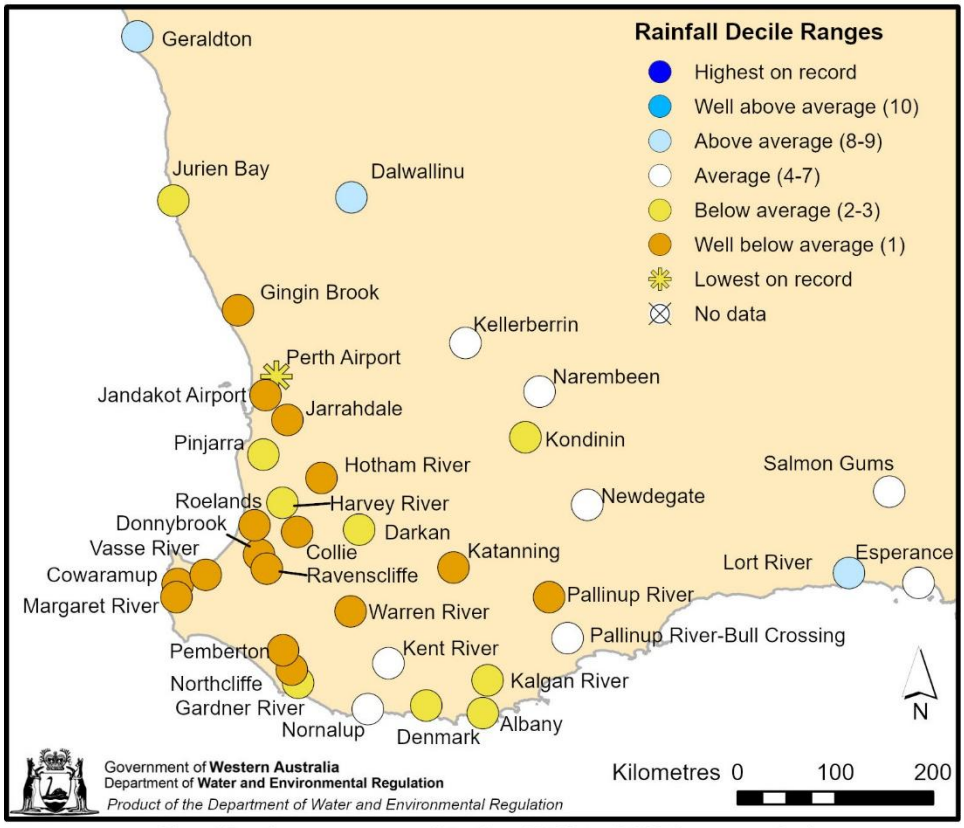
South West Land Division

Monthly rainfall, temperature and streamflow
Month: SEPTEMBER

Rainfall and streamflow 2026

Rainfall

Rainfall in September was below or well below average across most of the South West Land Division. Year-to-date rainfall (January to September) was mostly below to well below average in the South West Corner and average to above average elsewhere (Map 1). Perth Airport recorded its lowest year-to-date rainfall on record.



