



Australian Landscape Water Balance



The water balance in the Australian landscape results from the interaction of soil moisture, runoff, evapotranspiration, deep drainage and precipitation. National and State agencies, water utilities, dam operators, flood forecasters, farmers and decision-makers in industry, government and the community can access data about all these factors through an interactive website from the Bureau of Meteorology.

What data is available?

Nationally consistent modelled data is available on soil moisture, runoff, evapotranspiration, deep drainage and precipitation, each at a spatial resolution of 25 square kilometres (a 5x5 km grid). The information is updated daily and is available at daily, monthly and annual timescales from 1911 onwards.

Interact with the data

Explore

Pan and zoom to any scale using the interactive map, search for particular locations or river catchments, or click the map for the data at a particular location.

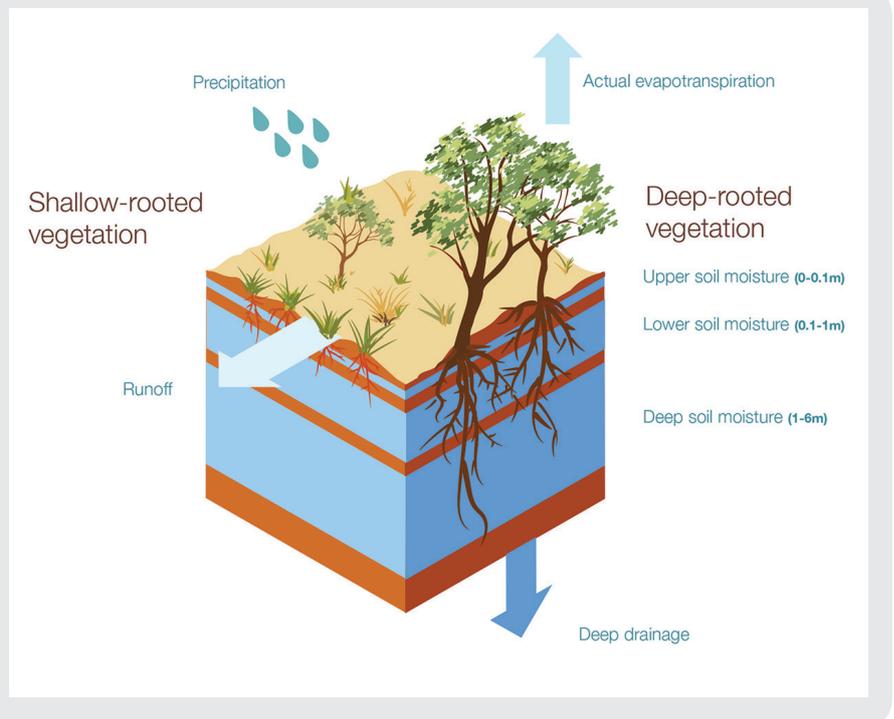
Select and analyse

Select a water balance component to see the daily time series of values for that component at your chosen location. You can also see the time series of average values for the catchment it is part of. Click any point on these graphs for the values for a particular day.

Aggregate your data by day, month or year, and switch between maps showing actual or relative values. Get estimates of the current and historical state of key landscape water balance components, as well as the movement of water through the landscape.

The model behind the data

The Australian Landscape Water Balance website provides estimates of water fluxes and stores in the Australian landscape. These estimates are taken from a model that simulates the flow of water through the land—through the vegetation and soil—and then out again as evapotranspiration, runoff to surface water, or deep drainage to groundwater.



Download

Download time series and gridded data for the past ten years directly from the website.

You can also contact us to request a longer dataset (up to 100 years), more water balance variables, a tailored data product or a regular registered user data service

What is the Bureau's role?

The data presented on the Australian Landscape Water Balance website is produced by the Bureau's operational Australian Water Resources Assessment Landscape model. This model was developed through the Water Information Research and Development Alliance between the Bureau and CSIRO.

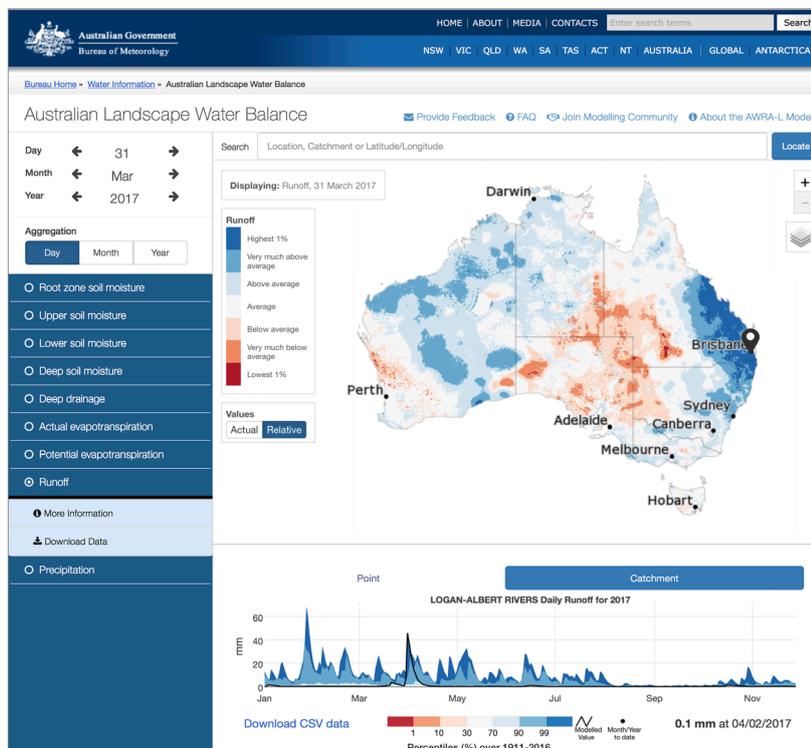
The Bureau's Water program has built a comprehensive and reliable picture of Australia's water resources to support policy and planning. It provides nationally consistent landscape water balance estimates as part of its water information role and responsibilities under the *Water Act 2007*.

What can the data be used for?

Australian Landscape Water Balance data can be used for water resources assessment and management, dam operations, agriculture, flood modelling and bushfire applications, research and education, and more.

It is a valuable source of information for government agencies, policymakers, researchers, natural resource managers, farmers and members of the wider public. For example:

- A policymaker could look at soil moisture to assess the impacts of drought over time in any region, and easily compare to previous droughts.
- A dam operator could use the soil moisture data to quantify the initial losses of water when predicting runoff after rainfall. Alternatively, they could use the simulated runoff directly to predict their dam inflows following rainfall.
- The daily data update means a member of the public can look at the runoff from a big storm in their area on the previous day.



The Australian Landscape Water Balance website showing impacts of tropical cyclone Debbie on runoff.

FIND OUT MORE

Visit the Australian Water Balance Website at <http://www.bom.gov.au/water/landscape/> or contact awrams@bom.gov.au to access registered user or tailored services.



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