26-27 FEBRUARY 2020

QWMN FORUM 2020

WATER MODELLING FOR THE FUTURE
science | data | tools | decisions

EVENT PROGRAM

BRISBANE EXHIBITION AND CONVENTION CENTRE
SOUTH BRISBANE

26-27 FEBRUARY 2020

QWMN FORUM 2020

In Queensland, the development and use of water models provides decision makers with the vital evidence they need for crafting policy, planning and managing resources. This work is underpinned by an ecosystem of professionals and organisations across a knowledge and technology supply chain – from research to model use and interpretation to communication – a supply chain that can also be referred to as a 'water modelling pipeline'.

The QWMN Forum 2020 will explore the operation of this water modelling pipeline, linking science, data, modelling, decision making and communication in the context of water security, urban design and liveability, and landscape restoration.

We will take you through the leading research, and explore development and implementation examples, to help answer these water modelling pipeline questions:

- do the pipelines in these areas work well?
- what can we learn from looking across the pipelines of other areas?
- how can we improve the operation of pipelines in different application areas?

The QWMN Forum 2020 builds on the success of 2017 and 2018 forums, and draws from more than 18 months of QWMN networking and community of practice events. The QWMN Forum 2020 brings together a broad cross-section of the Queensland water modelling and use sector, including those working in research, higher education, state and local government, water suppliers and utilities, data and model technology companies and consulting firms.

The QWMN Forum 2020 aims to:

- consolidate and grow awareness, participation and collaboration among water modellers and users in Queensland
- highlight and share knowledge of research and innovation in water models and use
- build ways to better work together to increase the use and usefulness of water models for policy, planning and management purposes
- identify themes and issues where the community of water modellers and users in Queensland can maximise future QWMN activities and events to progress these matters.

