South West Land Division

Monthly rainfall, streamflow and temperature
Month: September

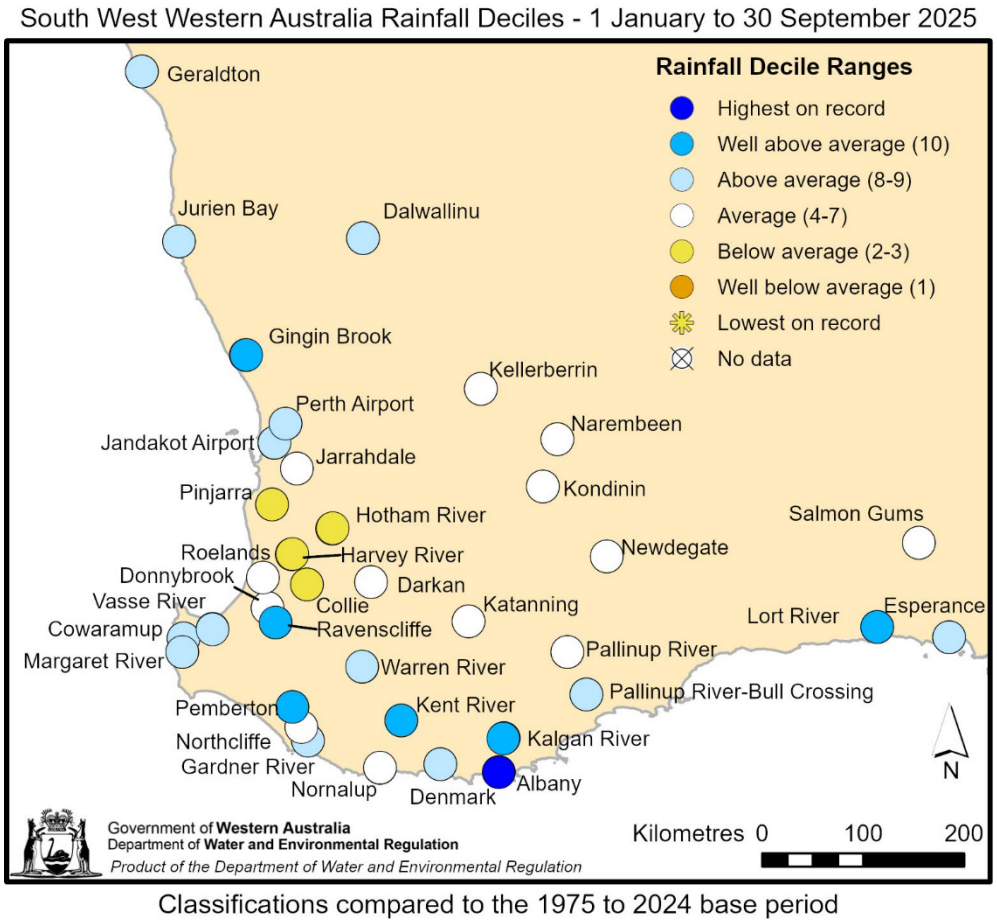
History - Rainfall and streamflow for 2025

Rainfall

Long-term trends show declining rainfall in south-west WA (see 'Climate context' below).

Rainfall was average or above average across much of the South West Land Division in September 2025. January to September rainfall has been average or above at most tracking sites except for sites between Pinjarra and Collie, where rainfall has been below average. Sites along the South Coast have experienced above average rainfall. Rainfall for 2025 (to September) varied across the region, from highest on record to below average. It was:

- highest on record at Albany and above average at Gingin Brook, Ravenscliffe, Pemberton, Kent River, Kalgan River and Esperance
- average at over one third of the department's SWLD tracking sites
- below or well-below average at four sites in the area between Pinjarra and Collie



