Seasonal Climate Outlook

Date: April 2025

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The rainfall outlook for April to June 2025 indicates that most models suggest a neutral chance of exceeding median rainfall. A neutral outlook means extreme wet or dry events are less likely, and a wide range of rainfall amounts remains possible. Temperature outlooks suggest that warmer-than-normal temperatures will persist.

Recent conditions

- Temperatures remain warmer than normal.
- March rainfall was above average for locations near Albany, due to a cut-off low associated with an active trough bringing moisture down from the north. There was an unverified report of 210 mm in Woogenellup.
- The latest root zone (top 1m of soil) soil moisture ranking from the Bureau of Meteorology's Australian Water Outlook is average to above average for most of the South West Land Division (SWLD). However, soil moisture at depth (1-6 m) remains very much below average for most of the SWLD, except in the Central West forecast district, where levels are above average following last year's above average rainfall.
- Climate drivers: The El Niño-Southern Oscillation (ENSO) and Indian Ocean Dipole (IOD) are currently neutral. A negative IOD is forecast to develop in August; however, it is expected to be weak and may bring increased rainfall to the eastern wheatbelt. Model skill is low at this time of the year.
- Seasonal Bushfire Outlook for Autumn 2025: There is an increased risk of fire for parts of the Central West Forecast district and from Albany to Eucla including the Great Southern region.

Rainfall summary

Since November 2024, rainfall has been below average in parts of the Central West and South Coastal and South East Coastal forecast districts of the SWLD. In contrast, areas around Albany experienced above-average rainfall, with the highest total recorded in Albany at 223 mm.

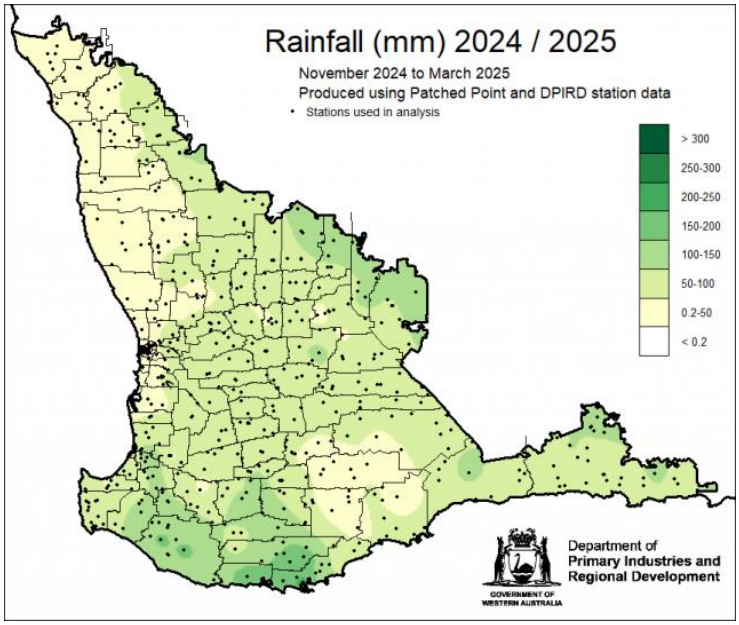

Figure 1 Rainfall (mm) totals for 1 November 2024 to 31 March 2025 in the South West Land Division. Albany in the south west forecast district had the highest rainfall with 223 mm.