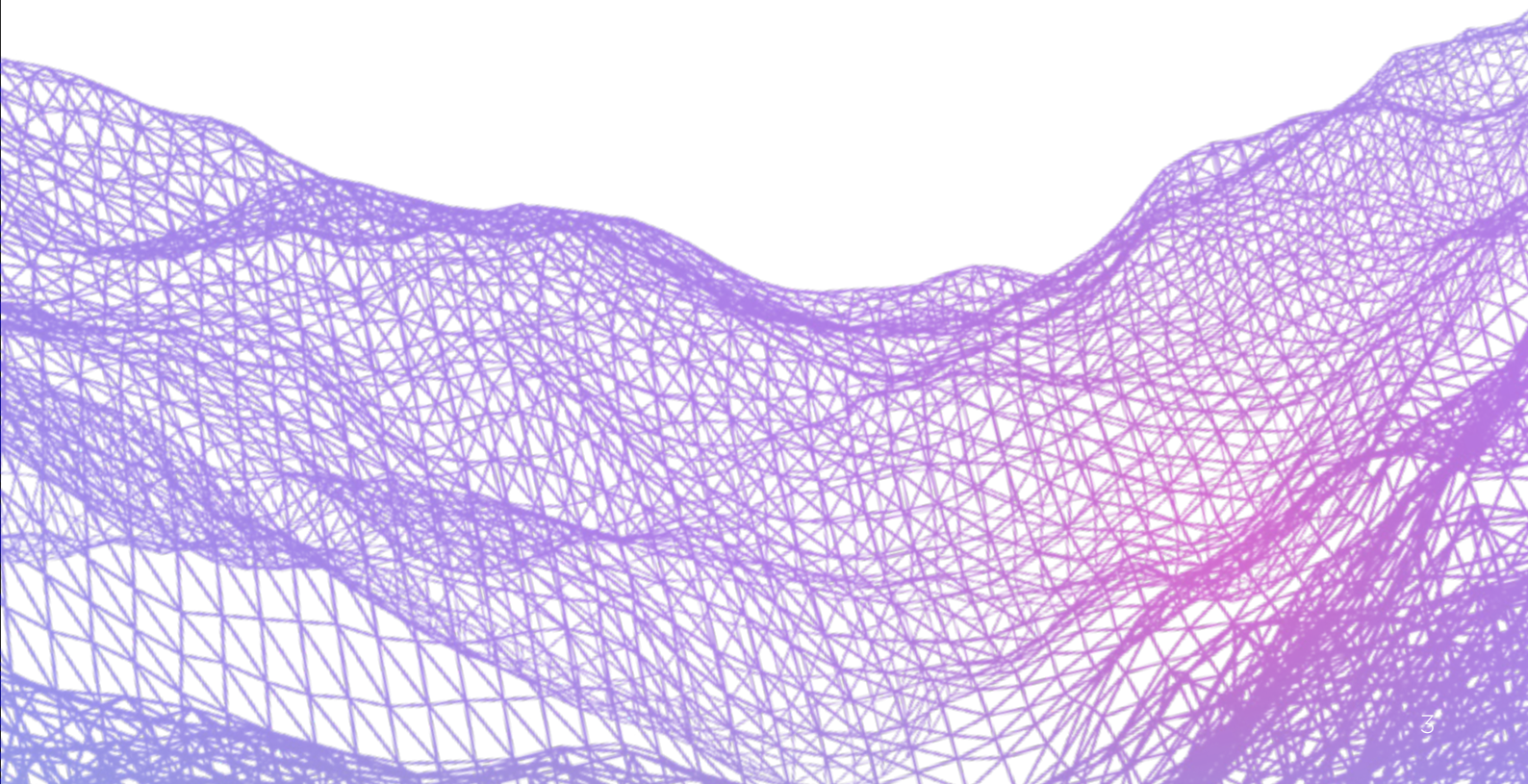
RESERVE YOUR PLACE

To purchase your ticket, visit watermodelling.org/events

Tickets: $100 - $250

BUY NOW

EVENT SCHEDULE



DAY 1 – Wednesday 26 February

8:15-9:00 REGISTRATION AND NETWORKING		
9:00-9:20 WELCOME AND SCENE SETTING	**Opening:** Paul Bertsch - Queensland Chief Scientist	
9:20-10:10 PAIRED PLENARY PRESENTATIONS	Chaired by: *To be announced*	
	"The pipeline that enables water models to deliver." *Tony Weber,* National Leader Catchment Modelling, Alluvium Consulting	**"How models can direct science and data needs."** *Mark Baird,* Team Leader, Coastal Biogeochemical Modelling, CSIRO
10:10-11:00 WORKSHOP	**"The Water Modelling Pipeline – what and where is your focus and engagement along the pipeline?"** *Dr Piet Filet,* Engagement Collaboration Specialist, International WaterCentre	
11:00-11:30 BREAK		

11:30-12:30 PARALLEL SESSIONS	Chaired by: *To be announced*	Chaired by: *To be announced*	Chaired by: *To be announced*
	WATER SECURITY **"Managing risks to water supply continuity and assets from climate change: integrating model outputs to inform and guide key decisions."** *Emma O'Neill,* Principal Policy Officer Sustainability, SEQ Water **"Groundwater management modelling and science."** *Sanjeev Pandey,* Executive Director, Office of Groundwater Impact Assessment, DNRME	**URBAN WATER AND LIVEABILITY** **"Securing the values of a water sensitive city through priority actions determined by monitoring and modelling."** *Anna Hollingsworth,* Catchment Co-ordinator, City of Gold Coast **"Determining key water metrics to design, evaluate and model urban infill options."** *Associate Professor Steven Kenway,* Research Group Leader, The University of Queensland	**LANDSCAPE RESTORATION** **"Building a strategic regional NRM plan."** *Lucy Richardson,* Senior Project Officer, SQ Landscapes **"How mathematical modelling can be useful to better define performance and restoration options for gullies."** *Dr Melanie Roberts,* QWMN Research Fellow, Griffith University
12:30-13:30 LUNCH			

