Australian Government
Bureau of Meteorology

INFORMATION SHEET 3

Water Information
DATA › INFORMATION › INSIGHT

The Australian Water Resources Information System

In order to deliver the high quality, national water information essential to effectively manage Australia's scarce water resources, the Bureau of Meteorology is developing the Australian Water Resources Information System (AWRIS). AWRIS is an online information system that will collate information about river flows, groundwater levels, reservoir storage volumes, water quality, water use, water entitlements and water trades from more than 200 water data sources across Australia.

AWRIS will enable water managers to answer vital questions such as:

- How much water is available in different parts of the country today and how that compared with the past?
- Who is entitled to use water and how much are they using?
- How much water is being allocated and how is the security of particular water entitlements changing?
- How much water is being traded and to where?
- How much water is the environment getting?
- How much water is being intercepted by farm dams and land management changes?
- How is flood risk changing in response to climatic and land management changes?
- How is water quality in our rivers and aquifers changing?

By providing improved insights into the status of our water resources, AWRIS will assist urgently needed water reform.

AWRIS will deliver robust and reliable nationwide information on water availability, water quality, water usage and water markets.

Enhancing the value of water information

Through the AWRIS project, the Bureau will add significant value to water data collected nationwide by over 200 organisations. The Bureau is co-investing with State agencies to improve the accuracy, coverage and currency of water information. We are also working with the States to establish consistent data collection, management and transfer standards. This will contribute to improving the utility and reliability of water data. Data collated by the Bureau will be quality checked, harmonised and value-added via a range of water information products

AWRIS will improve the quality and value of water information available to governments, business and the community.

Water information for users

A variety of water information products are being developed to satisfy the needs of a range of uses and users. AWRIS will contain data, dashboards, reports and forecasts that will improve decisions made by people engaged in water policy development, planning, operations, public enquiry, education and research.

AWRIS information products will include:

- a water data download service
- regular national water resources assessments
- an annual National Water Account
- real-time water reporting services
- real-time water availability forecasts
- support for flood design.

The Australian Water Resources Information System

www.bom.gov.au/water

Meeting AWRIS user needs

Developing AWRIS requires extensive collaboration between stakeholders. The Bureau is consulting with water information users to understand their requirements. Expert panels and advisory committees have been established to advise on technical issues.

Some of the benefits that end users of AWRIS will enjoy include:

- national data coverage and common national standards—AWRIS will enable benchmarking through access to consistent, national water information, presented in a stable, repeatable format
- access to timely and related water data—data will be delivered and quickly processed within AWRIS. Integrated views of diverse water data sets such as rainfall, water storage levels and water restriction information will be possible, enabling a holistic view of our water resources
- quality-checked information offering a high level of transparency—users will be able to readily verify the source of data presented, understand how it was derived, and read the full documentation for any quality control processes applied to enhance the supplied data. This will reduce the time needed for sourcing and checking data and leave more time for analysis, forecasting and modelling.

Delivering AWRIS

The Bureau will build, own and manage AWRIS.

Over a ten-year period, AWRIS will evolve and expand, enabling the Bureau to deliver more content, faster access and more sophisticated functionality.

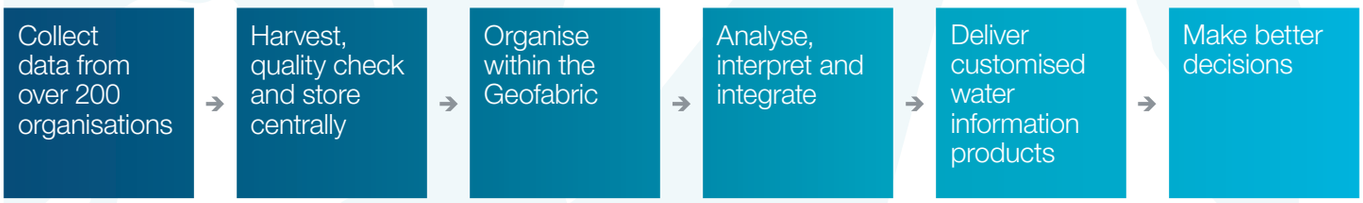
The first phase of AWRIS is focused around a two-year, $10 million project funded by the National Water Commission's *Raising National Water Standards* programme. Phase One of AWRIS will come into operation by early 2010.

Spatially enabling water information

Spatially enabling Australia's water data will greatly increase its utility value. AWRIS will be underpinned by the Australian Hydrological Geospatial Fabric (Geofabric), which will help us to account for water as it moves through the landscape between areas, uses and users. The Geofabric will describe the connections between most of Australia's hydrological features, including rivers, dams, lakes, aquifers, diversions, supply channels, drains and monitoring points.

The Geofabric will enable powerful interrogation, analysis, modelling and reporting of water information. During the initial development of AWRIS, the Geofabric will be populated with existing spatial datasets from across Australia. Future development will expand and improve the coverage, resolution and richness of the spatial data embedded in the Geofabric.

AWRIS will enhance the value of water information for users and contribute to better decision-making



For more information

For more information about AWRIS and the Bureau of Meteorology's new role in water information please visit our website at **www.bom.gov.au/water**

Visitors can also subscribe to receive regular email updates.

Initial development of AWRIS is funded under the National Water Commission's *Raising National Water Standards Program.*

Australian Government
National Water Commission

Other fact sheets in this series include:

- Transforming Australia's Water Resources Information
- The *Water Act 2007* and Water Regulations 2008
- The Water Information Research and Development Alliance (WIRADA)