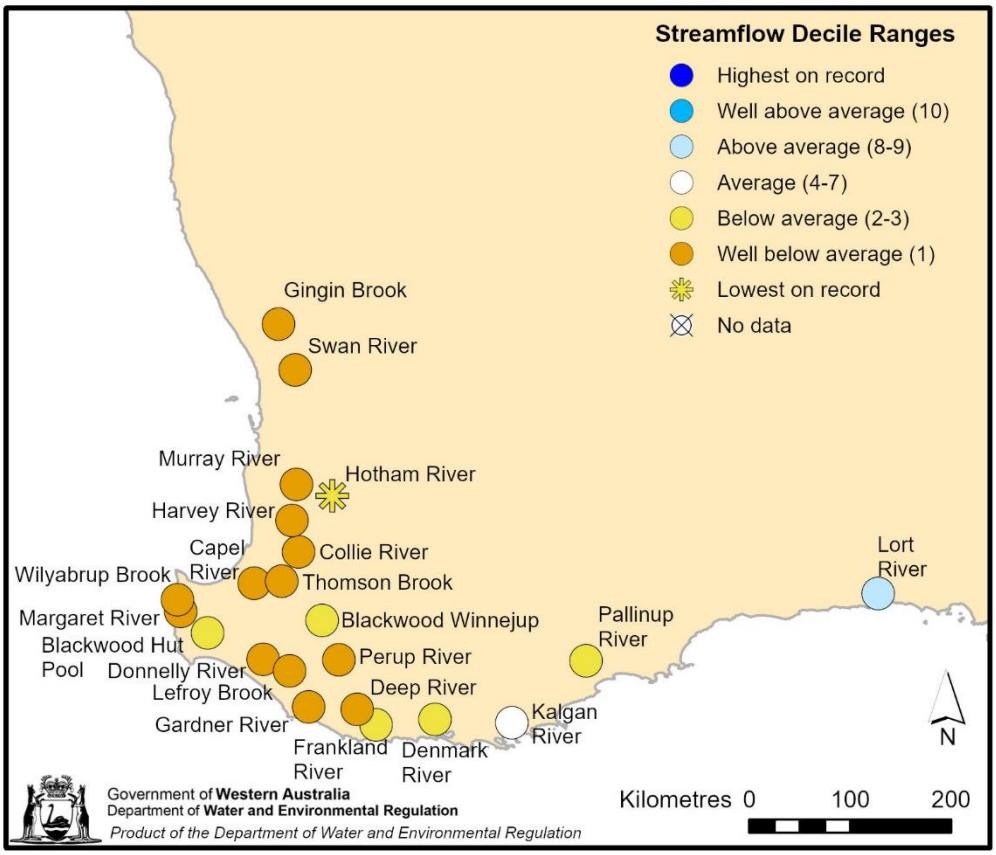
Classifications compared to the 1975 to 2025 base period

Map 1: Rainfall deciles* for January to September 2026 compared to 1975-2025 for the SWLD

* A rainfall decile is a way to show how the amount of rain for a particular place and period compares to the historical record. At each location, rainfall totals for the same calendar period from 1975–2025 are ranked from lowest to highest and divided into ten equal groups (deciles). Decile 1 contains the lowest 10 per cent of rainfalls and decile 10 contains the highest 10 per cent of rainfalls. Rainfall deciles are grouped to represent well below average rainfall to well above average rainfall. The coloured circles in the map show where the 2026 rainfall ranks in these groups.

Streamflow

Mostly below average or lower rainfall conditions across the SWLD from January to September this year have resulted in below average to well below average streamflow across the region. So far this year, the Hotham River has recorded its lowest streamflow on record. The Kalgan River had average flows and the Lort River recorded above average streamflow.