Classifications compared to the 1975 to 2024 base period

Map 1: Rainfall deciles* for September for the SWLD

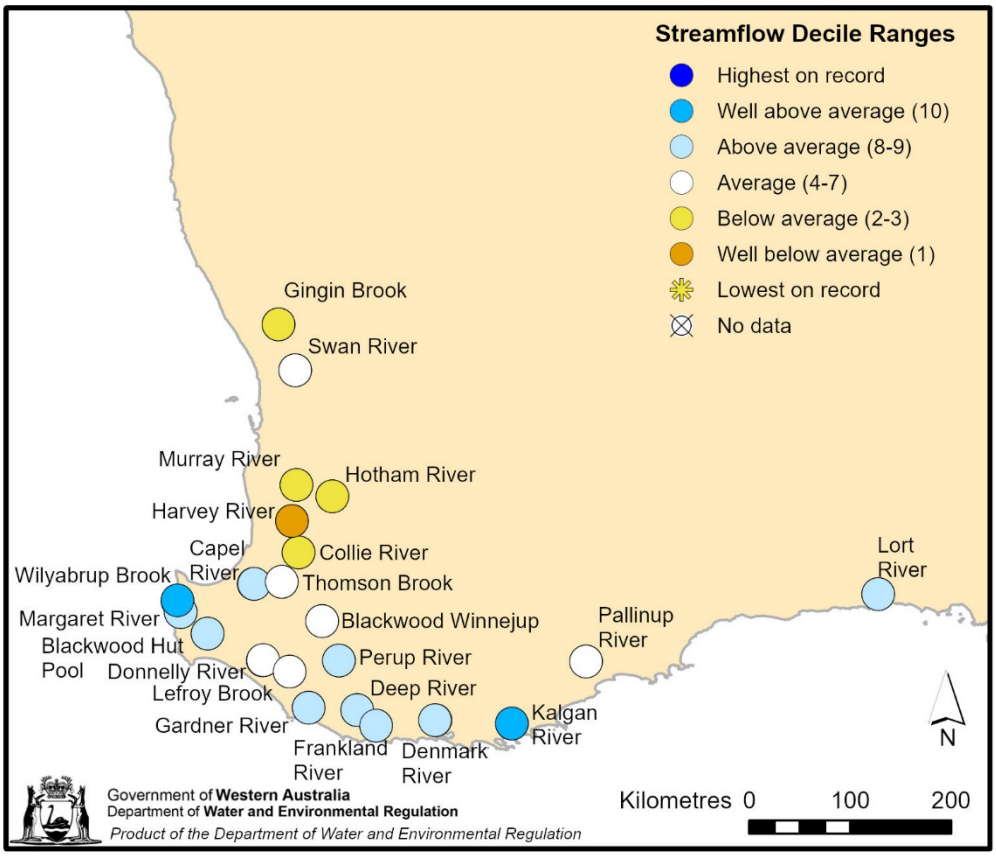
* A rainfall decile is a way to compare the amount of rain for a particular place and period. The rain volumes at each location for the same calendar period for each year between 1975–2024 are ranked from least to most and then divided into 10 groups. The first group ('decile 1') contains the lowest 10 per cent of rainfalls so it is the driest 10 per cent of measures and is a well-below average amount of rain. At the other end of the spectrum, 'decile 10' contains the highest/wettest 10 per cent of measures and is well-above average rainfall. The coloured circles in the map show how a 2025 rain amount fits with these 10 groups of ranked historical rainfall.