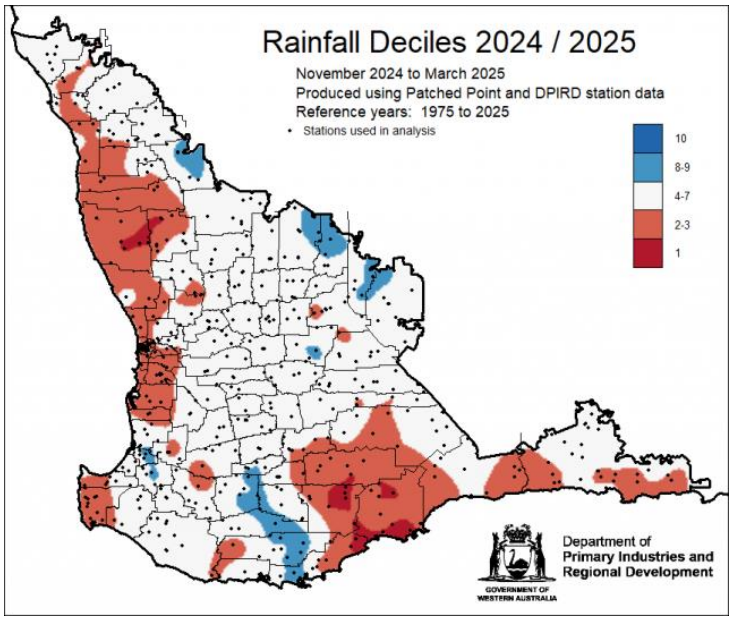

Figure 2 Rainfall decile ranking map for 1 November 2024 to 31 March 2025 for the South West Land Division. Indicating mixed rainfall, dry conditions in northern and southern parts.

Soil moisture at root zone and deep layer

The current root zone soil moisture ranking from the Bureau of Meteorology's Australian Water Outlook is average to above average across most of the SWLD but below average in the Central West forecast district. Root zone soil moisture is the sum of water in the Australian Landscape Water Balance model's upper and lower soil layers, representing the percentage of available water content in the top 1 m of the soil profile.

The deep-layer soil moisture ranking indicates very much below average across most of the SWLD, with levels in the lowest 10% for South East coastal forecast district. In contrast, soil moisture is above average in the Central West forecast district due to last year's above-average rainfall. Deep-layer soil moisture represents the percentage of available water content between 1-6 m in the soil profile. The maximum storage within this layer is determined by soil depth and the relative soil water storage capacity.

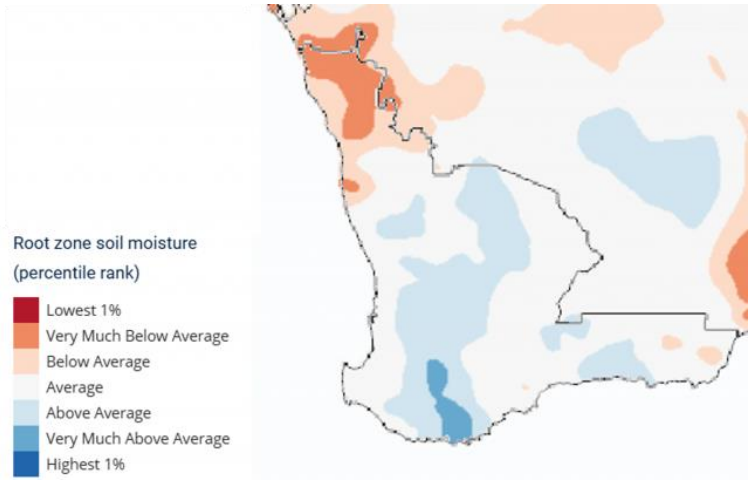

Figure 3 Relative root zone soil moisture ranking for 25 March 2025 from the Bureau of Meteorology's Australian Water Outlook. Indicating soil moisture is average to above average in the South West Land Division and very much below average in the Central West forecast district.

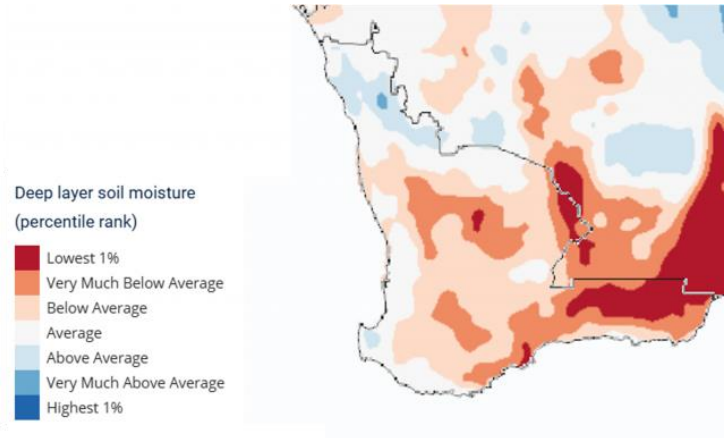

Figure 4 Relative deep layer soil moisture ranking for 25 March 2025 from the Bureau of Meteorology's Australian Water Outlook. Indicating soil moisture at depth is above average in the Central West forecast district and very much below average for the majority of the South West Land Division.