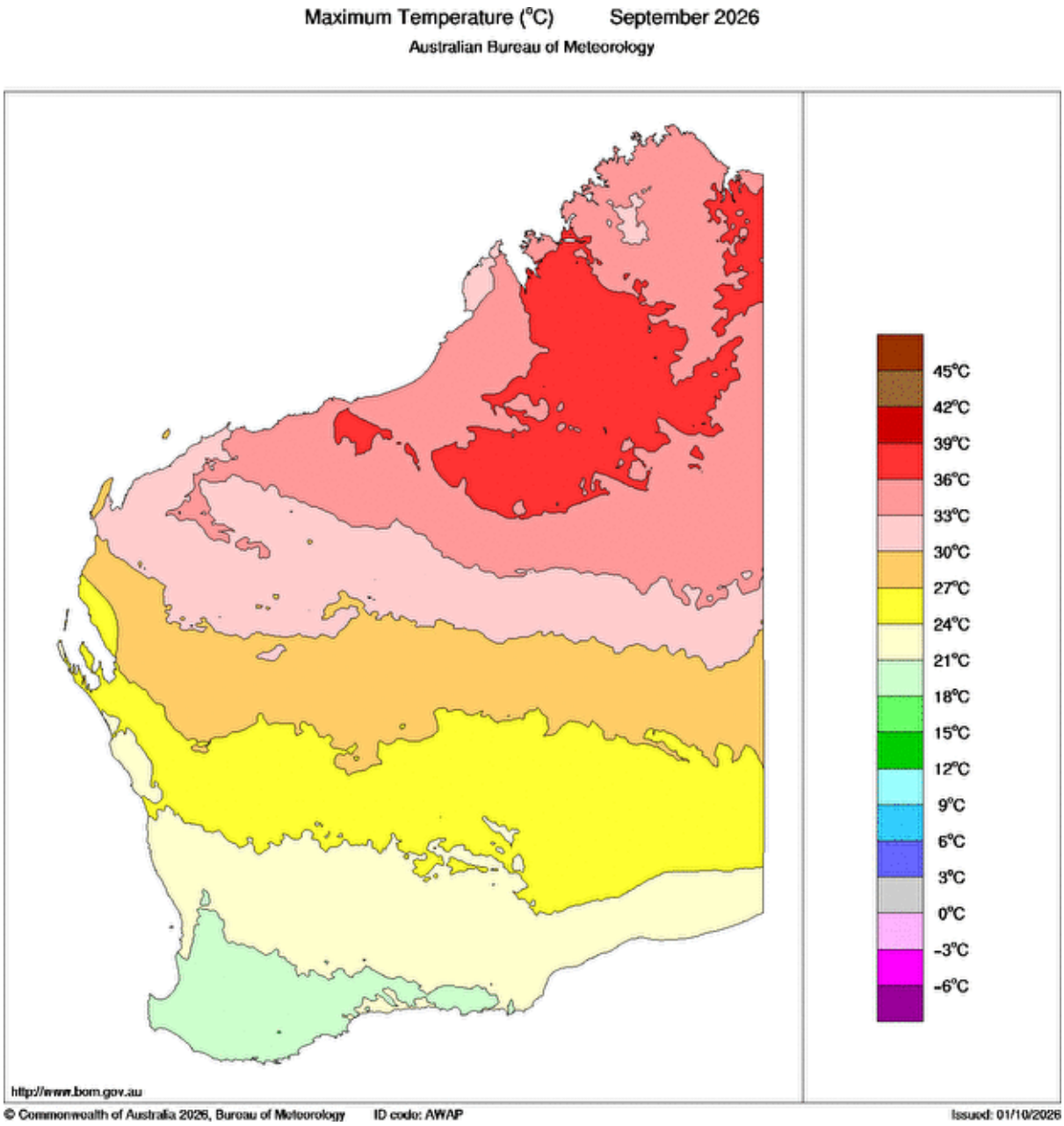
Classifications compared to the 1975 to 2025 base period

Map 2 Streamflow deciles† for January to September 2026 compared to 1975-2025 for the SWLD

† A streamflow decile is a way to show how the amount of water flowing in a stream, river or other channel for a particular place and period compares to the historical record. At each location, streamflow totals for the same calendar period from 1975–2025 are ranked from lowest to highest and divided into ten equal groups (deciles). Decile 1 contains the lowest 10 per cent of streamflows and decile 10 contains the highest 10 per cent of streamflows. Streamflow deciles are grouped to represent well below average streamflow to well above average streamflow. The coloured circles in the map show where the 2026 streamflow ranks in these groups.

Temperature 2026

The mean maximum temperature in September was above average to very much above average for the SWLD (Bureau of Meteorology Monthly maximum temperature decile for Western Australia), ranging from 18 to 24 degrees (Map 3).



