



2019 FLOODPLAIN MANAGEMENT AUSTRALIA

NATIONAL CONFERENCE

*A National Call to Action:
Making Australia Flood Safe*

14 - 17 May 2019

Hotel Realm, Canberra, ACT

www.floodplainconference.com



CONFERENCE PROGRAM

(as at 9th May please note this is subject to change)

Monday 13th May 2019

9.30am – 5.00pm **Application of Australian Rainfall and Runoff (ARR2019) in Urban Areas (One Day Workshop), Hotel Realm**

Tuesday 14th May 2019

8.00am – 9.00am **Pre-Conference Flood Workshop Registration**

Session 1 Concurrent Workshops 9.00am – 10.30am

Location:	National Ballroom 1	National Ballroom 2
	½ Day Morning Workshop: Introduction to Floodplain Risk Management	Full Day Workshop: Total Flood Warning Systems

10.30am – 11.00am Morning Tea

Session 2 Concurrent Workshops 11.00am – 12.30pm

Location:	National Ballroom 1	National Ballroom 2
	½ Day Morning Workshop: Introduction to Floodplain Risk Management	Full Day Workshop: Total Flood Warning Systems

12.30pm – 1.30pm Lunch

Session 3 Concurrent Workshops 1.30pm – 3.00pm

Location:	National Ballroom 1	National Ballroom 2
	½ Day Afternoon Workshop: Modelling for Non-Modellers	Full Day Workshop: Total Flood Warning Systems

3.00pm – 3.30pm Afternoon Tea

Session 4 Concurrent Workshops – continued 3.30pm – 5.00pm

Location:	National Ballroom 1	National Ballroom 2
	½ Day Afternoon Workshop: Modelling for Non-Modellers	Full Day Workshop: Total Flood Warning Systems

5.00pm – 7.00pm **Conference Welcome Reception**
Sponsored by “NSW State Emergency Service”

Day One – Wednesday 15 May 2019

7.30am Conference Registration

Session 1 Plenary 8.30am – 10.10am
Location: National Ballroom 1 & 2
Chair: Danny Rose

8.30am **Welcome to Country**

8.40am **Welcome from Floodplain Management Australia**
Ian Dinham, President, Floodplain Management Australia

8.55am **ACT Minister Mick Gentleman MLA Welcome Address, Minister for the Environment and Heritage, Minister for Planning and Land Management & Minister for Police and Emergency Services**

9.15am **Australian Rainfall and Runoff Announcement,**
Glen Crawley, Engineers Australia and Dr Andy Barnicoat, Geoscience Australia.

9.20am **Platinum Sponsor “Insurance Council of Australia” Address**
Karl Sullivan, General Manager, Policy Risk and Disaster, Insurance Council of Australia

9.25am **“Beyond the Torrent: Climate Change through a Finance and Liability Risk Lens”**
Sarah Barker, Head of Climate Risk Governance, MinterEllison

10.10am – 10.40am Morning Tea + Poster Presentations

Session 2 Concurrent 10.40am – 12.40pm

	Session 2A: Flood Policy, Guidance and Best Practice	Session 2B: Communicating Flood Hazard and Risk	Session 2C: Modelling	Session 2D: Emergency Preparedness and Management
Chair:	Larry Bolitho	Hamid Mirfenderesk	Rebecca Lett	Gabrielle Eckert
Location:	National Ballroom 2	National Ballroom 1	High Courtyard North	High Courtyard South
10.40am – 11.10am	How Reliable is Your Design Flood Estimate? Mark Babister, WMAwater	Australia Speaks: National Survey Exploring Experiences and Attitudes Towards Entering Floodwater Mel Taylor, Macquarie University	Cooking Up ARR16 Storms in Wollongong – the Importance of Using Local Ingredients Isabelle Gheti, Wollongong City Council	Mainstream Technology Trends - Identifying New Vulnerabilities and Opportunities in Flood Emergency Management Kara Agllias, Royal HaskoningDHV
11.10am – 11.40am	The Design Flood – Have we got it Right? Mike Edwards, Department of Environment, Land, Water and Planning	Increasing Community Resilience to Flooding in the Hawkesbury-Nepean Valley Holly Langler Infrastructure NSW	The Need to Manage the Looming "Big Flood Data" Problem Cameron Druery, Advisian	Better Practice Disaster Planning for Catastrophic Flood Disasters Andrew Gissing, Risk Frontiers

