NSW Climate for Water Modelling Community of Practice Highlights 2024

The NSW Climate for Water Modelling Community of Practice facilitates engagement and collaboration on climate for water modelling across NSW government organisations.

Background

The *NSW Climate for Water Modelling Community of Practice* was developed as an initiative of the NSW Water Modelling and Monitoring Hub (MaMH). Based on feedback from the *NSW climate change: modelling and application workshop* delivered at the 2023 MaMH Forum, it was identified there was significant demand for the establishment of a community of practice focussing more on the implications of climate change. The Climate for Water modelling stream was subsequently developed and agreed terms of reference to guide community organisation.

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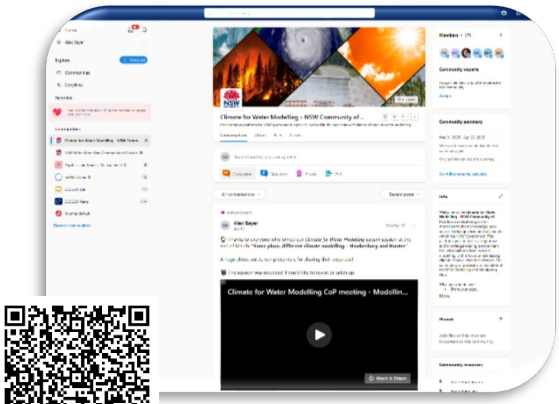
MHLPF23/78 | TMP-MC-SD-V1.2

An online platform to collaborate

The Climate for Water Modelling Community of Practice online Viva Engage page was developed to further support collaboration between community members. The online platform allows community members to get in touch and collaborate with colleagues across NSW agencies, participate in online polls and discussion, keep informed of community events, access past meeting recordings and material, share knowledge, ask questions, and post climate for water modelling news. The climate for water modelling Viva Engage page currently has over 370 members.



bit.ly/nsw_climateforwatermodelling

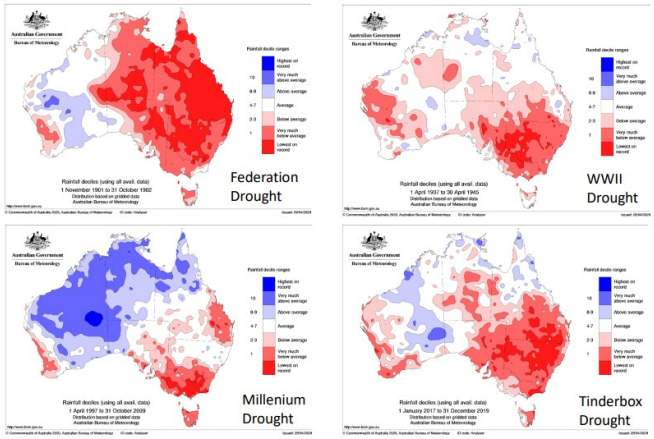
Events

NSW climate change: modelling and application workshop – 2023 MaMH forum

On 8 November 2023, a workshop was held at the MaMH Forum that proposed a climate for water modelling Community of Practice. This session was attended by over 90 people, and included the following four presentations:

- *DCCEEW Water climate work program*, presented by DCCEEW Water;
- *The proposed climate change for water modelling community of practice*, presented by DCCEEW Water;
- *Review of NSW rainfall drivers*, presented by Dr. Danielle Udy (Alluvium/University of Tasmania); and
- *Stress-test water resource systems under change using stochastic modelling,* presented by Dr. Michael Leonard (University of Adelaide).

The presentations were followed by interactive Q&A sessions, facilitated through Slido, and a Panel discussion.



Technical presentations

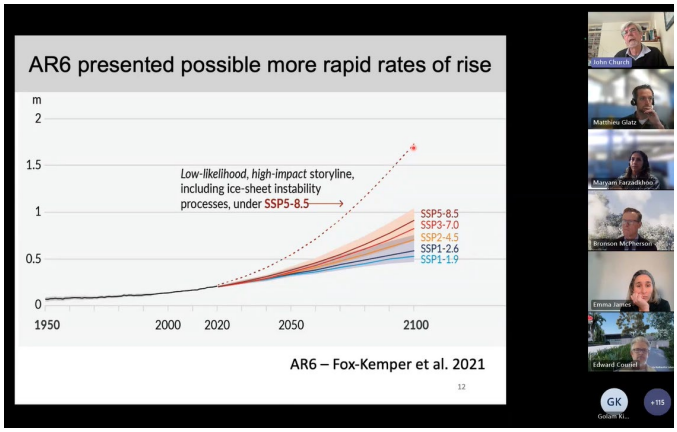
In 2024, the community of practice ran two online knowledge sharing meetings (April and September 2024). Recordings of these sessions can be accessed by members via the Viva Engage SharePoint Library.

The inaugural meeting on 9 April 2024, attended by over 80 participants, addressed the topic of how and why each agency is looking at climate for water modelling. Each agency delivered a short overview presentation on the how climate for water modelling is respectively applied. These presentations were followed by a group discussion.

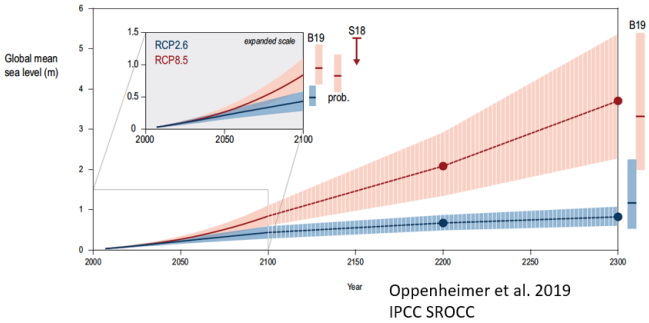
The second meeting on 13 September 2024, attended by over 125 participants, addressed the topic of sea level rise research and implications. The meeting included three presentations:

- *Some Personal Thoughts on Recent Sea-level Research and Its Implications,* presented by John Church (UNSW, Climate Change Research Centre);
- *Saltwater Intrusion in Estuaries due to Sea Level Rise and the Impacts on Water Users,* presented by NSW DCCEEW; and
- *Use of SLR in Flood and Coastal Studies,* presented by MHL.

The presentations were followed by group discussion.



Sea-level Rise will continue well after 2100, in all scenarios.



Community event

A face-to-face event was held at Warragamba Dam linked to the MaMH forum in November 2024. This event was an excellent opportunity to strengthen our climate for water modelling networks, hear technical presentations from peers, and see demonstrations of monitoring technologies such as:

- *Greater Sydney catchment and lake water quality modelling to inform operations* (WaterNSW)
- *Monitoring of water quality and quantity to support operations* (WaterNSW)
- *Water from Warragamba: Sydney Water Corporation's story* (Sydney Water).

The future

The community of practice has proved there is interest amongst members to collaborate and share knowledge on climate for 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. An overview of the community of practice's activities was presented at the MaMH Forum 2024.

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; and
- present and share community learnings at the MaMH Forum 2025.
- Introduce discussion-based workshops encompassing all water related government organisations

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.