Map 3: Mean maximum temperature (°C) for September 2026

Source: Bureau of Meteorology Climate Maps - Temperature Latest

Future - Seasonal forecast

To complement 2026 tracking for the SWLD, we also consider the rainfall and temperature forecasts, produced by the Bureau of Meteorology. 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 model forecasts match observed records as they become available.

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.

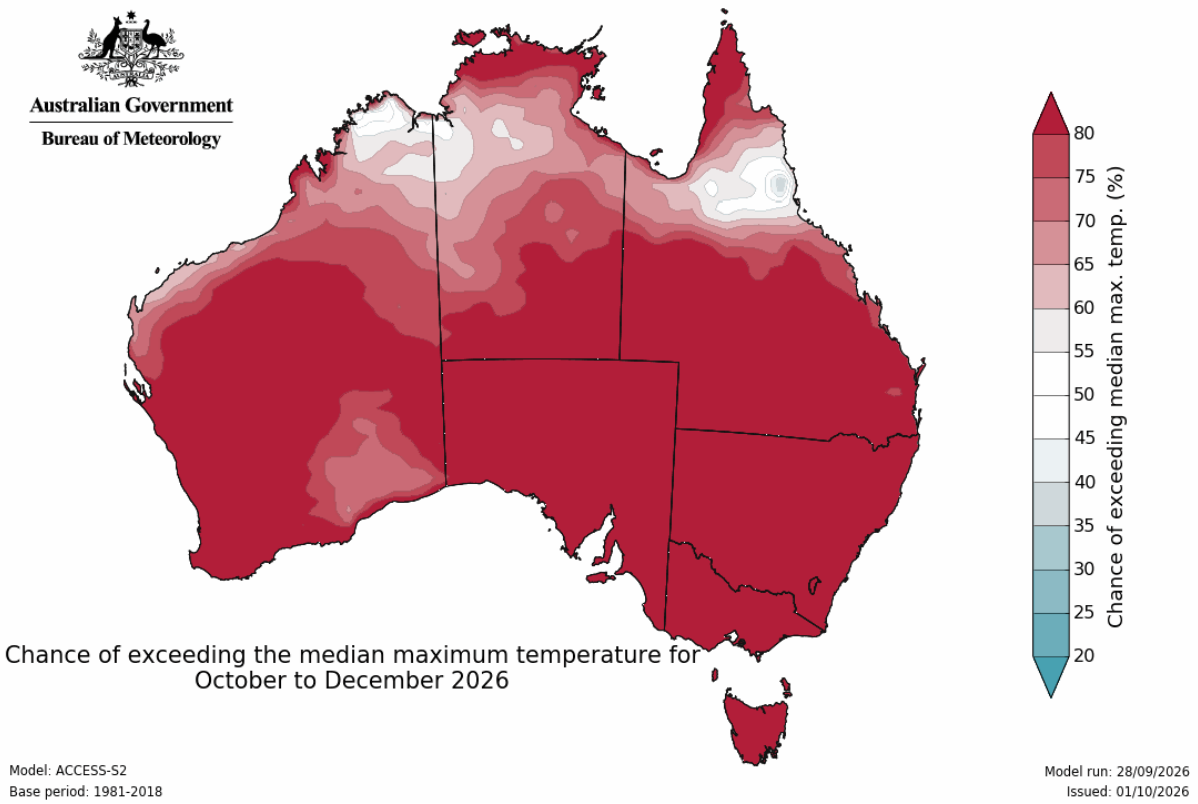
As at 28 September 2026:

- The Bureau of Meteorology expects warm conditions to continue, with a more than 80 per cent chance of exceeding the median maximum temperatures for the SWLD from October to December (Map 4).
- The accuracy of the temperature forecast is above 75 per cent in the SWLD. This indicates a high level of confidence in the forecast (Map 6).
- The rainfall forecast indicates above average rainfall conditions for the October to December period with a 40 to 80 per cent chance of exceeding median rainfall (Map 5). The Bureau predicts an increased chance of unusually high rainfall (in the wettest 20 percent of October to December records between 1981 and 2018) across much of southern and central parts of Western Australia.
- The accuracy of the rainfall forecast is low to moderate over the SWLD (Map 7).[1]