	Session 2A cont	Session 2B cont	Session 2C cont	Session 2D cont
11.40am – 12.10pm	‘Room for the River’: Are European Flood Mitigation Strategies Applicable for Australia? Kieran McAndrew , <i>Clarence Valley Council</i>	A System Approach for Managing and Communicating Risk for Levee-Protected Communities Sharyn Westlake <i>Greater Wellington Regional Council</i> International presenter	Rain on Grid Modelling for Rural Catchments Rhain Bateman , <i>West Gippsland Catchment Management Authority</i>	Watering Down Risk: Flood Emergency Management Plans Laurence Allan , <i>Allan & Dennis</i>
12.10pm – 12.40pm	Otaki Flood Damage Assessment: Quantify the Impact of Structural Works Nuno Lopes Jeronimo , <i>DHI Water and Environment Ltd</i> International presenter	Moving Towards National-scale Flood Maps and Impact Forecasts Dan Rodger , <i>Jeremy Benn Pacific</i>	Rainwater Harvesting for Urban Flood Management – an Integrated Modelling Framework Behzad Jamali , <i>Monash University</i>	Flood Forecasting – Managing Flood Events in the Face of Uncertainty Fiona Ling , <i>WMAwater</i>

12.40pm – 1.30pm Lunch + Poster Presentations

1.00pm FT1: ACT Dam Upgrade & Healthy Waterways long tour departs

Session 3 Concurrent 1.30pm – 3.00pm

	Session 3A: Flood Policy, Guidance and Best Practice	Session 3B: Social and Cultural Aspects	Session 3C: Infrastructure Projects and Asset Management (Levees)	Session 3D: 10 Minute Presentations
Chair:	William Prentice	Isabelle Ghatti	John Murtagh	Catherine McGrath
Location:	National Ballroom 2	National Ballroom 1	High Courtyard North	High Courtyard South
1.30pm – 2.00pm	Brisbane River Strategic Floodplain Management Plan: a Regionally Coordinated and Multi-disciplined Approach Graeme Milligan , <i>Queensland Reconstruction Authority</i>	We’ll Come to You – Door Knocking in two Wollongong Floodplains Emma Maratea , <i>Rhelm</i>	The Realities of Flood Proofing Towns Using Levees Ed Henty , <i>Cardno</i>	1.30pm – 1.45pm Achieving the “All Hazards Approach”: Expanding Mapping Support from Bushfires to Floods Gabrielle Eckert , <i>SA Department for Environment and Water</i>
				1.45pm – 2.00pm Managing Hazards at the Milford Huts - Opihi River Mouth Philip Lees , <i>Environment Canterbury</i> International presenter

	Session 3A cont	Session 3B cont	Session 3C cont	Session 3D cont
2.00pm – 2.30pm	Brisbane Citywide Overland Flow Path Modelling and Flood Risk Mapping Brany Iezzi, <i>Brisbane City Council</i>	Mapping Social Vulnerability in a High-Risk Flood Affected Rural Region of NSW, Australia Margaret Rolfe, <i>University of Sydney</i>	Flood Mitigation Asset – Levee Reconstruction in an Estuary with Multiple Management Issues Mir Abdus Subhan, <i>Camden Council & Ali Sevenler,</i> <i>Shoalhaven City Council</i>	2.00pm – 2.15pm Communicating Planning Scheme Amendments in Victoria Ben Hughes, <i>Water Technology</i>
				2.15pm – 2.30pm A Method to Better Assess the Effectiveness of Flood Warnings Hench Wang <i>Hydrology and Risk Consulting (HARC)</i>
2.30pm – 3.00pm	Towards a State-Wide Disaster Resilience Investment Framework Charlotte Spliethoff, <i>Queensland Reconstruction Authority</i>	Analysing the Social Impacts of Flood Risk Management Options Neil Dufty, <i>Molino Stewart Pty Ltd</i>	The Performance of NSW Urban Levees Adjacent to Riverbanks Fred Spain, <i>NSW Public Works Advisory</i>	2.30pm – 2.45pm City of Wagga Wagga: Protecting the City and People During a Flood Andrew Mason, <i>Wagga Wagga City Council</i>
				2.45pm – 3.00pm Using Animation to Clear Muddied Waters Oscar Garratt, <i>Wollongong City Council</i>