Streamflow

Average to wet rainfall conditions so far this year in the South West corner and along the South Coast, has resulted in mostly average to above average streamflow in this area. Gingin Brook and sites from Murray River to Collie River recorded below average to well below average streamflow from January to September. So far this year:

- Most sites along the South Coast recorded above average from January to September streamflow
- Gingin Brook, Murray River, Hotham River, and Collie River recorded below average streamflow
- Harvey River experienced well below average January to September streamflow

South West Western Australia Streamflow Deciles - 1 January to 30 September 2025



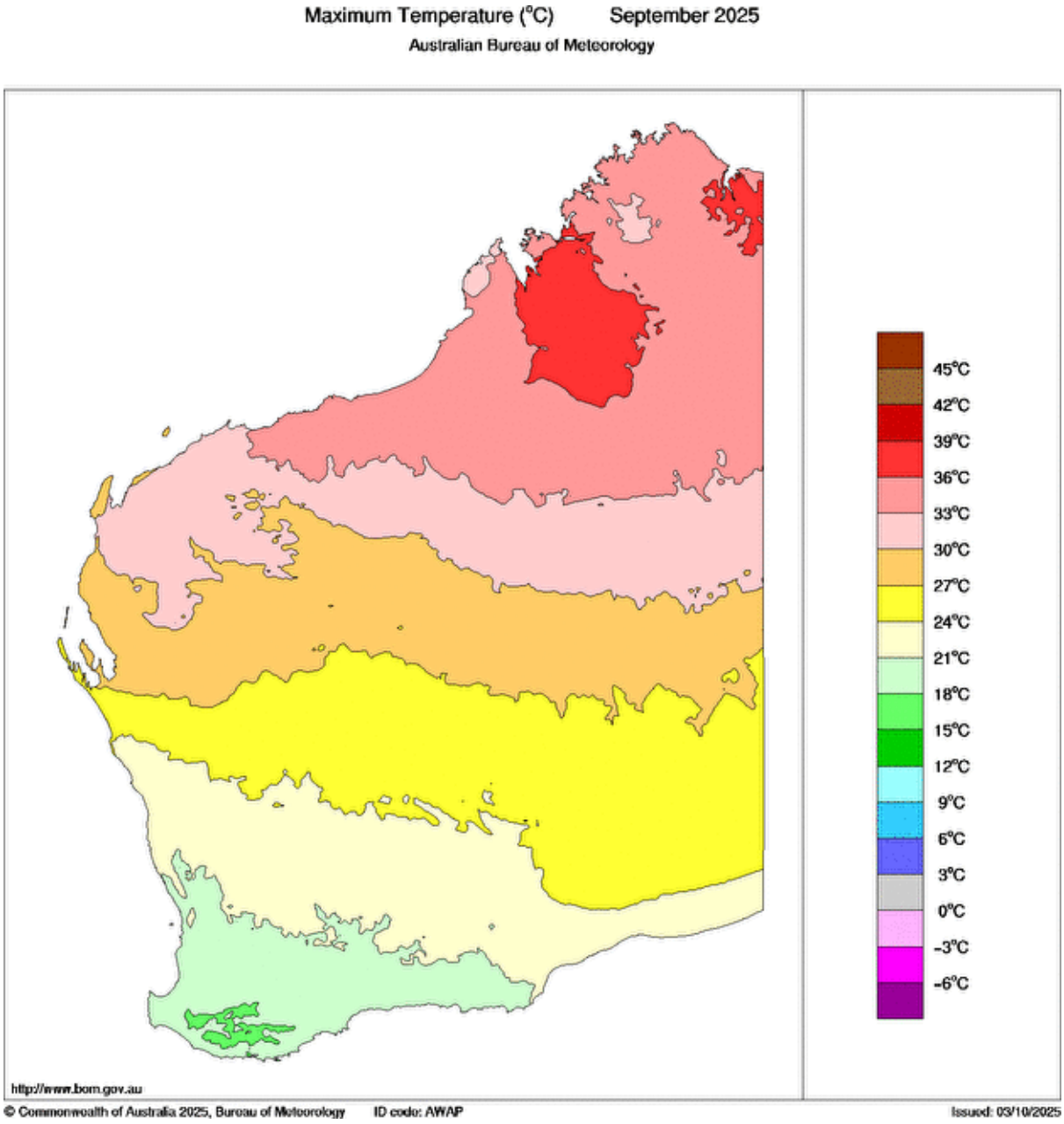
Classifications compared to the 1975 to 2024 base period

