Seasonal Climate Outlook

Date: March 2025

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The rainfall outlook for autumn (March to May 2025) shows no model consensus (no majority agreement) among 18 national and international climate models for the northern part of the South West Land Division (SWLD). For the southern part of the SWLD, the models indicate a neutral chance of exceeding median rainfall. Meanwhile, the temperature outlook suggests than warmer-than-normal temperatures will persist.

Recent conditions

- Temperatures remain warmer than normal.
- Rainfall has been below average. Very little rain from Tropical Cyclone Zelia (14 February) after making landfall in Port Hedland, weakened as it moved inland and from Tropical Cyclone Bianca (23 February), which remained well offshore.
- Climate drivers (ENSO and IOD) are neutral. Climate models often struggle to provide accurate three-month outlooks under neutral conditions.
- Note: The ‘autumn predictability barrier’ affects climate model accuracy, meaning forecasts beyond autumn (March to May), have the lowest skill and should be interpreted with caution.

Rainfall

Since January, rainfall has been below average across most of the South West Land Division. The highest totals were recorded in Tamar (near Albany) with 49 mm and Manypeaks 43 mm.

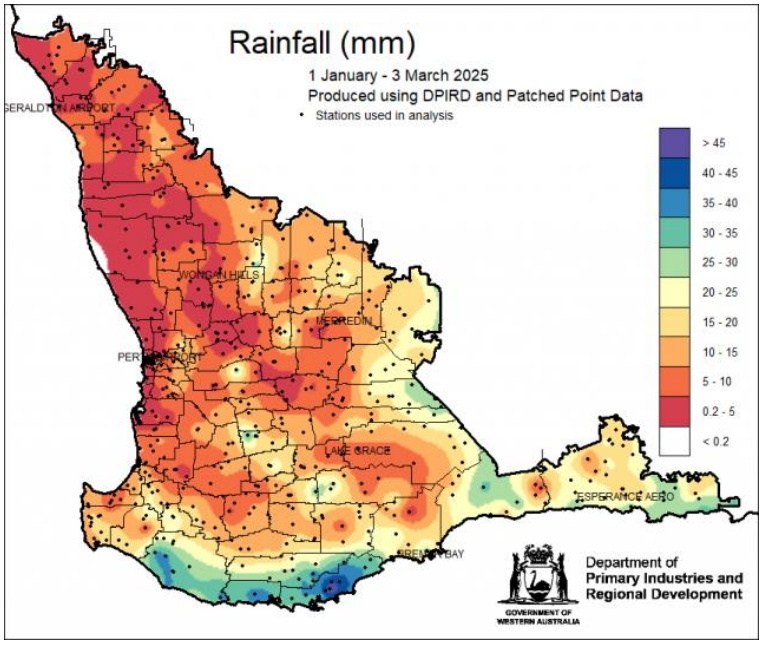

Figure 1 Rainfall (mm) totals for 1 January to 3 March 2025 in the South West Land Division. Tamar, near Albany in the south west forecast district had the highest rainfall with 49 mm.

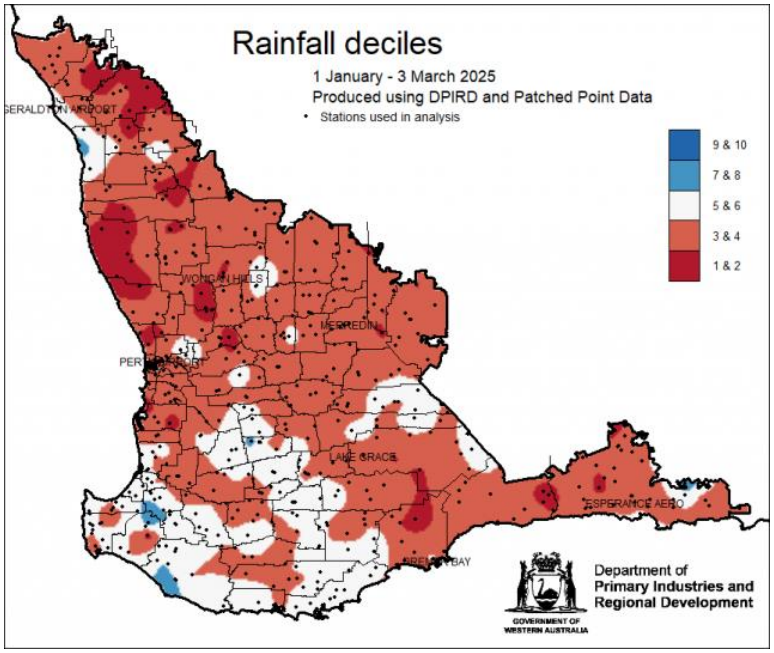

Figure 2 Rainfall decile ranking map for 1 January to 3 March 2025 for the South West Land Division. Indicating decile 1-4 for the majority.