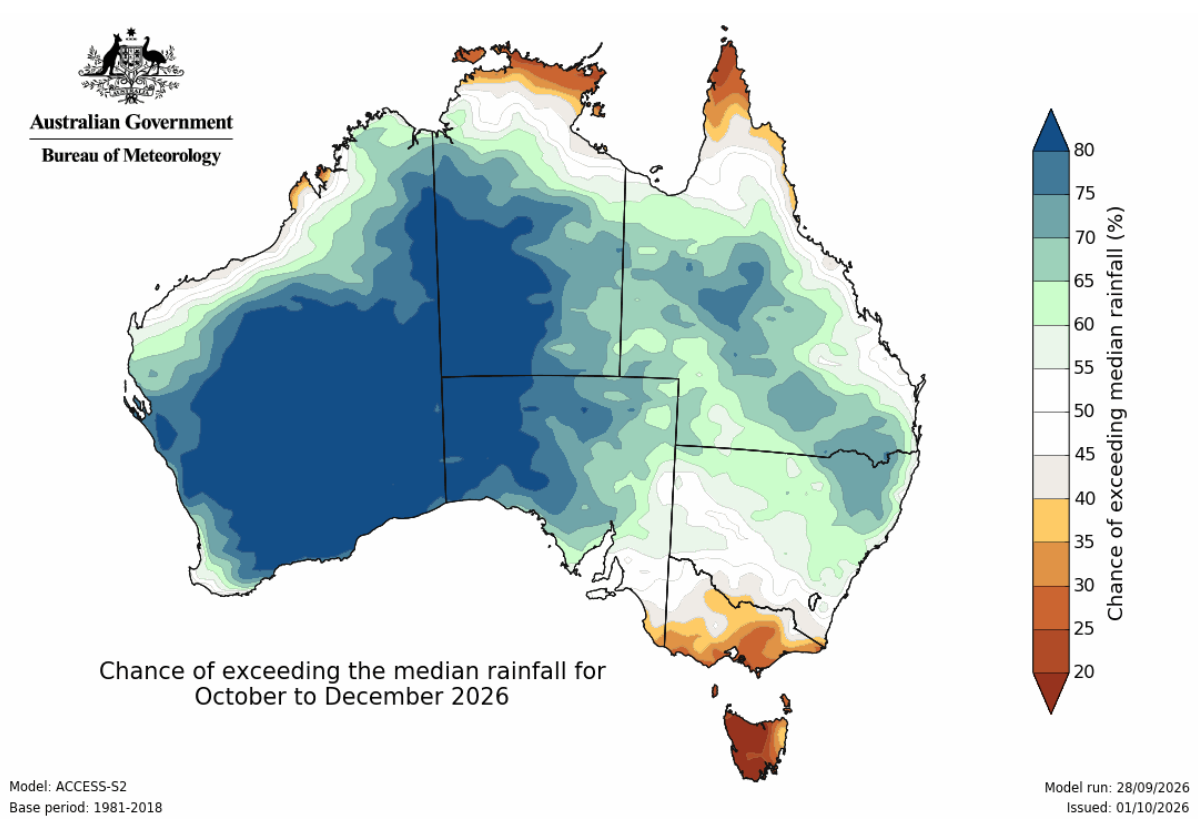
Bureau of Meteorology tracks global climate indicators to help understand long-term weather patterns. The indicators show a strong El Nino is underway in the tropical Pacific, with further intensification forecast during spring. A positive Indian Ocean Dipole is likely to form in spring and persist through early summer. Combined, these climate drivers are likely to bring higher temperatures across the SWLD.