13:30-14:30 PARALLEL SESSIONS	Chaired by: *To be announced*	Chaired by: *To be announced*	Chaired by: *To be announced*
	WATER SECURITY **"Sourcing water modelling data: what are new emerging options?"** *Arran Corbett,* Hydrographic Support Unit, DNRME **"Supporting climate adaptation planning in Queensland with high quality data and resources"** *David Putland,* Principle Policy Officer, Adaptation, Climate Change and Sustainable Futures, DES	**URBAN WATER AND LIVEABILITY** **"Real-time data capture for flood forecasting."** *Juliette Murphy,* CEO, Flood Mapp **"Communicating the future on climate change – connecting projections to adaptation action."** TBA - Queensland Fire and Emergency Services	**LANDSCAPE RESTORATION** **"Striking the right data needs for a model: simple vs complex in catchment and agricultural settings."** *Afshin Ghahramani,* Research Fellow, University of Southern Queensland **"Engage decision makers – focus on the user experience."** *Tory Grice,* UX Lead, Truii
14:30-15:00 BREAK			
15:00-15:50 PAIRED PLENARY PRESENTATION	Chaired by: *To be announced*		
	"Data Wrangling to enable water models." *Chris Dallimore,* Technical Director, HydroNumerics Pty Ltd	**"Building trust along the water model pipeline: communication for awareness and engagement."** *Angela Dean,* Senior Research Fellow, Institute for Future Environments, QUT	
15:50 – 16:45 PANEL	**"Communication along the water modelling pipeline."** *Panellists,* Stuart Bunn (Griffith University), Angela Dean (QUT), Stephenie Hogan (DNRME), Tony McAllister (Water Technology), Mike Foster (SEQ Water)		
18:00-21:00 QWMN FORUM 2020 NETWORKING DINNER (3-COURSES)			

DAY 2 – Thursday 27 February

8:15 – 9:00 REGISTRATION AND NETWORKING			
9:00 – 9:15 WELCOME	**"Day 1 snapshot and day 2 outcomes sought."** Dr Piet Filet and Dr Brian McIntosh, International WaterCentre		
9:15 - 10:05 PAIRED PLENARY PRESENTATIONS	Chaired by: *To be announced*		
	"Customers at the centre: linking observations, science and models for decision making." *Robert Argent,* General Manager Water, BoM	**"Water modelling sector advancements in Queensland."** *QWMN Team,* DES	
10:00-10:30 BREAK			
10:30-11:30 PARALLEL SESSIONS	Chaired by: *To be announced*	Chaired by: *To be announced*	Chaired by: *To be announced*
	DATA FUTURES **"Smart urban water systems."** *Professor Zhiguo Yuan,* Director, UQ Advanced Water Management Centre **"Remote sensing and water modelling – a 5-year outlook."** *Dr Tim J Malthus,* Research Group Leader, CSIRO - Oceans and Atmosphere	**ENABLING MODELS FOR DECISION MAKING** **"Prioritisation in reef restoration investment – the role of modelling inputs."** *Steve Skull,* Queensland Manager, Alluvium Consulting **"Connecting science, modelling and policy development in water planning."** *David Wiskar, Executive* Director, DNRME	**INTERACTIVE DEMONSTRATIONS** **"Urban water management tools."** *Chris Tanner,* Regional Manager, CRC WSC and *Luke McPhail*, Water Technology
11:30 – 12:30 PARALLEL SESSIONS	Chaired by: *To be announced*	Chaired by: *To be announced*	Chaired by: *To be announced*
	YOUR FUTURES ISSUES **"Open sessions based on self-nominated topic(s) shared at the conference on Day 1 – participants self-select."** *There will be 3 to 4 small groups meeting.*	**ENABLING MODELS – MODEL AND DATA GOVERNANCE** **"Alignment and collaboration efforts in the NSW Modelling and Monitoring Hub."** *Ed Couriel,* Director Manly Hydraulics Laboratory, DPIE (NSW) **"Harnessing professional communities for model development."** *Chantal Donnelly,* Unit Head of Water Investigations, BoM	**INTERACTIVE DEMONSTRATIONS** **"Data wrangling."** *Nick Marsh*, Managing Director, Truii
12:30 – 13:30 BREAK			