Summary table

Rainfall Outlook **Central West and Central Wheatbelt**	No model consensus (no agreement among models) for autumn (March to May 2025). Further ahead, model consensus indicates a neutral chance of exceeding median rainfall, meaning a wide range of rainfall amounts remains possible
Rainfall Outlook **Remainder of the SWLD**	Model consensus indicates a neutral chance of exceeding median rainfall for autumn (March to May 2025), meaning a wide range of rainfall amounts remains possible. For April to June, model consensus suggests above average rainfall, with no clear model agreement beyond that period.
Temperature Outlook	Models indicate warmer than normal temperatures until at least June, which will accelerate plant growth.
El Nino Southern Oscillation (ENSO)	Currently neutral, with forecasts indicating the Pacific Ocean to remain neutral until July.
Indian Ocean Dipole (IOD)	Currently neutral. No influence is expected until the end of the monsoon season, usually in May.
Southern Annular Mode (SAM)	No influence on autumn rainfall in the South West Land Division

Key feature: Climate models

Rainfall outlooks are derived from multiple national and international climate models. These global climate models have a grid scale of 50-250 km. In this newsletter, climate models are sourced from the World Meteorology Organization Lead Centre for Long-Range Forecast Multi-Model Ensemble, the Climate Copernicus website as well as a number of individual websites.

Pervious rainfall outlooks covered the entire South West Land Division (SWLD). Based on feedback, the outlook is now provided for specific areas, dividing the SWLD into two regions.

An example of a climate model outlook is shown in the map below, illustrating the grid structure of the SWLD. Separate rainfall outlooks will be given for: the combined central west and central wheatbelt forecast district and for the remainder of the SWLD (Lower west, South west, Great Southern, South Coastal and South East Coastal forecast districts).