Map 2: Streamflow deciles† for September for the SWLD

† A streamflow decile is a way to compare the amount of water flowing in a stream, river or other channel for a particular place and period. Streamflow at each location for the same calendar period for each year between 1975–2024 are ranked from least to most and then divided into ten groups. The first group ('decile 1') contains the lowest 10 per cent of streamflow and is well-below average streamflow. At the other end of the spectrum, 'decile 10' contains the highest 10 per cent of measures and is well-above average streamflow. The coloured circles in the map show how a 2025 streamflow fits with these 10 groups of ranked historical streamflow.

History - Temperature 2025

To complement the tracking we are undertaking for the SWLD, we will also regularly update the mean maximum observed temperature and temperature forecasts, along with rainfall forecasts, produced by the Bureau of Meteorology.



Map 3: Mean maximum temperature (°C) for September 2025

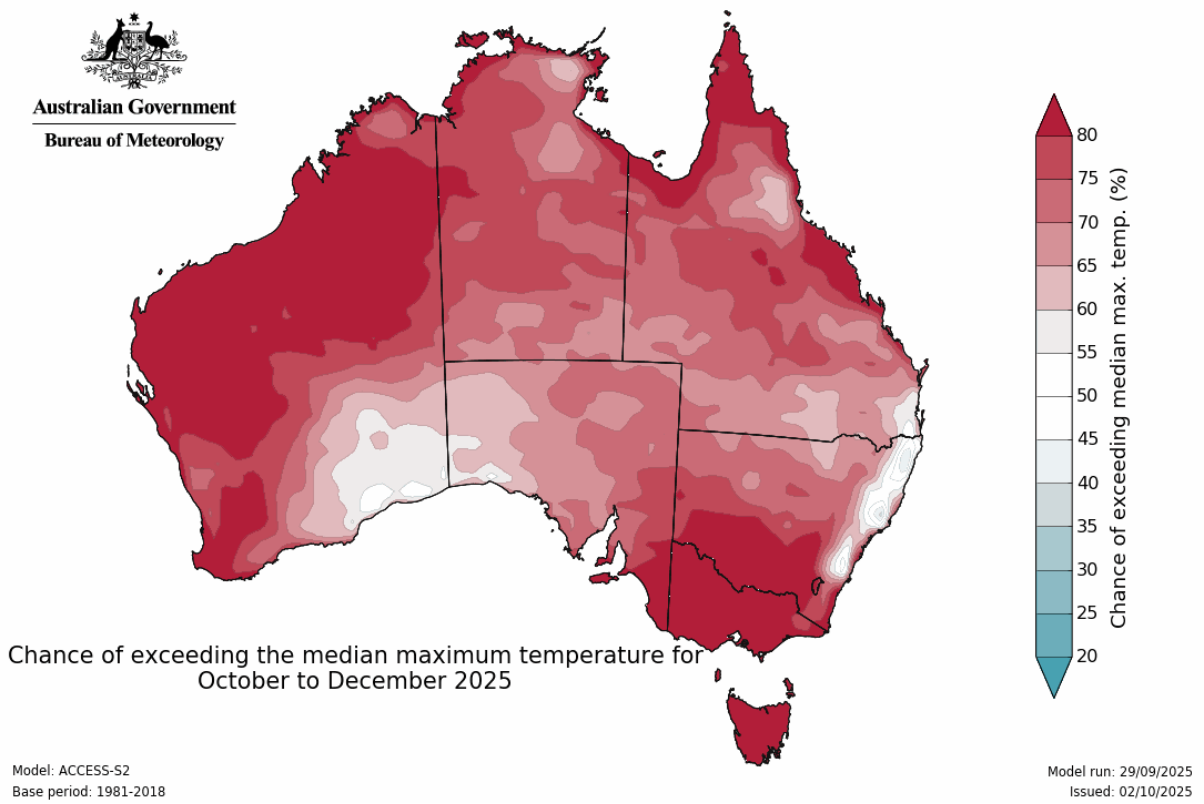
Source: *Climate Maps - Temperature Latest*

The mean maximum temperatures in July were average for most of the SWLD. The mean maximum temperatures ranged from 15 to 21 degrees.