13:30-14:30 PARALLEL SESSIONS	Chaired by: *To be announced*	Chaired by: *To be announced*	Chaired by: *To be announced*
	CLIMATE AND HYDROLOGY FUTURES **"Impacts of climate change on river flooding in a subtropical Australian catchment."** *Rohan Eccles,* Australian Rivers Institute, Griffith University **"Coupling calibrated radar rainfall and distributed rain on grid modelling techniques to maximise the value of hydraulic simulations in rural and urban catchments."** *Tony McAlister,* Director, Water Technology **Alister Daly,** Group Manager Water Resources Water Technology	**ENABLING MODELS - CONNECTING AND INTEGRATION** **"Model evolution through improved and connected catchment processes resulting in finer scale water quality predictions."** *Paul Maxwell*, Science Director, Healthy Land and Water/Alluvium **"A Sunshine Coast waterways case study - adapting regional models to develop tailored local catchment targets"** *Graham Webb,* Aquatic Ecologist, Sunshine Coast Council	**INTERACTIVE DEMONSTRATIONS –** *Visualisation.* *Gavin Winter,* Visualisation and eResearch Manager, QUT
14:30-15:00 BREAK			
15:00 – 16:15 WORKSHOP	Chaired by: *To be announced*		
	"Shape the direction and future of QWMN post 2020." *Dr Piet Filet,* Engagement Collaboration Specialist, International WaterCentre		
16:15 – 16:30 WRAP-UP			

THE QUEENSLAND WATER MODELLING NETWORK (QWMN)

About

Since 2017, the QWMN have initiated a range of projects to improve the state's capacity to model its surface and ground water resources, including cataloguing major water models used by the Queensland Government, through to improving integration between agricultural and water catchment models.

The QWMN provides tools, information and collaborative platforms to support best-practice use of water models, and the uptake of their results by policy makers and natural resource managers. The QWMN also aims to build the capacity of the water modelling and use sector, encouraging engagement between modellers, end-users, researchers, among others.

The QWMN has identified four key strategic challenges for water modelling in Queensland in 2018-2020. These are:

1. climate change and variability (e.g. improving modelling capability to handle longer simulation periods)
2. landscape restoration and redesign (e.g. nutrient offset assessment methodology and tools)
3. water planning, integration and management (e.g. integration of urban models – catchment and point)
4. model management (e.g. treatment and communication of model uncertainty).

The QWMN also aims to build the capacity of the water modelling and use sector, encouraging engagement between modellers, end-users, researchers, among others.

Governance

The QWMN's overall strategic direction, operation, and delivery is managed and coordinated by the Queensland Government. The QWMN Core Group provides oversight of the Network's overall strategic direction. The QWMN Steering Panel has responsibility for overseeing and integrating QWMN's information and products, and for guiding its future direction.

In addition, a consortium of members, led by the International WaterCentre, is delivering a program of work that complements QWMN activities and investments to facilitate greater collaboration among water modellers, users and decision makers across Queensland, creating a community of water modelling excellence.

Key contacts

For more information on the aims, activities and published outputs of the QWMN, contact Jenny Riches, QWMN Program Manager, Department of Environment and Science, jenny.riches@des.qld.gov.au.

For more information on the External Engagement Program, contact Dr. Brian S. McIntosh, QWMN External Engagement Program Manager, International WaterCentre, b.mcintosh@watercentre.org.