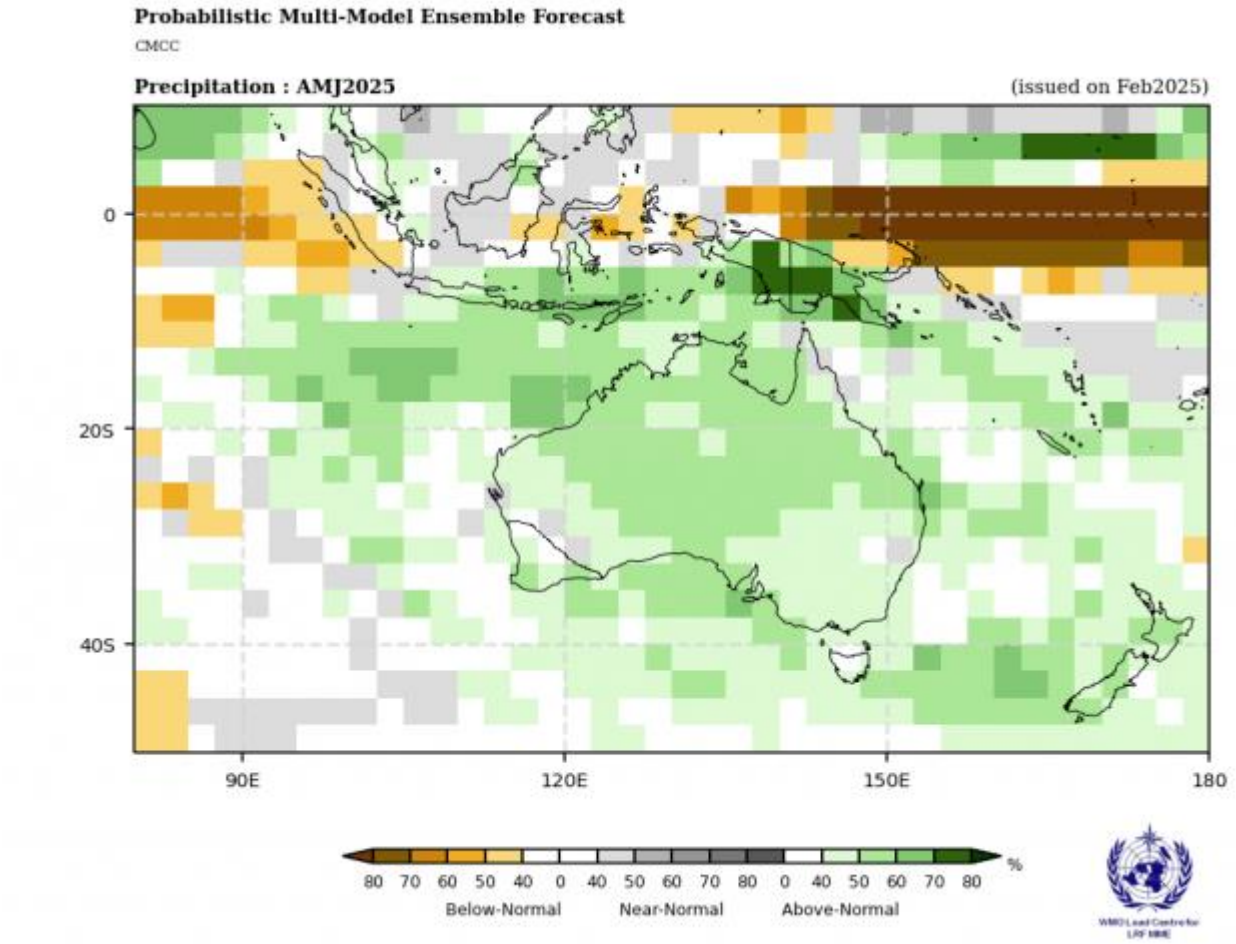

Figure 3 Rainfall outlook from the Centro Euro-Mediterraneo sui Cambiamenti Climatici (CMCC) model from Italy for April to June 2025 for Australia shown on the World Meteorological Organization website. The South West Land Division is shown, indicating that there are 3 whole and 3 partial climate model grids that make up the SWLD.