Session 4

Short Field Trips

3.10pm – 5.30pm

Afternoon Tea on Field Trip

5.30pm

Close of Day One

7.00pm

Casual Dinner, National Museum of Australia
Sponsored by "WMAwater"

Day Two – Thursday 16 May 2019

7.30am **Councillors Choice Breakfast Session** – High Courtyard North
Opportunity for Councillors to raise and discuss issues of importance to Local Government

8.00am **Registration (for 1 Day delegates)**

Session 5 Concurrent 9.00am – 10.30am

	5A: Flood Policy, Guidance and Best Practice	5B: National Collaboration and Coordination	5C: Flood Prediction and Warning	5D: 10 Minute Presentations
Chair:	Dwayne Honor	Ailsa Schofield	Justin Robinson	Danny Rose
Location:	National Ballroom 2	National Ballroom 1	High Courtyard North	High Courtyard South
9.00am – 9.30am	The Flood Resilient Homes Program – Empowering Residents to Live Through Floods Oswatta Perera, <i>Brisbane City Council</i>	Sustainable Flood Warning Infrastructure: the Benefits of National Collaboration Carla Mooney, <i>Bureau of Meteorology</i>	Is Real Time Giving us More Time? Sophia Buchanan, <i>Innovyze & Adam Berry,</i> <i>Synergy Solutions</i>	9.00am – 9.15am A Potential Slowing of Tropical Cyclones in Australia and Implications for Flooding Thomas Mortlock, <i>Risk Frontiers</i>
				9.15am – 9.30am Elements of a Flood Disaster – Understanding the 2011 Grantham Flood Baijie Chen, <i>WRM Water & Environment</i>
9.30am – 10.00am	Practical application of the NSW DSC's guidelines on the design of detention basin safety upgrades for prescribed dams Nick Lewis, <i>Royal HaskoningDHV</i>	Improving Flood Forecasting Services in England and Australia Through International Collaboration Alex Cornish, <i>Bureau of Meteorology</i>	NSW Extreme Ocean Water Levels Bronson McPherson, <i>Manly Hydraulics Laboratory</i>	9.30am – 9.45am When Perception and Evidence-Based Practice Collide – Floodplain Management in the Aftermath of the 2016 Floods at St Marys, Tasmania Lachlan Inglis, <i>Water Technology</i>
				9.45am – 10.00am Developing an Emergency Management Sector Adaptation Plan for Climate Change in Queensland Matthew Thompson <i>Queensland Fire and Emergency Services</i>

	Session 5A cont	Session 5B cont	Session 5C cont	Session 5D cont
10.00am – 10.30am	Shelter in Place - are we in a Policy Vacuum? Chris Thomas , <i>Advisian</i>	When you Don't Fit the Mould – Creating Local Guidance for Wollongong LGA Rhys Thomson , <i>RHELM</i>	FloodSmart Parramatta: A Total Flash Flood Warning Service Chris Gooch , <i>City of Parramatta Council</i>	10.00am – 10.15am Legal Perspectives of Levee Ownership and Maintenance in NSW Kieran McAndrew , <i>Clarence Valley Council</i>
				10.15am – 10.30am Planned Retreat or Hold the Line – A Coastal Community Conundrum Chris Fauth , <i>Environment Canterbury</i> International presenter

