoff model in Liberia, Africa Katherine Szabo	Effects of heightened price awareness on urban water consumption Nicholas Lucas	Comparing river-network topology delivering provisioning and regulating ecosystem services Seema Karki
1155-1215	Investigations on Irrigation Diversions using eWater Source Models and Satellite Imagery in Regulated Richmond River Gurmeet Singh	Integrating groundwater replenishment into catchment-scale water management solutions (New Zealand) Brett Sinclair	Calibration of Sacramento model for a catchment with unknown abstraction Ashok Raut	Tapping the grid: maximising the potential of the water grid 2018 Meg Pillai	Securing low flows - a trial project to install low flow devices on existing farm dams Helen Braithwaite
1215-1305	Lunch – Exhibition area - Level 1 Foyer				

Tuesday 4 December (cont.)					
Chair	<i>Christoph Rudiger</i>				
1305-1355	Keynote Presentation <i>Modelling platform for water sensitive urban design implementation</i> Ana Deletic				Ballroom 2 & 3
1355-1515	Concurrent sessions				
	Concurrent 2A	Concurrent 2B	Concurrent 2C	Concurrent 2D	Concurrent 2E
Theme	Flood risk modelling and management	Flood risk modelling and management	Healthy waterways	Informing policy and operational decisions	Healthy waterways
Room	Ballroom 2 & 3	Ballroom 1	Stradbroke	Huntingfield	Delacombe
Chair	<i>Andrew Barton</i>	<i>Leanne Pearce</i>	<i>Chris O'Neill</i>	<i>Elisabetta Carrara</i>	<i>Andrew Western</i>
1355-1415	Evaluation of a post-processing method for high-resolution gridded rainfall forecasts Durga Shrestha	Defining acceptable impacts for flood impact assessments Monique Retallick	Evaluating the effect of farm management on nutrient inflows to receiving water bodies in WA using paddock and catchment models Joel Hall	A national hydrological projection service – Australia's water balance in the future Wendy Sharples	Shifting goal posts: exploring non-stationarity of climate inputs and sequences on environmental water outcomes Andrew John
1415-1435	An integrated framework for short-term probabilistic flood forecasting using an event-based approach considering the uncertainty associated with natural variability Katayoon Bahramian	ARR has changed. What about my cost-benefit analysis? Sam Marginson	Integrated modelling of spatio-temporal variability in stream water quality across Victorian catchments Danlu Guo	The Australian landscape water balance model – AWRA-L: improved performance, regional calibration and local case study David Peter Wright	An evidence-based management decision framework for improving the effectiveness and efficiency of environmental watering of Black Box eucalypts using a vulnerability, confidence and multiple-scale approach Brittany Coff
1435-1455	Flood forecasting and the forecaster's dilemma: testing a new ensemble flood forecasting system for Australia James Bennett	Modelling to support flood resilience in a rapidly developing environment in WA Stephan Suter	Calibration of a catchment-scale water quality model using PEST Manoj Shrestha	Towards improved groundwater processes in AWRA-L Keirnan Fowler	Which way did the water go? Floodplain decisions for environmental benefits Andrew Herron
1455-1515	Reforecast based Operations I - A comparison with rain-on-ground based operational rationale Greg McMahan	Improved information for future decision making Andrew Chapman	Modelling microbial source pathways at the catchment scale Lydia Cetin	Seasonal predictions of soil moisture and evapotranspiration for the Sydney region using the AWRA landscape water balance model Elisabeth Vogel & Andrew Frost	From hydrodynamic modelling to operational decision making: managing bar openings at Toby Inlet to improve water quality Joel Hall
1515-1540	Afternoon tea and poster session – Exhibition area - Level 1 Foyer				
1540-1700	Concurrent sessions				
	Concurrent 3A	Concurrent 3B	Concurrent 3C	Concurrent 3D	Concurrent 3E
Theme	Flood risk modelling and management	Flood risk modelling and management	Integrated water management	Informing policy and operational decisions	Healthy waterways
Room	Ballroom 2 & 3	Ballroom 1	Stradbroke	Huntingfield	Delacombe
Chair	<i>Ben Tate</i>	<i>Monique Retallick</i>	<i>Jill Fagan</i>	<i>Fiona Johnson</i>	<i>Ian Cordery</i>
1540-1600	Verifying small scale floods with remote-sensing data Nicholas Klein	Time saving automation for ARR2016 Karen Brakell	Assessing baselines for seasonal rainfall with relevance to decision-making Surendra Rauniyar	Severe drought in Victoria: Assessing the palaeoclimate baseline and water supply drought risk at the 1.5°C and 2.0°C Paris targets Benjamin Henley	Identifying threat to waterway health through changes in the flow regime David Parker