Seasonal Bushfire Outlook Autumn 2025

The Seasonal Bushfire Outlook for Autumn 2025, released by AFAC (the Australian and New Zealand Council for fire and emergency services), highlights an increased risk of fire across southern parts of Australia. In Western Australia, there is an elevated risk of bushfires in the Central West forecast district and from Albany to Eucla, including the Great Southern region.

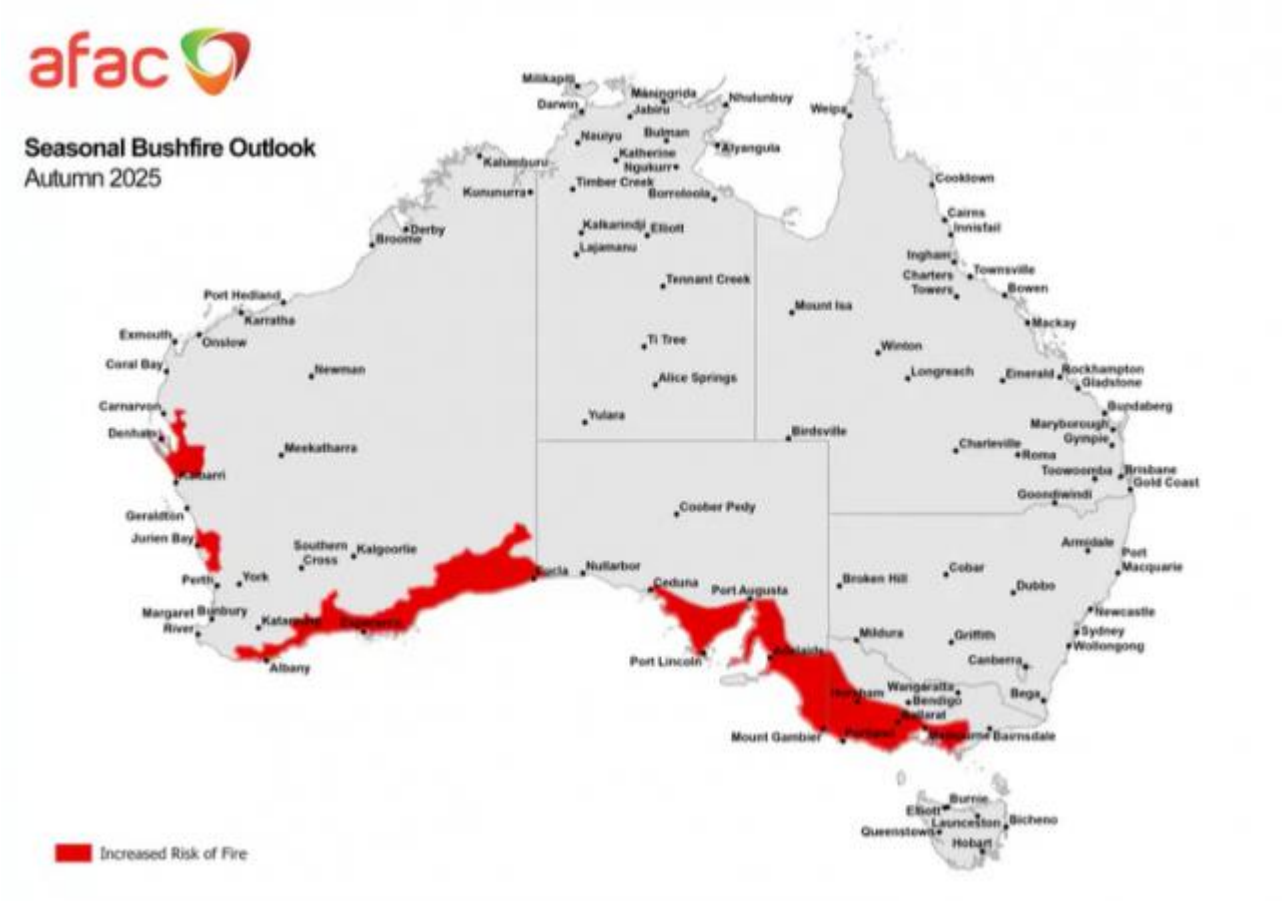

Figure 5 Australian and New Zealand Council for fire and emergency services seasonal bushfire outlook map for autumn 2025. Indicating increased risk of fire for Central West Forecast District and from Albany through to Eucla, including parts of the Great Southern.