[1] Bureau of Meteorology. Accessed January 9, 2025:

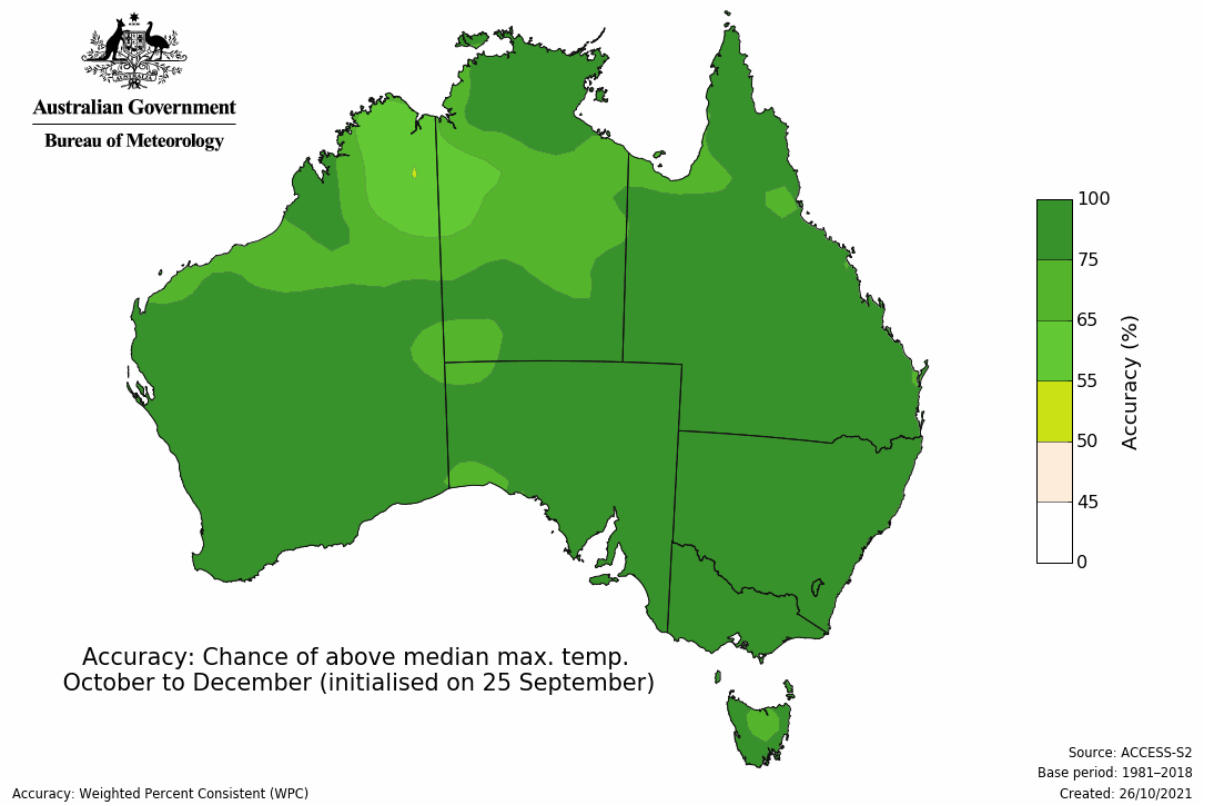
- *Climate outlooks – weeks, months and seasons*. 27 February 2025. www.bom.gov.au/climate/outlooks/#/rainfall/summary.
- *Climate and water long-range forecast*. 27 February 2025. www.bom.gov.au/climate/outlooks/#/overview/video.
- *Western Australia in autumn 2024*. 2 December 2025. www.bom.gov.au/climate/current/season/wa/summary.shtml.