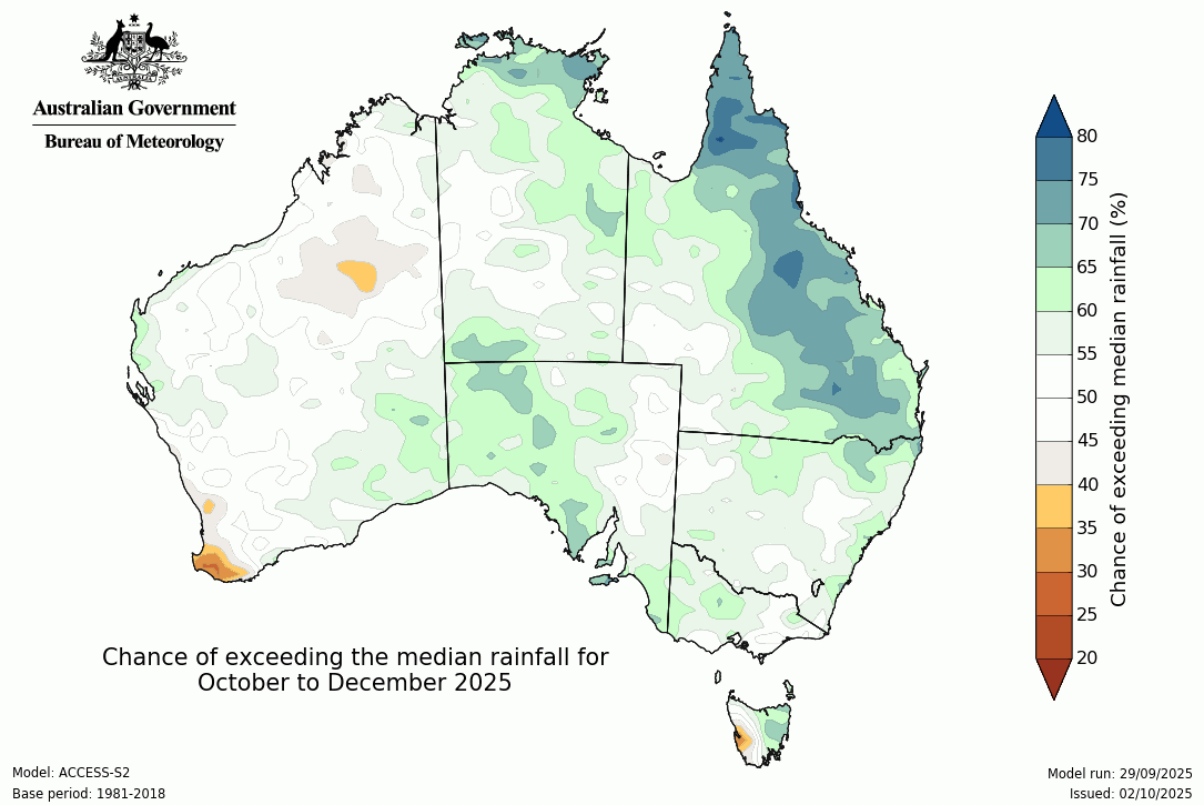
Future - Seasonal forecast

When considering forecasts, it is important to look at the forecast and the forecast model's accuracy. Model accuracy is a measure of how well the forecasts matched real records previously.

