



Background on the knowledge hub

The NSW Government established the NSW Modelling and Monitoring Knowledge Hub (MaMH) in 2018 to assist with effective water management in NSW. The hub allows selected government agencies and state-owned corporations to share knowledge and collaborate.

Six government organisations formed the inaugural MaMH working group. Since this initial collaboration some of these organisations are now part of the same cluster. The working group includes representatives from:

- Department of Planning, Industry and Environment, Environment, Energy and Science Division
- Department of Planning, Industry and Environment, Planning and Assessment, Local Government and Regional Planning
- Department of Planning, Industry and Environment, Water Group, Manly Hydraulics Laboratory
- Department of Planning, Industry and Environment, Water Group, Water Analytics
- Sydney Water
- WaterNSW.

In the first year of the Knowledge Hub, two foundation projects were delivered, an overview of water modelling and water monitoring information, and collaboration tools used in NSW. The findings from these projects can be found at [MaMH](#). Based on these studies, it was found that:

- Multiple NSW organisations rely on many different water models and water information sources due to lack of effective collaboration
- Resourcing and funding are identified as the top two obstacles to collaboration
- Modelling skills and capacities vary across organisations. This presents opportunities to share knowledge and develop consistent processes to ensure that modelling outputs are fit for purpose
- There are existing NSW Government platforms that could allow us to share¹ water models and monitoring information such as [SEED](#), [Spatial Collaboration Portal](#) and the [NSW Flood Data Portal](#).

¹ *Open data* has unrestricted public access whereas *shared data* is only available to defined groups under agreed terms.

Achievements for 2019-20

- Knowledge sharing forum
- Water Information Sharing Pilot - *Spatial Collaboration Portal*
- Water Model Metadata Sharing Case Study.



Knowledge sharing forum

MaMH Forum

The MaMH Forum brought together 60 attendees from water related government teams to share learnings from first-year projects, participate in workshops highlighting best practice collaboration examples and to hear from industry leaders.



Participants had the opportunity to engage with and hear from DPIE Water Deputy Secretary, Jim Bentley. In his opening address, Jim spoke passionately about the importance of networking and modelling, with a focus on the importance of collaboration to drive key decisions.

The emphasis was on the need to capitalise on our “Parenting Advantage” to maximise public value through collaboration within the water sector.



Water Information Sharing Pilot

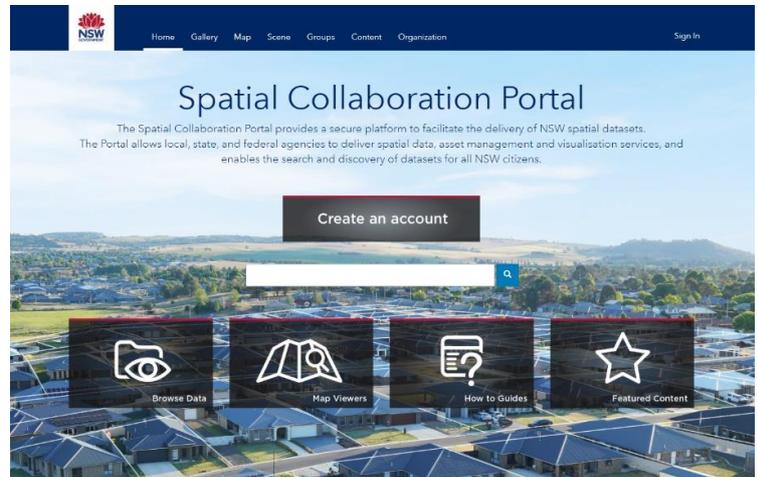
Spatial Collaboration Portal study

The Spatial Collaboration Portal has been established by NSW Department of Customer Service's, Spatial Services team to allow information to be discovered and shared. It's ability to spatially incorporate and share² metadata across organisations sets this innovative tool apart from other current tools.

A pilot study was conducted to test the capability and to discover and share water information in selected areas in NSW. The study found that the tool enables different departments to:

1. Discover information metadata, data quality and agreements
2. Share models
3. Share near real time-series water information
4. Use as a data repository for organisations with small amounts of data.

Member agencies have participated in portal demonstrations for an overview on how to use the technology.



Findings

The pilot found that the Spatial Collaboration Portal is a viable option for sharing data within NSW Government. MaMH members have endorsed its use for water information across NSW Government.

Next steps

The MaMH is now working closely with its members, to overcome barriers and implement a whole of government solution to ensure data is discoverable and improve access to water information.

² Water metadata and monitoring data can be made available as *open data* with unrestricted public access or as *shared data*, which is only available to defined groups under agreed terms

Water Model Metadata Sharing Case Study

North-Western Sydney

Several different water models are in use across multiple organisations in the North-Western Sydney region, with limited ability to directly interact.

