

Modelling SIG News

VOLUME 1

September 2013

Trying something new

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The purpose of a newsletter is to provide specialised information to a targeted audience.

The Modelling Special Interest Group (SIG) has been talking about a newsletter for over a year and here is our first issue. We are keen to hear your thoughts on it and also what you would like to see in future editions.

Follow us online at:

http://www.waternz.org.nz/Category?Action=View&Category_id=214

Committee Member Profile Brian Robinson – Modelling SIG Chair



Brian is a Senior Civil Engineer with Aurecon and is based in the sunny Hawkes Bay, but undertakes projects throughout New Zealand and Australia. He has 12 years' experience in catchment management, urban drainage and flood management gained in New Zealand, Australia and the UK. He has specialist expertise in hydraulic modelling of wastewater, stormwater and combined pipe networks, ranging from model build and calibration through to options studies and development of infrastructure master plans. He also has undertaken river and open channel modelling, as well as design experience for pipe and pump station upgrades, flood alleviation schemes, and combined sewer overflow (CSO) structures.

Brian has been on the modelling SIG committee for 5 years, the last two of which he has been chair. His specific roles have included serving on the conference sub-committee, responsible for coordinating the modelling stream of the Water NZ annual conference, and marking abstracts, papers and presentations, as well as Wellington regional representative, responsible for organising regional events in Wellington.

Interested in joining the Modelling SIG committee?

The Chief Executive of Water New Zealand, Murray Gibb, gives notice for the call for nominations for election to the Modelling SIG Management Committee. The closing date for nominations is Friday 27 September 2013 at 5:00pm.

Members are elected for a two year term. Any financial member of Water New Zealand is eligible to join the committee; this includes individual, corporate additional and student members. We encourage members of organisations that provide water services to consider joining.

The committee holds monthly meetings by teleconference and it is expected that committee members attend these meetings and play an active role in enhancing our profile, fulfilling our portfolio requirements for our members and assisting Water New Zealand with its membership activities. It is expected that a time commitment of one hour per week would be required to fulfill the portfolio requirements.

The nominee, proposer and seconder involved in the process of nominating a person for a position on the Water New Zealand Modelling SIG Management Committee must all be financial members of the Association as at the closing date of nominations.

Nominations should be posted, faxed or emailed to amy.aldrich@waternz.org.nz, +64 4 472 8926, at Water New Zealand by 5:00pm on Friday 27 September 2013.

A copy of the official nomination form can be found here:

http://www.waternz.org.nz/Folder?Action=View%20File&Folder_id=139&File=Official%20Nomination%20Form%202013-2014.pdf

Recent Events

Bay of Plenty Modelling SIG Event

The WaterNZ Modelling SIG held its first ever Bay of Plenty branch meeting in Tauranga on the evening of Thursday 1st August. The meeting was hosted at Beca's offices who also kindly provided drinks and nibbles (more on that later). The meeting was well attended with around 25 people attending. These included water and asset engineers from Tauranga City and Western Bay of Plenty District Councils. Members of the Bay of Plenty Regional Council's river and drainage team travelled over from Whakatane for the evening. Local consultancy firms both large and small were also well represented.

The evening started with Mark Pennington briefing everyone on the possibility of developing rainfall and runoff guidelines for New Zealand (equivalent to Australian Rainfall and Runoff perhaps). The major stumbling block in NZ is funding. However WaterNZ have provided some funds for an initial gaps analysis type review of what is out there already and what is needed. Mark hopes that this first stage will be commenced soon with NIWA likely to undertake the work.

Following this, two very interesting talks were given:

"Modelling on the edge: Post-earthquake stormwater modelling in east Christchurch" by Mike Law, Water Resources Manager, Beca, Christchurch and

"Making Renewal Investments with Confidence – a Robust Decision Support Process for 3 Waters Reticulation Networks" by Theuns Henning, Senior Lecturer, University of Auckland.

Mike talked about the challenges of modelling in post-earthquake Christchurch both in terms of data, but also in terms of meeting the shifting demands of Council and balancing the needs of accuracy, costs and speedy delivery. Theuns caused much discussion with the asset managers present who were very interested in his ideas.

After the formal presentations further informal discussions continued into the evening lubricated by beer supplied by Beca. All engineering problems and indeed all the problems of the world were about to be solved, when unfortunately our host Ian Garside, needed to bring proceedings to a close so that he could go home. So John Key & Barack Obama your jobs are safe for now ... at least until the next Waikato / Bay of Plenty meeting of the WaterNZ Modelling SIG.

If anyone has any ideas speakers or topics for the next meeting please contact Robert Kelly at Aurecon - Robert.Kelly@aurecogroup.com

Modelling SIG presentation if available can be found here
http://www.waternz.org.nz/Category?Action=View&Category_id=304



Robert Kelly

Innovyze Water Industry Modelling Conference Brisbane



Louisa Sinclair

The Innovyze Water Industry Modelling Conference was held in Brisbane on the 4 and 5th September. The conference had around 60 delegates with 11 from New Zealand. Presentations from New Zealand included Wellington City Council, Dunedin City Council, SCIRT and Opus.

From the Modelling SIG committee Jeff McLean presented on Christchurch City Water Supply Rezoning, Andy Gibson presented on Optimisation of the Christchurch wastewater network using risk based cost reduction strategies and I presented on 3 waters modelling at Dunedin City Council.

