



Modelling Group
WATER NEW ZEALAND

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Modeling Group Newsletter

The Water New Zealand Modelling Group e-Newsletter

Modelling Symposium 2021

by Wioletta Gilfoyle

Water New Zealand's Modelling Group held their annual symposium on March 10-11. Originally planned to be held in Christchurch, this was moved to a virtual format with less than two weeks' notice due to Covid Alert level changes. The organisers, presenters and attendees adapted well to this change of format.

The keynote speaker on Day 1 was Belinda Storey from Climate Acuity. She gave an excellent presentation on insurance retreat due to increased flood risk, as well as an update on planned research related to the impact of climate change on hydrology and therefore service levels. Guest speaker Dr Emily Lane from NIWA provided an update on the MBIE Endeavour research programme to produce a nationally-consistent flood inundation hazard map.

The papers presented at the conference covered a wide range of topics across three waters modelling, ranging from water network resilience, modelling corrosion potential in wastewater networks, through to various papers on urban stormwater and river modelling.

A workshop was held on the Water New Zealand led initiative to develop national stormwater modelling guidelines. Virtual break-out rooms were used to seek feedback from attendees on the proposed scope, as well as to understand what guidance is currently used, and the appropriate format for the proposed guidelines.

For many symposium attendees, one of the main appeals of the event is the chance to network with other modelling practitioners. The virtual format of the symposium did not stop networking opportunities – evening drinks were organised in main centres, with the Wellington attendees particularly committed and holding drinks on both nights!

Thanks to our sponsors – HAL, Jeff Booth Consulting Ltd, and Tuflow – for supporting this event!

WHAT'S NEW

STORMWATER MODELLING GUIDELINES

New guide coming soon

MODELLING SYMPOSIUM 2022

Save the dates

GUIDELINES FOR MODELLING WATER DISTRIBUTION

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FIONA MACDONALD PROFILE

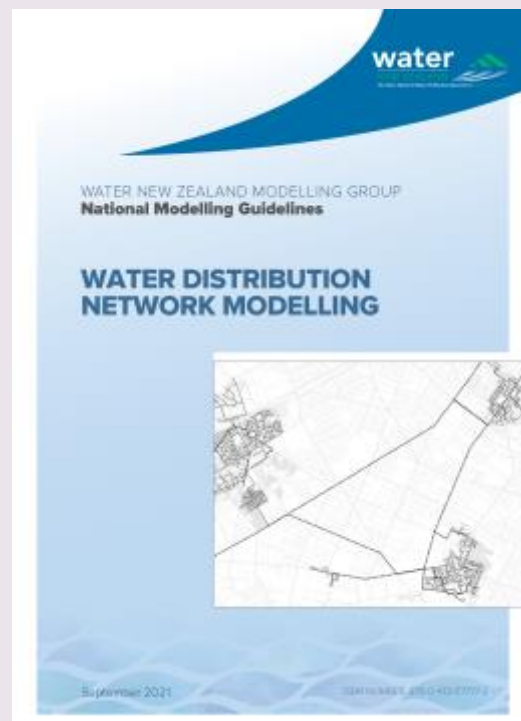
Get to know your
committee chair

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Guidelines for Modelling Water Distribution Systems



Stormwater modelling guidelines

By Peter Kinley

The Modelling Group has created a sub-committee to develop stormwater modelling guidelines, which will complement our water supply and wastewater modelling guidelines.

We have undertaken a couple of rounds of engagement with the wider modelling community. This has helped us to confirm the need for stormwater modelling guidelines and identify the scope of the guidelines. We put out a call for volunteers to help with the writing and got a good response, but we can always use more contributors so it's not too late to be added to the team.

So far, we have confirmed the structure of the guidelines, allocated volunteers to prepare drafts of the individual sections, and have started the introduction and scoping sections.

Our plan is to have a draft version completed in 2022.

This guide provides an overview of the stages involved and principles of "Good Modelling Practice", for people involved in undertaking and managing water supply modelling projects – managers, designers, operational and planning engineers, consultants, and others involved in the running of water distribution systems

Head to www.waternz.org.nz to view the guide.

Modelling Symposium 2022

16-17 March 2022
Wellington

Call for Abstracts now open

This year the Modelling Group will be celebrating 22 years of being in existence and the committee will be pulling together a diverse programme that covers the last 22 years as well as the future needs of modelling in the New Zealand water industry. Don't miss the opportunity to share your insights, projects, and learnings at Water New Zealand's Modelling Symposium. www.waternz.org.nz/News-and-Events/ModellingSymposium2022

Committee Member Profile

Fiona Macdonald (Chair)



What organisation do you work for and what is your role?

I work for Auckland Council's Heathy Waters department as Principal – Flood Risk. This role looks at flood risk across the Auckland Region, understanding the scale and nature of risk and informing future strategies to address it.

Tell us about your career background and how you got to this position/role?

I studied Engineering Science at university (essentially – applied maths with an engineering application, lots of computational and mathematical modelling). After graduating I was looking for a job in the environmental field and fell into the water team at a large engineering consultant. My background made me a fit to do hydraulic modelling, despite knowing nothing about water or civil engineering – I remember not knowing what a catchment was, nor knowing how to use a scale rule! I very much learnt on the job, starting off developing wastewater and stormwater models for Metrowater (Auckland City). After six years in Auckland, I moved overseas and worked in both Toronto and London in technical and management roles in consultancies. Back in Auckland, after a couple of years I decided the time was right to try life on the client side and moved to Auckland Council in early 2020. While my current role is not 'modelling' as such, it uses the information and insights developed by our modelling team to understand flood risk across the Region.

What has been your favourite modelling project and why?

In the UK I managed a pilot project for Thames Water that brought together a range of partners (Thames Water, the Environment

Agency, the local borough councils, and customers) to understand and develop a strategy for flooding issues in a part of NW London. The model was used to inform the root cause analysis, to truly understand what was causing the flooding issues and thereby to develop a solution that would actually resolve them. We moved the conversation from a blame game to a partnership approach. I enjoyed this because of the team I was working with – my technical team at MWH was outstanding, and the others in the partnership shared a real enthusiasm and drive to make a positive change for the community.

What's the hardest job you've ever done and why?

The aspects that stand out as hardest are not the technical ones but the people and management ones – managing teams is always challenging especially when objectives of schedule, profit and wellbeing conflict. The nature of my job in the UK meant I was reporting up to three different managers within three separate organisations, all of whom had conflicting objectives and priorities, and that was impossible to manage until I realised that you can never please everyone!

Why modelling?

Working in modelling has meant so much more than just 'modelling' – surveying, data management, hydrology and hydraulics, catchment planning and strategies, concept design, risk management, decision making processes, community and stakeholder engagement, working with the research community, project and team management, and more – every day is different and challenging but fundamentally it's about understanding what the issues and their root causes are, and working with others to find the best solution.