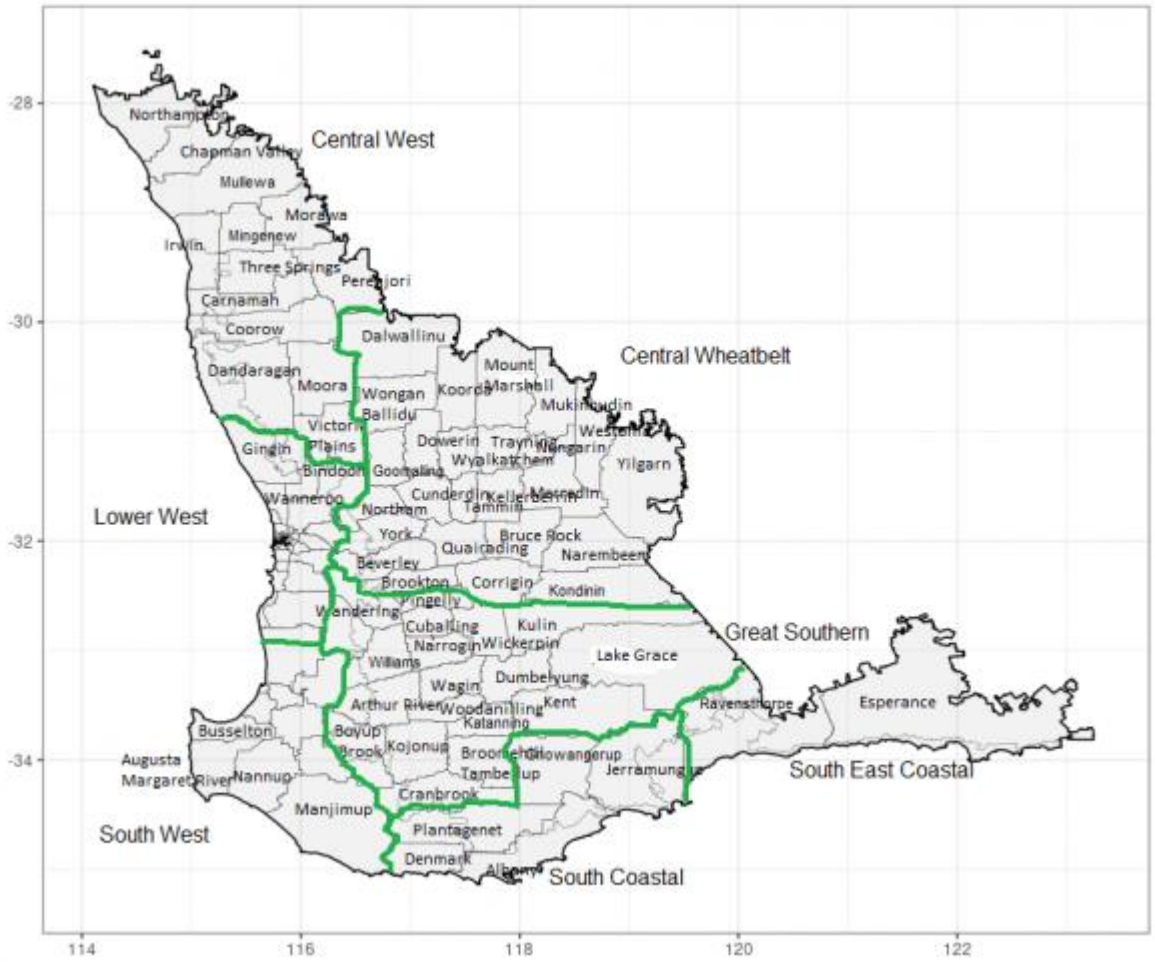

Figure 4 Shire boundaries and Bureau of Meteorology forecast districts of the South West Land Division. Rainfall outlooks from climate models are given for combined Central West and Central Wheatbelt, and for the remainder of the SWLD.

What does a neutral chance of exceeding median rainfall mean?

A neutral chance of exceeding median rainfall indicates an equal likelihood—typically 40-60%—of experiencing above-average or below-average rainfall for a given period. This suggests that no strong climate drivers, such as El Niño or La Niña, are influencing the rainfall outlook, leading to a balanced probability of different rainfall outcomes. In such neutral conditions, while extreme wet or dry events are less likely, a wide range of rainfall amounts remains possible. This means that, despite the 50:50 outlook, actual rainfall can vary significantly, and planning should consider this variability.

Rainfall outlook

For the Central West and Central Wheatbelt forecast district of the South West Land Division

A summary of 18 national and international models shows that 2 models indicate below median rainfall, 8 indicate neutral chances and 8 indicate above median rainfall for autumn (March to May 2025). Meaning that there is no model consensus at this time. Looking further ahead, the majority of models (11 out of 16 models) are indicating neutral chance of exceeding median rainfall for April to June and May to July. There is no model consensus for winter, (June to August 2025) rainfall, although only 7 models provide a climate outlook this far ahead.