This case study developed a water model geodatabase containing discoverable and searchable metadata for over 50 water models in the study region, with representation from nine different government organisations (local and state government). It applied the geodatabase in the *NSW Spatial Collaboration Portal*.

The NSW water model geodatabase developed in the case study, has enabled:

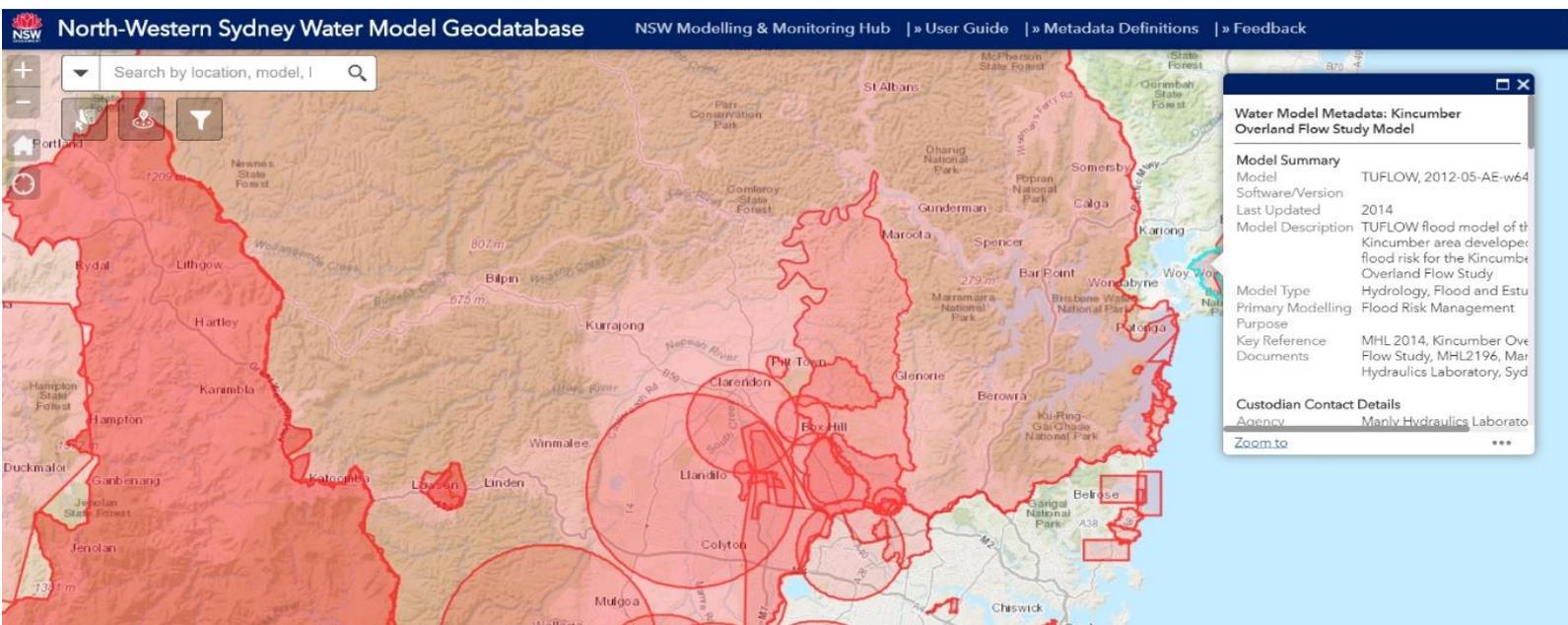
- A central point of documentation for search and discovery of water model metadata for government planning
- Shared understanding of water models and collaboration between organisations
- Improved strategic analysis of NSW government's water modelling assets and investments.

Findings

The ability to have a spatially searchable model geodatabase, that combines other water information sources, provides significant opportunities for collaboration across the State.

The MaMH members have endorsed the use of the NSW Spatial Collaboration Portal as a suitable platform for the discovery and sharing of water model metadata. In the long term, MaMH members will help manage and share water models they used with this platform.

This case study demonstrates water sharing opportunities, assets analysis, impacted and growth areas, and has identified more opportunities for further use of the portal.



Looking ahead 2020-21

MaMH will continue to play a key role in supporting effective water management in NSW and building collaboration through ongoing knowledge sharing.

Our goals for 2020-21 include:

- Development of funding estimates and business cases for water information (data and models) collaboration within the *NSW Spatial Collaboration Portal*
- Developing the application and methodology of agreed principles for water modelling and monitoring information sharing between government organisations
- Establishing and adopting standard water industry guidelines and workflows using the *NSW Spatial Collaboration Portal*.

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