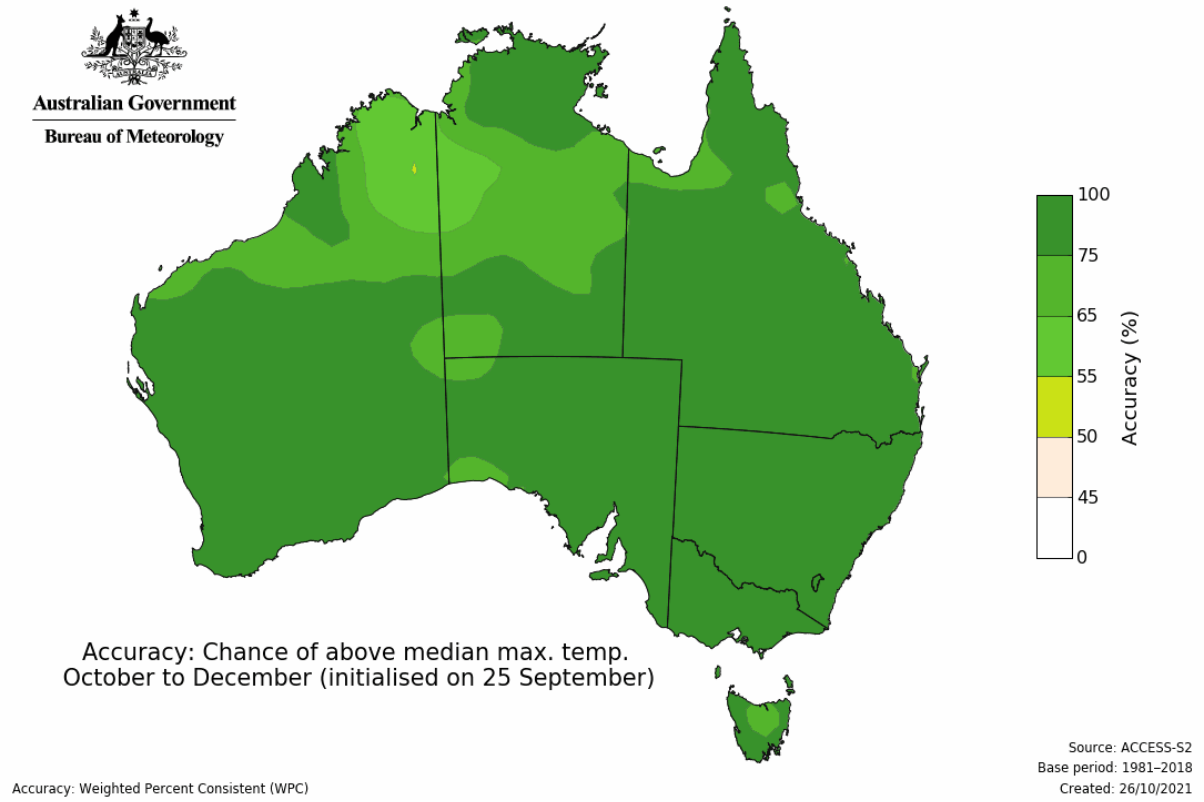
Maps 4 and 5 below show the temperature and rainfall forecasts for Australia using Bureau of Meteorology modelling, while maps 6 and 7 show the modelling accuracy of these forecasts (i.e. how well the model has previously forecast the weather at that time of year).