More details including presentations and photos can be seen here:
<http://www.asiapacificwater.com/>

Recent Events continued

Wellington Modelling SIG Event

The Water New Zealand Modelling SIG held a get together and presentation session at the Aurecon Wellington office on 9 September 2013. The 18 attendees presented a good cross section of the water industry with representatives from consultancies, local and regional authorities, water network management, infrastructure delivery alliances and statistical analysis firms. Presentations were delivered to a high standard and with a level of enthusiasm that reminded everyone in attendance just what it is that makes modellers modellers.

The first presentation was delivered by James Flanagan and Susan Borrer from Greater Wellington Regional Council on Modelling rivers at Greater Wellington Regional Council. Susan explained the systems, tools and processes that she uses as a hydraulic modeller at GWRC to build models and make information available to other stakeholders. James expanded on this with a case study on the application of this model data to determine floodplain management requirements for the Waiohine River and the mitigation of its flood effects on Greytown.



The second presentation of the evening was from Tom Joseph of AWT on using models to determine pipe criticality in water supply networks. He explained the approach that he used in modelling Porirua City Council's water supply in relation to their firefighting capability and water supply requirements. It was interesting and informative to see the effect of individual partial pipe breaks on the water supply network as a whole, and at the individual hydrant level. It was clear that a lot of work had been done to understand the system, and to determine what was happening at every fire hydrant in the network, when considered both individually, and collectively. Tom presented with a high level of enthusiasm, reinforcing the passion within the industry for what we do.

The evening was well rounded with drinks, nibbles and the chance to socialise with other people with like-minded areas of expertise and interests.

Thanks must go to the presenters, James Flanagan, Susan Borrer and Tom Joseph, for their time and effort in making the evening a success. Thanks also to Aurecon for providing an excellent venue for the evening and refreshments.

Hopefully we'll see everybody again in November for the end of year get together. If you have any ideas for topics or speakers for next time please contact Marty Simpson at WCC - Martyn.Simpson@wcc.govt.nz Here are some photos from the event.

1. Tom explaining the components of fire flow determination
2. Brian Robinson introducing the first presentation
3. James pointing to the effect of flood protection works



LinkedIn

You might have seen an invitation to join the Modelling SIG in LinkedIn. With technology and the way we communicate changing the Modelling SIG is keen to keep up with the most recent trends.

We have not yet looked at twitter, but that time might come.



Water New Zealand Modelling Special Interest Group
Private Group

Upcoming Events

Water New Zealand's Annual Conference & Expo - Hamilton



CHANGING CURRENTS
2013 WATER NEW ZEALAND'S ANNUAL CONFERENCE & EXPO
Claudelands Event Centre, Hamilton 16-18 October

	Modelling <i>Chair: Brian Robinson (BROOKLYN 1)</i>
11:00am	Melbourne Water The Modelling Journey in Victoria <i>Keynote Speaker – Simon Pearce-Higgins – Melbourne Water</i>
11:30am	Strategic Framework for Water Model Development <i>Keith Woolley</i>
12:00pm	Dynamic Modelling of Pressure Sewerage Systems <i>Gavin Hutchison</i>
12:30pm	
	Modelling <i>Chairs: Brian Robinson & Louisa Sinclair (BROOKLYN 1)</i>
2:00pm	Modelling SIG AGM
2:30pm	Trials and Tribulations of Modelling a Small Urban Water Supply <i>Vicki Koopal</i>
3:00pm	Innovative Approach to Fire Flow Assessment for the Christchurch Water Supply Rezoning <i>Jeff McLean</i>
3:30pm	
	Modelling Workshops <i>Chair: Jeff McLean (BROOKLYN 1)</i>
4:00pm	Workshop Water Service Providers Perspectives on Modelling Resources <i>Louisa Sinclair & Emily Botje</i>
4:30pm	Research Topic Development of NZ Rainfall Runoff – An Update from the Steering Group <i>Mark Pennington</i>
5:00pm	Workshop Follow up on WaPUG Ideas from 2012 <i>Andy Gibson</i>

Modelling Stream 2013

This year we have made a significant change to the modelling stream by choosing to run over one day instead of two days as in past years. Our major driver for the change has been how modelling has grown up in the water industry and is now a normal part of a wide range of decisions, meaning modelling is of interest to a wide range of professionals outside of modelling specialists. To support the wider view of modelling in New Zealand, we have encouraged presenters of modelling papers with a broad focus to be part of the main conference, with the more technical papers part of the modelling stream.

The schedule for this year begins with our keynote speaker Simon Pearce-Higgins from Melbourne Water speaking on the modelling journey in Victoria. Some things they do very well in Australia, and we should get some interesting lessons from the Victorian experience.

We have four technical papers, covering model governance, pressure sewers and fire flows and small water supplies. The last session of the day has three workshops, covering the local authority experience of having in-house modelling experience, an update on NZ rainfall-runoff guidelines, and a follow up from the ideas presented from our workshops with our keynote visitors from WaPUG in 2012. The day session will be followed by the modelling dinner at Rebo restaurant at SkyCity, where prizes for the best modelling paper and best presentation within the modelling programme will be made.



Jeff McLean

Stormwater Conference

Following a successful conference in Auckland in May the Stormwater Committee has locked in the Rydges Hotel, Christchurch as the location for the 2014 Conference. More details to follow.

Next Newsletter

Please let us know your thoughts on this newsletter.

Do you have an interesting project to share with other modellers? Is there something specific you would like to see in future issues?

All feedback welcome – louisa.sinclair@dcc.govt.nz