1600-1620	TUFLOW classic and HPC comparison using a coupled 1D/2D model of Toowoomba Monika Balicki	Review of recent enhancements to RORB: a tool for promoting application of ARR 2016 David Stephens	Bias in downscaled rainfall characteristics relative to climate-change signal Nick Potter	The potential for tree ring hydrologic reconstructions in Australia – what does the future hold? Danielle Verdon-Kidd	Can urban stream flow regime be restored by stormwater control measures? Congying Li
1620-1640	Impacts of computational mesh and terrain resolution on flood mapping and community flood planning Andrew Herron	A comparative look at design flood estimation between the 2016 ARR and the current South African standards Ryan Gray	Effect of bias correction of downscaled rainfall on runoff projections Steve Charles	Making sense of palaeoclimate reconstructions for Australian water resources assessments: A review Natasha Ballis	Improving flood forecast skill using remote sensing data Stefania Grimaldi
1640-1700	Robust flood inundation modelling using flexible mesh hydrodynamic model and remote sensing Fazlul Karim	An investigation into the efficacy of Australian rainfall & runoff 2016 procedures in the Mount Lofty Ranges, South Australia David Kemp	Rainfall-runoff modelling to predict streamflow characteristics in ungauged catchments and under climate change Hongxing Zheng	Supplementing flood frequency analysis with pre-record paleofloods Adam Broit	Comparing different methods to assess long term climate change implications on environmental flow compliance and shortfalls in the Yarra River Joanna Szemis
1700-1800	Munro Oration refreshments		Level 1 Foyer		
Chair	<i>Andrew McCowan</i>				
1800-1900	Munro Oration presentation		Ballroom 2 & 3		

Wednesday 5 December					
0800-1700	Registration opens				Level 1 Foyer
0800-1700	Exhibition opens				Level 1 Foyer
Chair	<i>Phillip Jordan</i>				
0915-1010	Keynote Presentation <i>Water security of China under change and solutions to challenges</i> Jianyun Zhang				Ballroom 2 & 3
1010-1040	Morning tea – Exhibition area - Level 1 Foyer				
1040-1200	Concurrent sessions				
	Concurrent 4A	Concurrent 4B	Concurrent 4C	Concurrent 4D	Concurrent 4E
Theme	Flood risk modelling and management	Informing policy and operational decisions	Informing policy and operational decisions	Flood risk modelling and management	Informing policy and operational decisions
Room	Ballroom 2 & 3	Ballroom 1	Stradbroke	Huntingfield	Delacombe
Chair	<i>William Weeks</i>	<i>Kate Austin</i>	<i>QJ Wang</i>	<i>Brett Phillips</i>	<i>Kumar Savadamuthu</i>
1040-1100	Comparing the new design rainfalls to at-site rainfall frequency curves Janice Green	Climate influences behind Victoria's changing rainfall Pandora Hope	Evaluation of multi-model rainfall forecasts for the national 7-day ensemble streamflow forecasting service Aynul Kabir	Selection of appropriate infiltration systems for stormwater quality control in South Australia (SA) Farjana Akhter	Surface water management and forecasting for the Douglas Mine in Western Victoria Ben Tate
1100-1120	Ensemble assessment and gridded surface response Mikayla Ward	Towards understanding long-term catchment memory Margarita Saft	Short-range streamflow forecasts for the Great Barrier Reef using semi-distributed and distributed hydrological models Urooj Khan	Methodology for determining floodway / flow conveyance extent in Australian floodplains Chris Thomas	Understanding deep aquifer responses to interseam materials of brown coal mines Sid Rastogi
1120-1140	Benchmarking the selection of AEP neutral hydrologic design floods for use in 2D hydraulic models Matthew Scorah	Catchment drought response and recover: empirical estimates of hydrological resilience throughout Victoria Tim Peterson	On systematic biases in hydrologic simulations for a future climate – correction in the spectral domain Ashish Sharma	Flood impact assessment for major infrastructure projects Lisa Pomeroy	Event-based versus duration-based assessment for long-term modelling of mining impacts Krey Price
1140-1200	A quick method for estimating the probable maximum flood in the coastal GTSMR zone Samantha Watt	River catchments have long 'memories': implications for climate change impact studies Keirnan Fowler	Easily accessing real time calibrated radar rainfall data for improved operational water management Brian Jackson	Choosing the right defence – a tool for selecting the appropriate urban flood defence Edward Bond	Managed aquifer recharge in a mining operations water management strategy Kerstin Brauns
1200-1300	Lunch and poster sessions – Exhibition area - Level 1 Foyer				
1300-1440	Concurrent sessions				
	Concurrent 5A	Concurrent 5B	Concurrent 5C	Concurrent 5D	Concurrent 5E