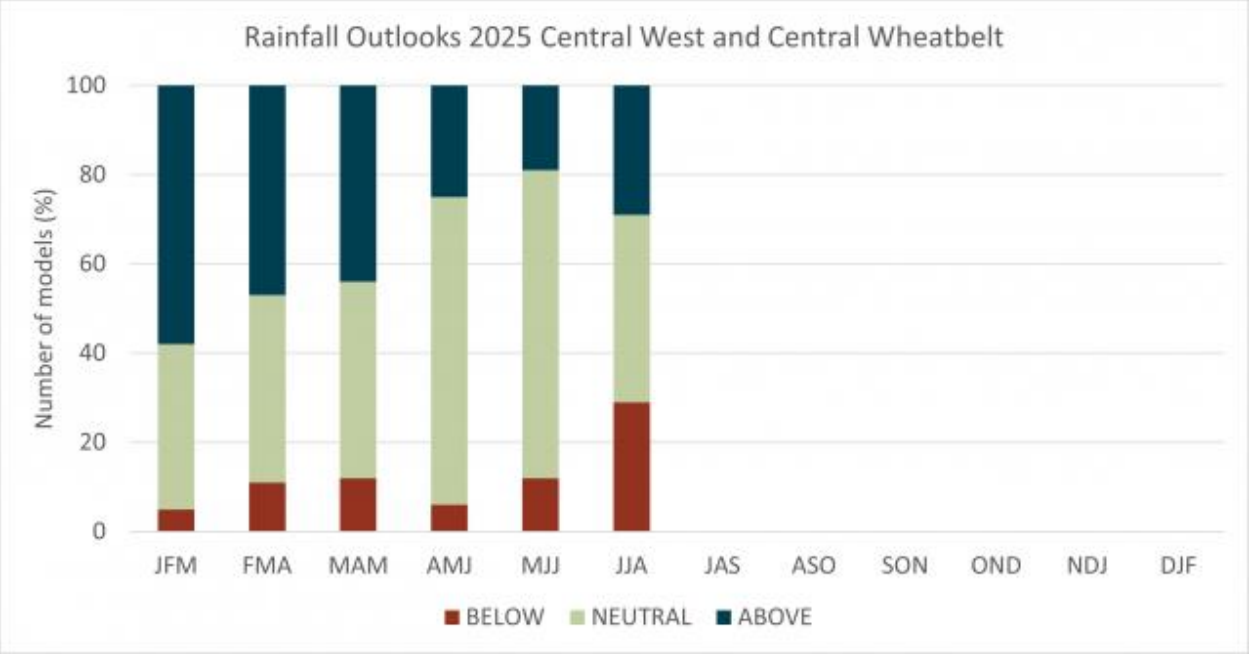

Figure 5 Model summary of rainfall outlook for the Central West and Central Wheatbelt forecast districts of the South West Land Division up to winter June to August 2025.

For the reminder of the South West Land Division

A summary of 18 national and international models shows that 12 models indicate neutral chances of exceeding median rainfall for autumn (March to May 2025). Further ahead, the majority of models is indicating above median rainfall for April to June, neutral chance of exceeding median rainfall for May to July. There is no model consensus for winter, (June to August 2025) rainfall, although only 7 models provide a climate outlook this far ahead.

However, it is important to note that model forecasts become less reliable the further ahead they extend. Additionally, due to the 'autumn predictability barrier', climate models forecasting beyond autumn (March to May), have the lowest skill and should be interpreted with caution.

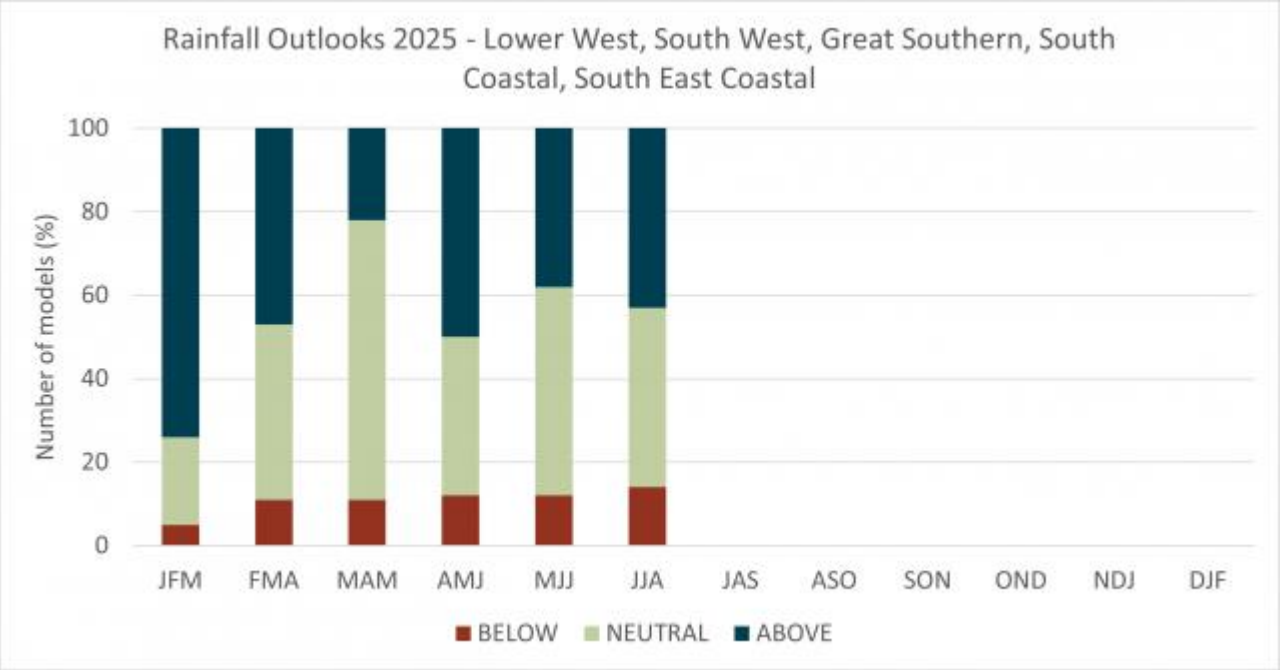

Figure 6 Model summary of rainfall outlook for the Central West and Central Wheatbelt forecast districts of the South West Land Division up to winter June to August 2025.

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