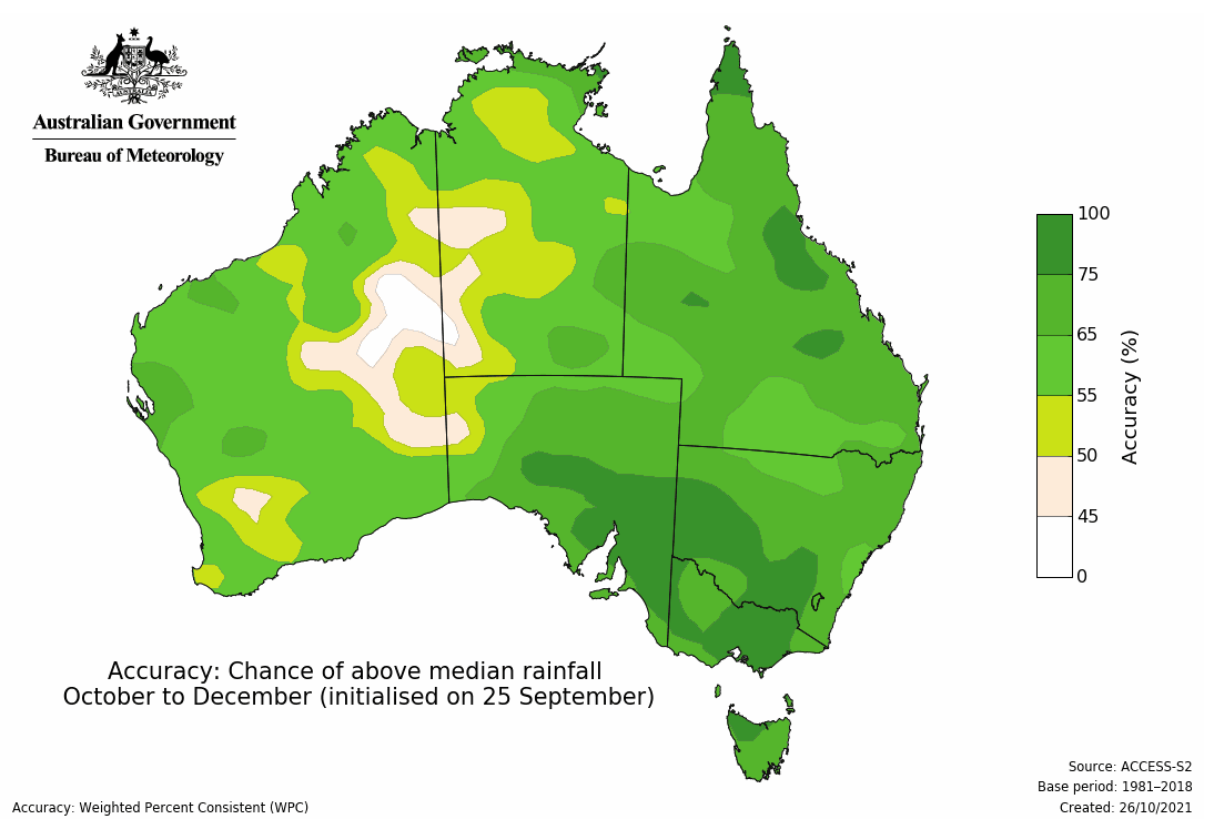
Map 4: 3-month temperature outlook



Map 5: 3-month rainfall outlook



Map 6: Temperature outlook accuracy



Map 7: Rainfall outlook accuracy

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.

[2]Lawrence J, Mackey F, Chiew M, et al. Chapter 11: Australasia. Climate change 2022: impacts, adaptation and vulnerability – Australasia. Contribution of the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. oi:10.1017/9781009325844.013

[3]Water Corporation. Streamflow. Accessed August 30, 2024. www.watercorporation.com.au/Our-water/Rainfall-and-dams/Streamflow

[4]Gelsinari, S., Bourke, S., McCallum, J., McFarlane, D., Hall, J., Silberstein, R. & Thompson, S. (2024). **Nonstationary recharge responses to a drying climate in the Gnangara Groundwater System, Western Australia**. *Journal of Hydrology*, **633**, 131007. https://doi.org/10.1016/j.jhydrol.2024.131007