Theme	Flood risk modelling and management	Flood risk modelling and management	Informing policy and operational decisions	Informing policy and operational decisions	Integrated water management
Room	Ballroom 2 & 3	Ballroom 1	Stradbroke	Huntingfield	Delacombe
Chair	<i>Samantha Watt</i>	<i>Andrew Herron</i>	<i>Seth Westra</i>	<i>Heerbod Jahanbani</i>	<i>Geoff Steendam</i>
1300-1320	Applicability of kriging to regional flood estimation problem in Victoria Sabrina Ali	Determination of pre-burst rainfalls for Australian rainfall and runoff Scott Podger	Water data online Todd Lovell	Changes in annual rainfall-runoff responses in Melbourne's major water supply catchments Kim Seong Tan	Reporting on groundwater condition for decision making Rezina Shams
1320-1340	Another step in the difficult journey to regionalise a probability-based loss model Declan O'Shea	Pre-burst impacts on peak flows and volumes Joel Sercombe	Victorian monitoring partnerships: water data through collaboration Craig Mutton	Declines in water availability across Victoria Andrea Ballinger	Victoria's water table over 30 years: data-driven hydrological insights into catchment dynamics Tim Peterson
1340-1400	The impact of locally-derived space-time patterns on the development of design floods for large catchments Tim Craig	Characterising the location and rarity of annual maxima rainfall in the GTSM-R coastal zone Simon Lang	Making it real - the delivery of real time water data in Victoria Paul Wilson	Climate change effects on South-East Australian water resources Ian Cordery	Impact of urbanisation on groundwater and the downstream river: a Ballarat case study David Ebbs
1400-1420	Moisture sources of floods and pre-extreme conditions Ruud van der Ent	Making it rain with shiny Evan O'Brien & Andrew Barker	Hillslope runoff generation with low-cost instream sensors Alicja Makarewicz	Extended drought modelling scenarios using data from millennium drought Patrick Quaine	The Greater Bunbury Groundwater and Surface Water Interactions Model as a decision support tool for water management, south-west Western Australia Muhammad Alam
1420-1440	Comparison of results for flood frequency analysis using annual maximum series and peaks-over-threshold methods Xiao Pan	The need for and derivation of revised intensity frequency duration curves for the Illawarra Basin Scott Podger	Visualising hydrologic data Anthony Ladson	Wavelet-based downscaling for drought assessment Fiona Johnson	Assessment of surface water and groundwater interaction during drought and non-drought periods in eastern Australian catchments Falguni Biswas
1440-1510	Afternoon tea – Exhibition area - Level 1 Foyer				

Wednesday 5 December (cont.)

1510-1630					
Concurrent sessions					
	Concurrent 6A	Concurrent 6B	Concurrent 6C	Concurrent 6D	Concurrent 6E
Theme	Flood risk modelling and management	Integrated water management	Informing policy and operational decisions	Integrated water management	Informing policy and operational decisions
Room	Ballroom 2 & 3	Ballroom 1	Stradbroke	Huntingfield	Delacombe
Chair	<i>Lisa Lowe</i>	<i>Katherine Daniell</i>	<i>Simon Lang</i>	<i>Stefania Grimaldi</i>	<i>Phil Pedruco</i>
1510-1530	A framework for creating spatially dependent Intensity-Duration-Frequency curves Michael Leonard & Seth Westra	Strategic water resource assessment under climatic uncertainty Mahmudul Haque	Application of WaterGuide – a framework for improved water resource management in Jordan Kate Austin & Huw Pohlner	Multi-functional constructed wetland for improving downstream waterway in Western Australia: A long-term monitoring outcomes Tanveer Adyel	Diagnostic assessment of the multi-month streamflow forecasts of the Bureau of Meteorology, Australia Julien Lerat
1530-1550	Artificial neural networks as surrogate models for flood inundation modelling QJ Wang	Testing the robustness of optimal operating plans under various future hydro-climatic scenarios Walter Godoy	Do groundwater management plans work? Quantifying the effectiveness of groundwater management Emma White	Assessing the impact of climate and catchment changes in Wimmera wetlands Ben Hughes	Post-processing of monthly seasonal streamflow forecasts Julien Lerat
1550-1610	Understanding coincident flood risk in levee operations Evan O'Brien	Climate change impact assessment for WaterNSW infrastructure strategy Selvaratnam Maheswaran	Challenges and opportunities in developing and implementing the Melbourne Water System Strategy David Flower	Limitations and constraints for the Water Sensitive Urban Design (WSUD) approaches implementation in existing urbanised catchments Samira Rashednia	Engaging with stakeholders to explore the value of streamflow forecasts for decision making Paul Feikema
