



Australian Government  
Bureau of Meteorology

## **Second submission to the Senate Select Committee on the Multi-Jurisdictional Management and Execution of the Murray Darling Basin Plan in response to the Issues Paper**

The Bureau of Meteorology (the Bureau) thanks the Committee for its invitation to make a further submission in response to the Issues Paper released by the Select Committee on the Multi-Jurisdictional Management and Execution of the Murray-Darling Basin Plan. The Bureau welcomes the opportunity to briefly expand on its first submission, particularly relating to questions around the adequacy of information.

Under s120(a) of the *Water Act 2007* the Bureau is responsible for gathering, holding, managing, interpreting and disseminating Australia's water information. The Bureau collects around 15,000 data files a day from nearly 200 providers. Over the last 12 years the Bureau has invested in processes to automate data transfer and ease regulatory burden on providers, developed standards to ensure information is communicated in common units and language, and built portals to disseminate this data to the public.

Additionally, the Bureau publishes a range of water insight and assessment products to interpret and make data accessible. These products include the Water Storages web-based dashboard and mobile phone application; Water Markets dashboard; monthly reports on rainfall, streamflow, salinity and water storage for each major drainage division, including the Murray-Darling Basin; portals showing multi-year trends in groundwater levels and streamflow volumes; and bespoke reports on significant hydrological events.

The Bureau also publishes annual reports including the National Water Account, the Australian Water Markets Report and the National Performance Report on urban water utilities, which provide consistent analysis of water information for the current and previous years. Recently, the Bureau has commenced publishing fortnightly water summary reports for catchments in the Murray-Darling Basin. Currently reports are published for eight catchments, but this will be expanded to cover the whole Basin by the end of April 2020.

These reports describe how much water is available in each catchment's storages and the percentage allocated to each use (i.e. towns, domestic and stock; consumptive industries; the environment; reserves for future years; water committed under intergovernmental agreements; and estimated losses from storages and rivers to evaporation and seepage). The reports also provide information on recent rainfall and longer-term rainfall trends to give context to current water availability. These summary reports provide a single point of information and are the precursor to a single portal for the whole Murray-Darling Basin being developed over the next three years.

In addition to measurements of water in rivers, aquifers and storages, the Bureau provides modelled information to support public understanding of the location of water in the landscape. The Landscape Water Balance estimates soil moisture, evaporation, runoff and deep drainage to groundwater across the continent, providing a national picture of water in the landscape including in areas where there are few or no water measurements. The Landscape Water Balance models conditions back to 1911, which is well beyond most water measurements. This allows an understanding of changes to water availability over long time frames.

Water forecasting services are also available at key locations across the country. These services combine the Bureau's weather and climate forecasts with hydrological models to



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provide volumetric predictions of streamflow for the next seven days and the next three months.

There is a large volume of information available, and the Bureau seeks to continually improve its currency and accessibility.