



In this issue we take a look at the issue of managing the ever-growing volume of flooding datasets within an organisation, and ensuring that the datasets are preserved and readily usable.

We have also finalised our [FY20 group training schedule](#). The next session kicks off in Sydney in October, 2019.

Flooding Data Management – A Single Point of Truth

Flooding datasets are huge.

When multiple ARI's (eg 2yr, 5yr, 10yr, 20yr, 50yr, 100yr, 200yr, 500yr and PMF) are combined with multiple durations (eg 1hr, 2hr, 3hr, 6hr, 9hr, 12hr etc) and multiple scenarios (climate change, blockage, mitigation options etc) information volumes for a single flood study quickly become overwhelming.

Compounding the problem is the fact that a flood study is really only a "point in time" dataset, valid for the catchment conditions simulated at the time the model was developed.

Over time, new models are developed (to reflect updated catchment conditions, better modelling approaches, better base elevation data and a host of other reasons), creating even more data.

As the sheer volume of data increases its usability rapidly reduces, potentially leading to misinterpretation and incorrect information relied upon by the community.

As part of recent project work, we have developed a framework to help authorities maximise the usability and quality of their datasets, integrating the various components of flood data management and usage including:

- Governance, quality and metadata
- Dataset receipt and tracking
- Rollback, decision and "point in time" data history (legal challenges)
- Archiving
- Data searches
- Management of study overlap and consistency
- Data updates vs dataset replacement
- Structured information distribution (internal and external)
- Usability and drill-down detail for differing end user needs

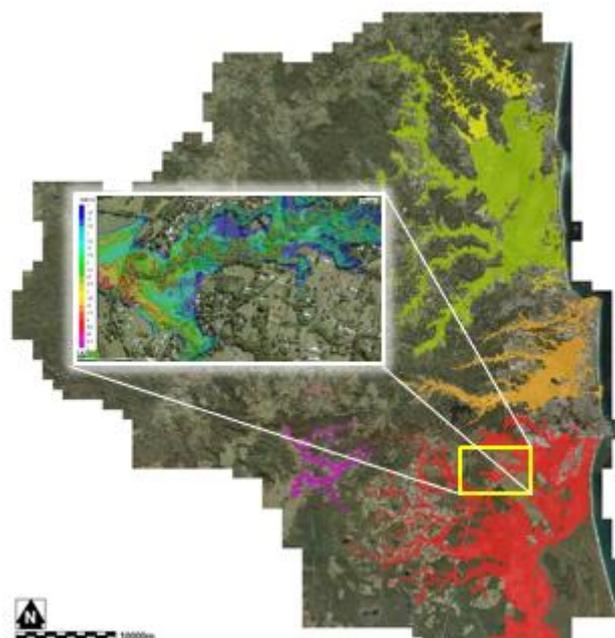
At the core of this framework is the concept of a *Master Grid*.

The Master Grid is a "single point of truth", merging *all* flooding datasets for a given ARI (eg the 100yr) into a single, seamless and coherent data source for use across an organisation.

Any interpretation of the base flooding datasets, including management of inconsistent detail, overlap, anomalies, "waterfalls" and the like is burnt into the Master Grid, thereby

ensuring that anyone using the datasets is working from the most current, quality controlled information available.

As changes to underlying datasets are made, the Master Grids are updated, older versions archived, and the current version published.



Master Grid showing the source of flooding information.

Effective utilisation of local and cloud storage allows these master grids to be accessed through time, providing key details as to why certain decisions were made at specific points in time.

A case study on the development and implementation of the Data Management framework was presented at the recent Floodplain Management Australia conference, which can be accessed [here](#).

waterRIDE™ Data Manager will be released as a key part of our next major release, waterRIDE™ 10 in the coming months.

If you have any questions or would like to know more, please feel free to contact us.

waterRIDE Group Training

Dates have been finalised for FY20. The next sessions are:

- Sydney: 22nd – 24th October, 2019
- Brisbane: 28th/29th November, 2019
- Auckland: November, 2019 (TBC)

Full details are available [here](#).



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