1610-1630	Censored continuous simulation for compound flood estimation in estuarine regions Wenyan Wu	ForeSIGHT – an R tool for climate resilience assessments of water resource systems Seth Westra		A new approach to integrated water management in Victoria, Australia - achieving greater results through collaboration and partnerships Dennis Corbett	
1900-2300	Gala Dinner		ZINC at Federation Square		

Thursday 6 December					
0800-1500	Registration opens				Level 1 Foyer
0800-1540	Exhibition opens				Level 1 Foyer
Chair	<i>Warwick Bishop</i>				
0915-1010	Keynote Presentation <i>Water reform in Australia – past, present and future</i> Jane Doolan				Ballroom 2 & 3
1010-1040	Morning tea – Exhibition area - Level 1 Foyer				
1040-1200	Concurrent sessions				
	Concurrent 7A	Concurrent 7B	Concurrent 7C	Concurrent 7D	Concurrent 7E
Theme	Flood risk modelling and management	Flood risk modelling and management	Informing policy and operational decisions	Understanding water use	Understanding water use
Room	Ballroom 2 & 3	Ballroom 1	Stradbroke	Huntingfield	Delacombe
Chair	<i>Peter Coombes</i>	<i>Rebecca Lett</i>	<i>Avril Horne</i>	<i>Anthony Ladson</i>	<i>Robert Argent</i>
1040-1100	How can we assess flood model performance under climate change? Clare Stephens	Benchmarking hydrological and hydraulic models in a gauged urban catchment in the ACT Brett Phillips	Use of water data for integrated water management strategic planning Kyle Wang	Impacts of large scale changes in land use on water availability across Victoria Robert Morden	Projection of irrigation water demand in lower Murray water service areas QJ Wang
1100-1120	Climate change impacts on flood risk mitigation in urban/developed catchments Suresh Hettiarachchi	Developing an urban regional flood frequency estimation procedure for Australia Rhys Thomson	Water markets – information is power Matthew Walker	Trends in farm dam development over time in Victoria, 2000-2015 Phillip Jordan	Return flows: review and a need for understanding James Fuller
1120-1140	Flood frequency analysis under changing climate: A cast study for Brisbane River catchment Anwar Hossain	The Frederick Street catchment in Adelaide – a review of the 1960s rational method design and change in drainage standard due to infill development David Kemp	The Victorian water register – next generation Brett Miller	Investigating impacts of groundwater abstractions using a nonlinear transfer function time-series model in the northern Victoria Xiang Cheng	Understanding the decision-making behaviour of water supply authorities in an irrigation management system Lubna Meempatta
1140-1200	Identifying the existence of any periodicity in flooding Greg McMahon	Assessing climate change impacts on rural flooding in Victoria Phil Pedruco	Applying water accounting to industry and utilities: the potential benefits Andrew Terracini		
1200-1300	Lunch – Exhibition area - Level 1 Foyer				
1300-1400	Concurrent sessions				
	Concurrent 8A	Concurrent 8B		Concurrent 8D	Concurrent 8E
Theme	Integrated water management	Community participation and ownership		Informing policy and operational decisions	Doing more with less
Room	Ballroom 2 & 3	Ballroom 1		Huntingfield	Delacombe
Chair	<i>Mark Babister</i>	<i>Ashish Sharma</i>		<i>Bruce Rhodes</i>	<i>David Kemp</i>
1300-1320	A computer tool for designing Onsite Detention (OSD) based on new Australian Rainfall and Runoff (ARR) Monzur Imteaz	Supporting resilient communities in the Pilbara through irrigation opportunities Kate Dowsley		Effect of climate change on the WSUD performance Eric Lam	Apportioning allocations to users of multi-storage water supply systems: a case study of making a complex volume shared system more transparent Andrew Barton
1320-1340	Performance of urban on-site detention systems using the ARR2016 design rainfall inputs Jason Ko	3D PDF to support community understanding of water plans in the Daly, Northern Territory Ben DiGregorio		The millennium droughts effect on catchment water balance and its components in Victoria, Australia Tim Peterson	Making every drop count in regional WA - bitumen water supply catchments Leanne Pearce
1340-1400	Prediction of number of pipe bursts in water distribution systems by using a pressure index Savalan Pour Akbarkhiavi	Exploring stakeholder interactions and levels of involvement in water resources management Marina Costa Barbosa		Lessons learnt in developing the pilot Victorian water sector climate change adaptation action plan Jill Fagan	Agile modelling: current practice, fad or future? Marlene van der Sterren
1400-1410	Move between sessions				
Chair	<i>Phillip Jordan</i>				
1410-1500	Closing ceremony				Ballroom 2 & 3
1500-1540	Closing refreshments – Exhibition area - Level 1 Foyer				