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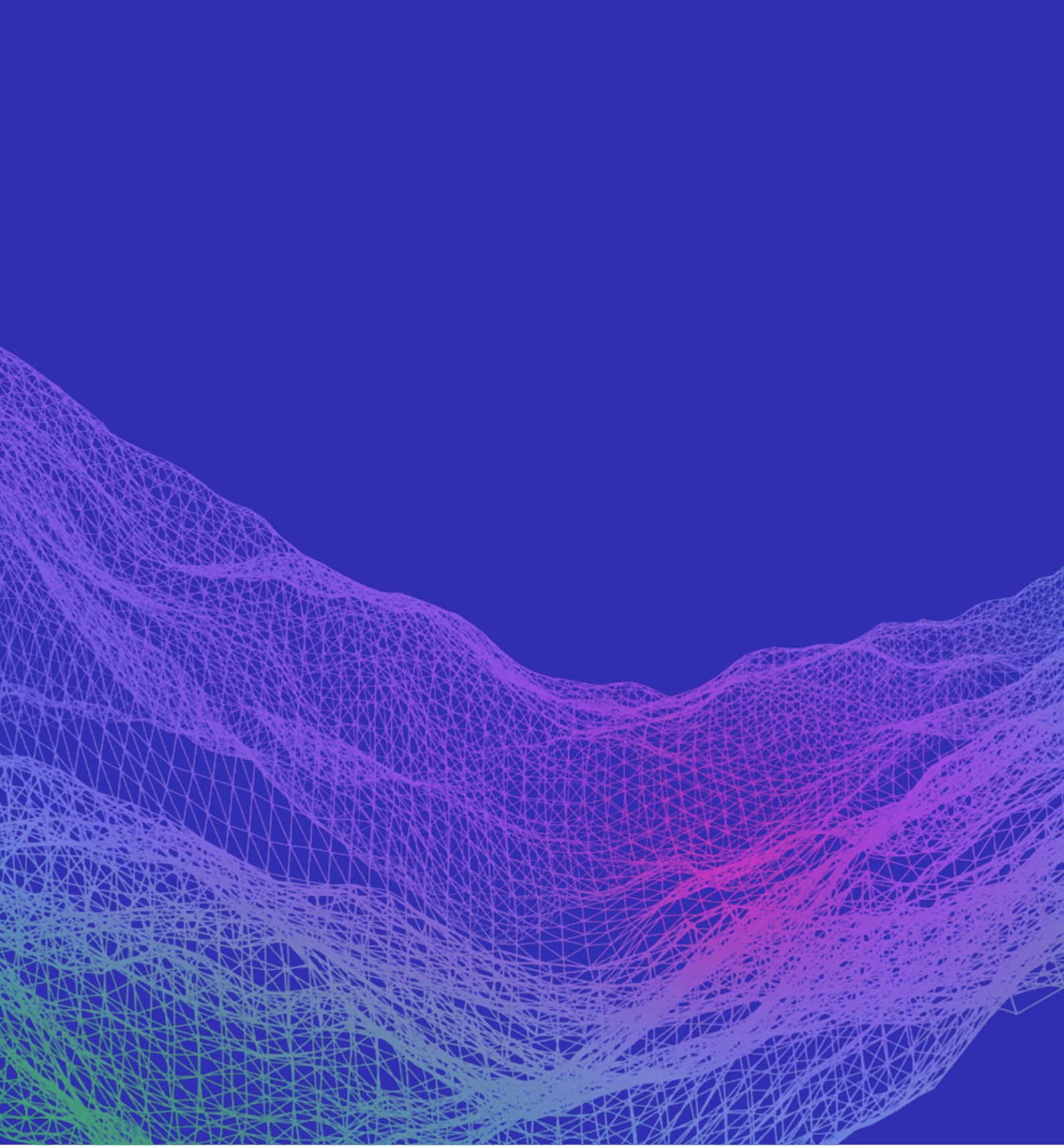

Queensland Government

Australian Government

Australian Institute of Marine Science

International WaterCentre

qcif

QUT

FLOOD community of practice

The University Of Queensland AUSTRALIA Create change

Griffith UNIVERSITY

University of Southern Queensland