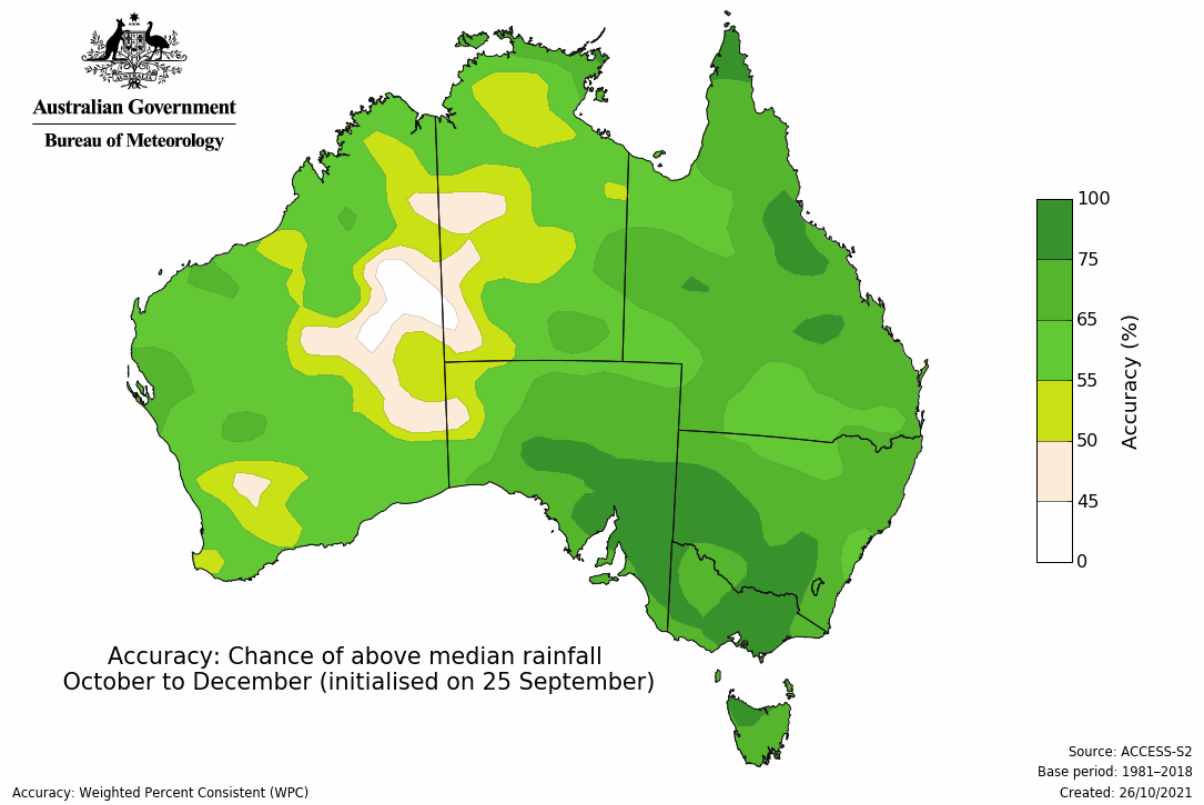
Map 4: 3-month temperature outlook



Map 5: 3-month rainfall outlook



Map 6: Temperature outlook accuracy



Map 7: Rainfall outlook accuracy

As at 25 September 2025:

- The Bureau of Meteorology expects warm conditions to continue, with an over 75 per cent chance of exceeding the median maximum temperatures for most of the SWLD from October to December (Map 4).
- The accuracy of the temperature forecast is greater than 75 per cent in the SWLD. This indicates a high level of confidence in the forecast (Map 6).
- October to December may be drier than average in the South West corner, with the chance of exceeding median rainfall being less than 40%. Other areas of the SWLD have no strong indication of particularly wet or dry conditions at this stage (Map 5).
- The accuracy of the rainfall forecast is greater than 50 to 65 per cent in the SWLD indicating a low to moderate level of confidence in the forecast (Map 7).[1]

Climate context

Rainfall decline in south-west WA has been greater than anywhere else in Australia. Almost all climate projections indicate a warmer and drier future for the region, marking it as a global hotspot for reduced rain because of climate change.

Since the 1970s, in south-western WA there has been:

- a 16 per cent decline in April–October rainfall[2]
- about 80 per cent less flow into Perth's water supply dams[3]
- up to 70 per cent less recharge to groundwater.[4]

Climate change poses significant challenges for communities in WA that are experiencing more extreme weather events such as tropical storms, floods and bushfires. The State Government is supporting businesses, communities and local governments to understand the future climate and adapt to the impacts of climate change.

The Climate Science Initiative will produce the most detailed and comprehensive Western Australian climate change projections to date, extending to the year 2100