10.30am – 11.00am Morning Tea + Poster Presentations

Session 6 Plenary 11.00am – 12.45pm
Location: National Ballroom 1 & 2
Chair: Sue Ribbons

11.00am **Welcome to Day 2**

11.05am **A National Call to Action: Making Australia Flood Safe**

State and Territory Representatives provide 5 minute snapshots of

- events since the 2018 Conference,
- priority flood issues, and
- opportunities for a National approach

ACT: Cameron Beresford, *ACT State Emergency Service*

NSW: Danny Rose, *Tweed Shire Council, FMA Technical Director*

NT: To be advised

QLD: Dwayne Honor, *Bundaberg Regional Council, FMA Queensland Director*

SA: Gabrielle Eckert, *SA Department for Environment and Water*

TAS: Luke Roberts, *State Emergency Service Tasmania*

VIC: Mike Edwards, *Department of Environment, Land, Water and Planning*

WA: Lauren Greening, *Department of Water and Environmental Regulation.*

The Panel of Experts builds on the issues from the State and Territory presentations to explore priorities for a national approach for *Making Australia Flood Safe*.

12.40pm **Gold Sponsor “NSW Office of Environment & Heritage” Address**
Duncan McLuckie, *Principal Flood Specialist, NSW Office of Environment and Heritage*

12.45pm – 1.45pm Lunch + Poster Presentations

Session 7 Concurrent

1.45pm – 3.15pm

	Session 7A: NSW Office of Environment & Heritage	Session 7B: Modelling	Session 7C: Land Use Planning	Session 7D: Flood Prediction and Warning
Chair:	Ainslie Frazer	Allan Gear	Paul Grech	Mike Edwards
Location:	National Ballroom 2	National Ballroom 1	High Courtyard North	High Courtyard South
1.45pm – 2.15pm	<p>Directions to Improve Guidance for Floodplain Management in NSW</p> <p><i>This will discuss the Floodplain Development Manual and supporting guides and tools for areas including flood hazard, flood emergency response classification and flood function and future priorities.</i></p> <p>Duncan McLuckie Angela Toniato & Elise Armstrong <i>NSW Office of Environment and Heritage</i></p>	<p>Evaluating Regional and Downstream Impacts of a Roadway Encroachment into the Floodplain</p> <p>Mark Forest, HDR <i>International presenter</i></p>	<p>Enhancing the Resilience of our Communities to Natural Hazards Through Private Developments</p> <p>Shane Murrhly, Devalign</p>	<p>Integrating Real-time Landscape Changes in Flood Forecasting</p> <p>Ben Caddis, BMT</p>
2.15pm – 2.45pm		<p>Application of Australian Rainfall and Runoff 2016 Guidelines to Slacks and Scrubby Creek Catchment</p> <p>Janaka Gunawardena, <i>Logan City Council</i></p>	<p>Risk-based Land Use Planning: Evolving from the Q100 Quagmire</p> <p>Shannon McGuire, Ethos Urban & Carrie Dearnley, BMT</p>	<p>The Application of Info4eco Flash Flood Technology to Canberra's February 2018 Flood</p> <p>Nick Streeton, <i>Info4eco</i></p>
2.45pm – 3.15pm		<p>Impact of Erosion/Deposition Processes during Design Floods on the Flood Planning Levels? – A case study on the impact of a movable bed on flooding behaviour of rivers</p> <p>Hamid Mirfenderesk, <i>City of Gold Coast</i></p>	<p>Clustering Flood Risk- Are We Compounding the Problem by Using the 1% AEP Level for Too Much?</p> <p>Monique Retallick, <i>WMAwater</i></p>	<p>Practical Applications of Low-Cost Water Level Gauges in a Flood Early Warning Network</p> <p>Mitchell Redenbach, <i>Water Modelling Solutions</i></p>

3.15pm – 3.45pm Afternoon Tea + Poster Presentations

Session 8**FMA Annual General Meeting**

3.45pm – 5.30pm

*“All FMA Members please attend”***8A: FMA Annual General Meeting***“All FMA Members please attend”***8B: Big Data, Better Outcomes Workshop**

Location: National Ballroom 2

Location: National Ballroom 1

Real-time data, the internet of things & low-cost technology – flood professionals have access to more data than ever before and in near real-time. How can we exploit this opportunity for better calibrated flood models and improved disaster management, without getting overwhelmed by mountains of data?