Summary table

1 month Rainfall Outlook Central West and Central Wheatbelt	Model consensus indicates a neutral chance of exceeding median rainfall, meaning a wide range of rainfall amounts remains possible for April, May, June, July and September. There is no model consensus for August.
1 month Rainfall Outlook Remainder of the SWLD	Model consensus indicates a neutral chance of exceeding median rainfall, meaning a wide range of rainfall amounts remains possible for April, May, June and July. There is no model consensus for August and September.
3 month Rainfall Outlook Central West and Central Wheatbelt	Model consensus indicates a neutral chance of exceeding median rainfall, meaning a wide range of rainfall amounts remains possible for April to June through to July to September. However, there is no model consensus for winter (June to August) rainfall.
3 month Rainfall Outlook Remainder of the SWLD	Model consensus indicates a neutral chance of exceeding median rainfall from April to June through to winter (June to August), meaning a wide range of rainfall amounts remains possible. There is no model consensus for July to September.
Maximum Temperature Outlook	Models indicate higher than normal temperatures until at least September, which will accelerate plant growth and potentially move frost windows earlier.
El Nino Southern Oscillation (ENSO)	Currently neutral, with forecasts indicating the Pacific Ocean will remain neutral until August.
Indian Ocean Dipole (IOD)	Currently neutral. Models suggest a negative IOD developing in August, which could increase rainfall in the eastern grainbelt.
Southern Annular Mode (SAM)	Not a major driver of SWLD climate at this time of year, but can influence rainfall and temperature in winter.

Key feature: Single month rainfall forecasts

It has been requested that single-month rainfall outlooks be reported. Of the 18 seasonal climate models, 15 also provide forecasts for individual months, as shown below.

However, single-month forecasts have lower skill than three-month outlooks. This is primarily due to:

- Higher variability – Short-term weather fluctuations and transient climate events introduce ‘noise’ into single-month forecasts.
- Greater stability in seasonal forecasts – Averaging over three months smooths out variability, making the forecast more reliable.
- Climate signals vs. short-term anomalies – Climate trends, such as El Niño, are better captured in three-month forecasts, whereas single-month predictions can be disrupted by temporary weather patterns (e.g., short cold spells).

For these reasons, three-month seasonal forecasts are generally more reliable than month-by-month predictions.

Single month rainfall outlook for the Central West and Central Wheatbelt forecast district of the South West Land Division

A summary of 15 national and international models shows that 10 models indicate a neutral chance of exceeding median rainfall for April 2025. The neutral outlook continues to July and includes September, with no model consensus for August. A neutral outlook means extreme wet or dry events are less likely, and a wide range of rainfall amounts remains possible.

