

# NSW Water Modelling Community of Practice Highlights 2023

Establishing a technical community for engagement and collaboration on water modelling amongst NSW government organisations.



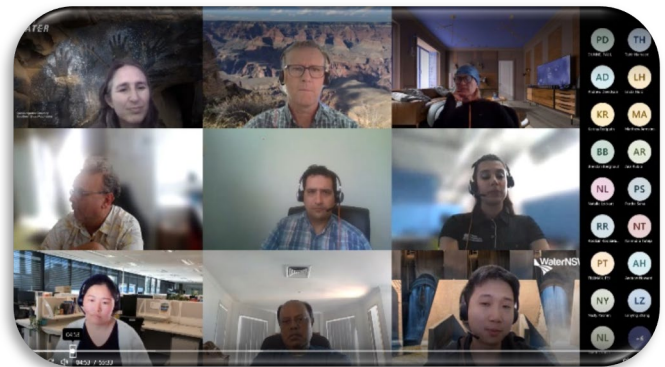
## Getting started

The *NSW Water Modelling Community of Practice* was developed as an initiative of the NSW Water Modelling and Monitoring Hub (MaMH). Attendees at the 2021 MaMH annual forum identified the need for a community of practice with a technical focus on water modelling. An initial start-up group from MaMH member organisations surveyed their organisations to develop three focus streams, namely *hydrology*, *hydraulics* and *groundwater*, and agreed terms of reference to guide community organisation.

## Modelling knowledge sharing

In May 2022, the community of practice launched a series of online knowledge sharing meetings each focussed on the three modelling streams of hydrology, hydraulics and groundwater.

Four online knowledge sharing meeting series have been run, attracting more than 140 participants across each series. The meetings run in workshop style and cover a range of focus topics by lead modellers, question and answer forums, live polls and group discussion led by stream moderators from each organisation.



Hydrology modelling stream meetings have focused on climate change in hydrological modelling, rainfall runoff modelling and handling model uncertainty.

Hydraulics modelling stream meetings have addressed new model developments and innovations, realtime hydraulic modelling for decision support and modelling complex losses and operations.

Groundwater modelling stream meetings have presented various case studies including the *Tomaree Sandbeds Groundwater Model* and the development of the *Draft NSW Groundwater Strategy*.

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## An online platform to collaborate

The community of practice online Yammer page was developed to further support collaboration between community members. The online platform allows community members to get in touch and collaborate with fellow water modellers across NSW agencies, join in online polls and discussion, keep informed regarding community events, access past meeting recordings and material, share knowledge, ask questions and post water modelling news. The community Yammer page currently has over 200 members.



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## Community events

Manly Hydraulics Laboratory hosted the community's combined stream meeting networking event in June 2023. The event brought together around 70 water modellers (45 in-person) across various NSW government organisations to showcase the breadth of water modelling work being performed, discuss measurement uncertainty principals, participate in a live flow measurement demonstration, tour MHL's new physical modelling facilities and network over lunch at Manly Dam.



The event provided a great opportunity for water modellers to get to know each other and form connections. One participant commented:

*"I dialled into the event yesterday and it was most informative.... It is so important for modellers and those using the outputs of modelling to understand the uncertainty inherent in any modelling activity. Certainly, I would recommend regular insights from this domain in further workshops."*

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## The future

The community of practice has proved there is interest amongst members to collaborate and share knowledge on water modelling. A foundation has been formed for the community to mature and grow in terms of numbers, knowledge and connections across the water industry. The face to face event was very successful in getting to know others and share knowledge.

Future community of practice goals include:

- promote the use of the online platform to enable discussion of technical challenges and successes in between meetings
- rotate leadership roles to keep reshaping the community of practice
- work through community priority topics which currently include low flow gauging challenges for model calibration, surface water and groundwater interactions, water modelling capabilities and professional development.
- present and share community learnings at the MaMH Forum 2023
- a community of practice field trip.

The community of practice welcomes interested government staff. Please contact the [NSW Water Modelling and Monitoring Hub](#) for more information on the knowledge hub and this community of practice.