This workshop will explore new and emerging data sources and collection techniques, explore potential applications and highlight industry challenges.

5.30pm**Close of Day Two****7.00pm**

Conference Dinner & The Floodplain Management Australia Excellence Awards, Old Parliament House

Sponsored by “Royal HaskoningDHV”

Day Three – Friday 17 May 2019

8.30am Registration (for 1 Day delegates)

Session 9 Plenary

9.00am – 10.20am

Location: National Ballroom 1 & 2

Chair: Allan Ezzy

- 9.00am **Welcome to Day 3**
- 9.05am **Silver Sponsor “BMT” Address**
Chris Huxley, *Principal Engineer - BMT and TUFLOW Software*
- 9.10am **Presentation by Winner of the FMA-NRMA Insurance Flood Risk Management Project of the Year Award**
- 9.25am **Silver Sponsor “Bureau of Meteorology” Address**
Justin Robinson, *National Flood Services Manager (NSW & ACT) of Bureau of Meteorology*
- 9.30am **“Emergency Management around the World - Challenges and Lessons Learned”**
Harald Drager, *President of The International Emergency Management Society*. (Presented by **Neil Dufty**, Regional Director for Australia, New Zealand and Oceania of The International Emergency Management Society)
- 10.10am **2020 FMA National Conference Presentation**
Clr Carol Taylor, *Deputy Mayor, Toowoomba Regional Council*

10.20am – 10.50am Morning Tea + Poster Presentations

Session 10

Concurrent

10.50am – 12.50pm

	Session 10A: Land Use Planning	Session 10B: Infrastructure Projects and Asset Management	Session 10C: Social and Cultural Aspects	Session 10D: Environmental Aspects (Climate)
Chair	Isabelle Testoni	Carrie Dearnley	Catherine McGrath	Wafaa Wasif
Location:	National Ballroom 2	National Ballroom 1	High Courtyard North	High Courtyard South
10.50am – 11.20am	How do you Develop a Regional Landuse Planning Framework for the Hawkesbury- Nepean Valley? Melanie Schwecke , <i>Department of Planning and Environment</i>	Learning from the Oroville Dam Spillway Failure Robert Boling , <i>HDR</i> <i>International presenter</i>	Capacity Building Approach to Disaster Preparedness Sarah U'Brien , <i>Dungog Shire Community Centre</i>	Canberra's Floodplain Management in a Changing Climate Patrick Paynter , <i>Environment, Planning and Sustainable Development Directorate</i>
11.20am – 11.50am	A Penny for Your Flood – Quantifying the Impact Rhys Thomson , <i>Rhelm</i>	Best Practice Planning for Residual Risk Behind Levees: the Launceston Experience Joel Leister , <i>BMT Eastern Australia</i>	The Path of Least Resistance: Engaging Senior Citizens in the Inverleigh Flood Study Angela Vary , <i>Department of Environment Land Water and Planning</i>	Estimating Peak Design Flows Under Climate Change Incorporating Increased Rainfall Intensities and Drier Antecedent Conditions Rebecca Lett , <i>Department of Environment Land Water and Planning</i>

