



# Improving Water Information

Water security is one of Australia's major challenges. To meet this challenge we must accurately monitor, assess and forecast the availability, condition and use of our water resources.



**Australian Government**  
**Bureau of Meteorology**

# Our water information role

## Working with water managers

The Australian Government has given the national weather and climate agency—the Bureau of Meteorology—responsibility for compiling and disseminating comprehensive water information.

Water information is currently collected and held by more than 200 organisations across Australia for their own business needs. Under the *Water Act 2007* and the *Water Regulations 2008*, the Bureau is working with water managers across Australia to deliver high quality, national water information to government, industry and the community.

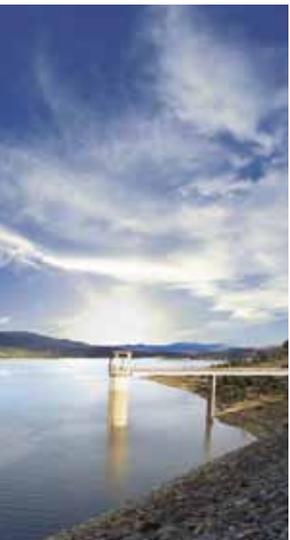
## How will water information improve?

For the first time, water data for all states and territories will be presented in a common way. The Bureau will use this data for new reporting, data and forecasting products and services that will assist water managers and policy makers to make better decisions on how to use our most valuable resource.

## What does water information tell us?

Water information will be used to answer questions such as:

- How much water is available in different parts of the country today and how does this compare 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 will be available in the coming days, weeks, months and seasons?
- 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 the quality of water in rivers and aquifers changing?



*Photographs by Lynton Crabb*

# Water information foundations, products and programs

The Bureau's *Improving water information* program is built on our authority under the *Water Act 2007*, partnerships with water managers and the new systems and standards we are developing with research partners including CSIRO, Geoscience Australia and the eWater Cooperative Research Centre. Over coming years, all of this work will provide water managers, policy makers and the general public with a range of data, reporting and forecasting products.

## DATA

### Water Storage information

Australians now have free online access to information about publicly-owned water storages across Australia at a single website. Visitors to the Bureau's website at: [www.bom.gov.au/water](http://www.bom.gov.au/water) will be able to compare water storage levels for over 250 sites across the nation, with daily updates available for most of Australia's urban and rural water supply systems.

### Modernisation and Extension of Hydrologic Monitoring Systems Program

Improving the quality and reliability of Australia's water information, requires the upgrade of many monitoring and data transfer systems across the nation. The Bureau administers the Australian Government's \$80 million Modernisation and Extension of Hydrologic Monitoring Systems Program. The Program began in 2007 and will continue until 2012 to help water data collecting agencies to upgrade and expand their streamflow, groundwater monitoring and water storage measurement networks.

## REPORTING

### National Water Account

The National Water Account (NWA) will provide water managers and policy makers with information about water rights, water availability and water use that has previously been difficult to access or unavailable to general users in a standardised form. The NWA will transparently report on volumes of water traded, extracted and managed for economic, public and environmental purposes across Australia. It will be published annually from 2011 and will be freely available.

### Australian Hydrological Geospatial Fabric

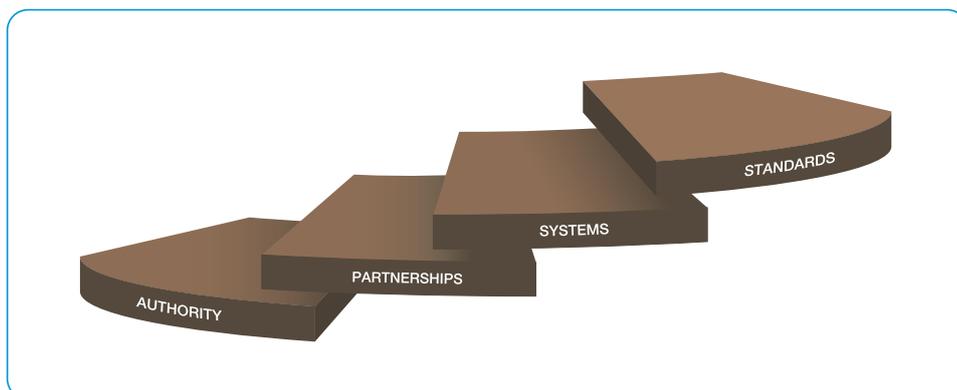
The Australian Hydrological Geospatial Fabric (Geofabric) is a specialised Geographic Information System (GIS) that registers the spatial relationships between important hydrologic features such as rivers, dams, lakes, aquifers, diversions and monitoring points. The Bureau is working with Geoscience Australia to deliver the first stage in 2010.

## FORECASTING

### National flood forecasting and warning service

The Bureau's flood forecasting and warning service uses rainfall and streamflow observations, numerical weather predictions and hydrologic models to forecast likely flood events across Australia. This information provides the basis for flood response by emergency services and is vital for water resource managers responding to large inflows of water into their dams and rivers. The Bureau's national flood warning service will be enhanced with a seasonal streamflow forecasting service, due to go live at the end of 2010.

Products  
↑  
Foundations



# Research and development partnerships

The Bureau is working closely with CSIRO researchers on new science and technologies to improve water information across Australia. This partnership is funded through the five-year, \$50 million Water Information Research and Development Alliance (WIRADA).

WIRADA's advances are complemented by research and development through the Centre for Australian Weather and Climate Research (CAWCR), an ongoing venture between CSIRO and the Bureau ([www.cawcr.org.au](http://www.cawcr.org.au)), and the eWater CRC involving 45 of Australia's leading water management, consulting and research organisations, supported by the Australian Government's Cooperative Research Centres (CRC) program.

For further information please visit our website at [www.bom.gov.au/water](http://www.bom.gov.au/water)



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