	Session 10A cont	Session 10B cont	Session 10C cont	Session 10D cont
11.50am – 12.20pm	Strategic Planning in a Highly Developed Rural Floodplain (Macquarie River) Tim Morrison, <i>HydroSpatial</i>	Assessing Tangible and Intangible Flood Impacts in Newstead, Launceston Tariq Maqsood, <i>RMIT University</i>	Flood Waters and Mosquitoes - a Public Health Perspective Melissa Wilson, <i>Buloke Shire Council</i>	Regional Sensitivity of Flood Risk to Climate Drivers Philip Conway, <i>IAG Natural Perils</i>
12.20pm – 12.50pm	NSW Voluntary Purchase Scheme – A Council's Experience Leon McLean, <i>Tweed Shire Council</i>	Flood Mitigation Challenges in Built Urban Environment Liverpool CBD Case Study Madhu Pudasaini, <i>Liverpool City Council</i>	Advancing Flood Risk Management in Pacific Island Countries: Challenges and Priorities Stephen Yeo, <i>Flood Focus Consulting</i>	Strategic Assessment of the Impact of Climate Change on the Hunter Valley Flood Mitigation Scheme Grantley Smith, <i>Water Research Laboratory</i>

12.50pm – 1.40pm Lunch + Poster Presentations

Session 11 Concurrent 1.40pm – 3.10pm

	Session 11A: Flood Stories and Case Studies	Session 11B: Infrastructure Projects and Asset Management	Session 11C: Flood Policy, Guidance and Best Practice	Session 11D: 10 Minute Presentations
Chairs:	Marcus Morgan	Neil Dufty	Camille White	Catherine McGrath
Location:	National Ballroom 2	National Ballroom 1	High Courtyard North	High Courtyard South
1.40pm – 2.10pm	A Fluvial Transect Focus Builds Vision and Strategy for Flood Safe Communities Piet Filet, <i>Flood Community of Practice</i>	Flood Resilient Infrastructure – A Design Framework Steven Molino, <i>Molino Stewart</i>	Flood Modelling, not Just for Defining Flood Extents – the Nimmie Cairra Project Erin Askew, <i>WMAwater</i>	<p>1.40pm – 1.55pm Practical Application of ARR 2016 Procedures to Flood Modelling in a Variety of NSW Catchments Leon Collins, <i>Advisian</i></p> <p>1.55pm – 2.10pm Plain Speaking – Writing Flood Studies for Broad Understanding Richard Murphy, <i>NSW Office of Environment & Heritage</i></p>
2.10pm – 2.40pm	Lismore Floodplain Risk Management Study – the Technical Foundation – Challenge and Reward Scott Moffett, <i>Rous County Council</i>	Mass Warning and Siren Alert Notification for Advanced Community Warning: SunWater Case Study Tim Brewer, <i>Aquamonix</i>	Taking a Cue from Nature: Holistic Floodplain Management in Rockhampton Monishaa Prasad, <i>Rockhampton Regional Council</i>	<p>2.10pm – 2.25pm Development of an Automated Flooded Road Immunity Analysis Tool Wendy Carlisle, <i>Water Modelling Solutions</i></p> <p>2.25pm – 2.40pm Flood Data Reporting During and After the Cyclone Debbie Event in NSW Sarah Dakin, <i>Manly Hydraulics Laboratory</i></p>

	Session 11A cont	Session 11B cont	Session 11C cont	Session 11D cont
2.40pm – 3.10pm	Floodplain Management Services – Setting the Foundation for Rockhampton Jordan Maultby, <i>AECOM Australia</i>	Outcome Based Optimisation of Integrated Stormwater Infrastructure in Sydney’s South-West David Tetley, <i>Catchment Simulation Solutions</i>	What Kind of Research is Needed to Make Australia Flood Safe? Caroline Sullivan, <i>National Centre for Flood Research</i>	2.40pm – 2.55pm Comparison of Direct Rainfall Hydrology Approach with Traditional Hydrology: Three Case Studies Maria Pinto, <i>Camden Council</i>
				2.55pm – 3.10pm Community Involvement in Collection and Consumption of Real Time Data Julian Skipworth, <i>Water Modelling Solutions</i>

3.10pm – 3.40pm Conference Wrap Up with Afternoon Tea