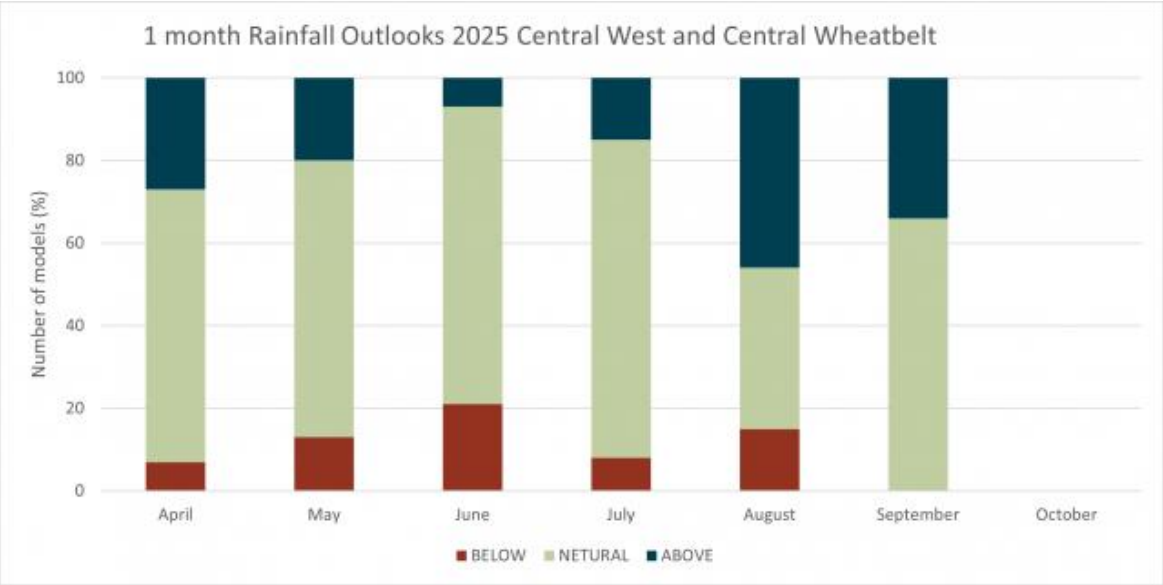

Figure 6 Single month model summaries for rainfall for the Central West and Central Wheatbelt forecast districts of the South West Land Division up to September 2025. The majority of models are indicating neutral chance of exceeding median rainfall for April, May, June, July and September, with no model consensus for August.

Single month rainfall outlook for the reminder of the South West Land Division

A summary of 15 national and international models shows that 10 models indicate a neutral chance of exceeding median rainfall for April 2025. The neutral outlook continues up until July, while there is no model consensus for August and September.

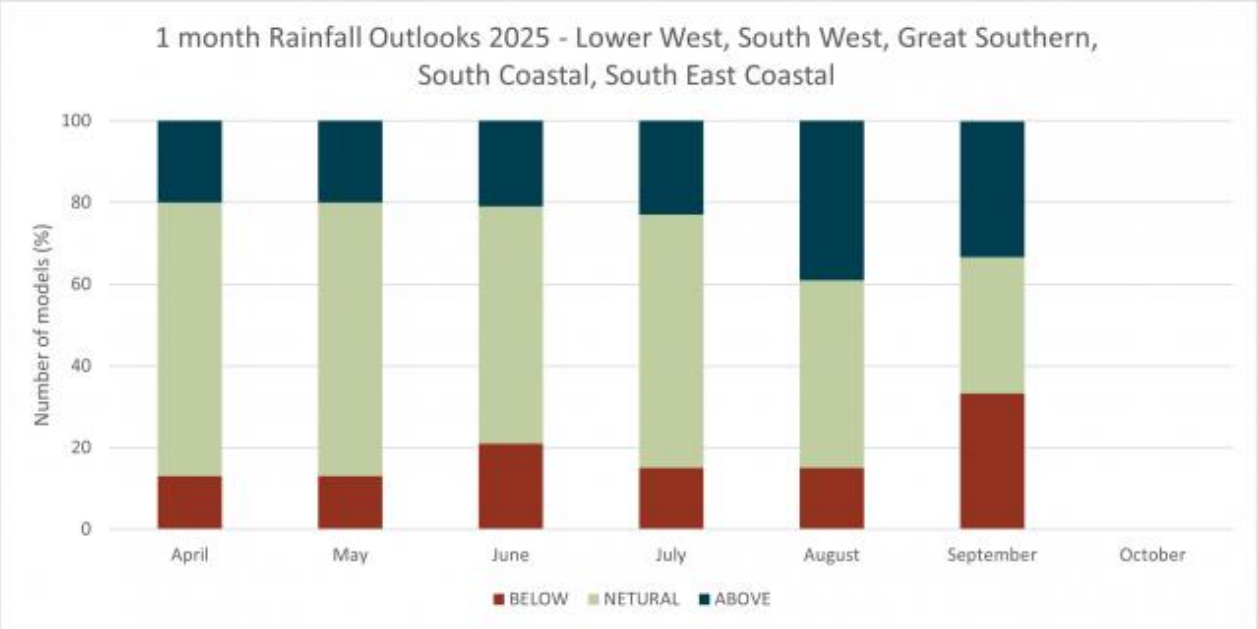

Figure 7 Single month model summaries of rainfall for the Lower West, South West, Great Southern, South Coastal and South East Coastal forecast districts of the South West Land Division up to September 2025. Majority of models are indicating neutral chances of exceeding median rainfall for April, May, June and July.

Three month rainfall outlook for the Central West and Central Wheatbelt forecast district of the South West Land Division

A summary of 17 national and international models shows that 13 models indicate a neutral chance of exceeding median rainfall for April to June 2025. This means extreme wet or dry events are less likely, and a wide range of rainfall amounts remains possible. Looking further ahead, the majority of models suggest a neutral chance of exceeding median rainfall for May to July and July to September. There is no model consensus for winter (June to August) rainfall.

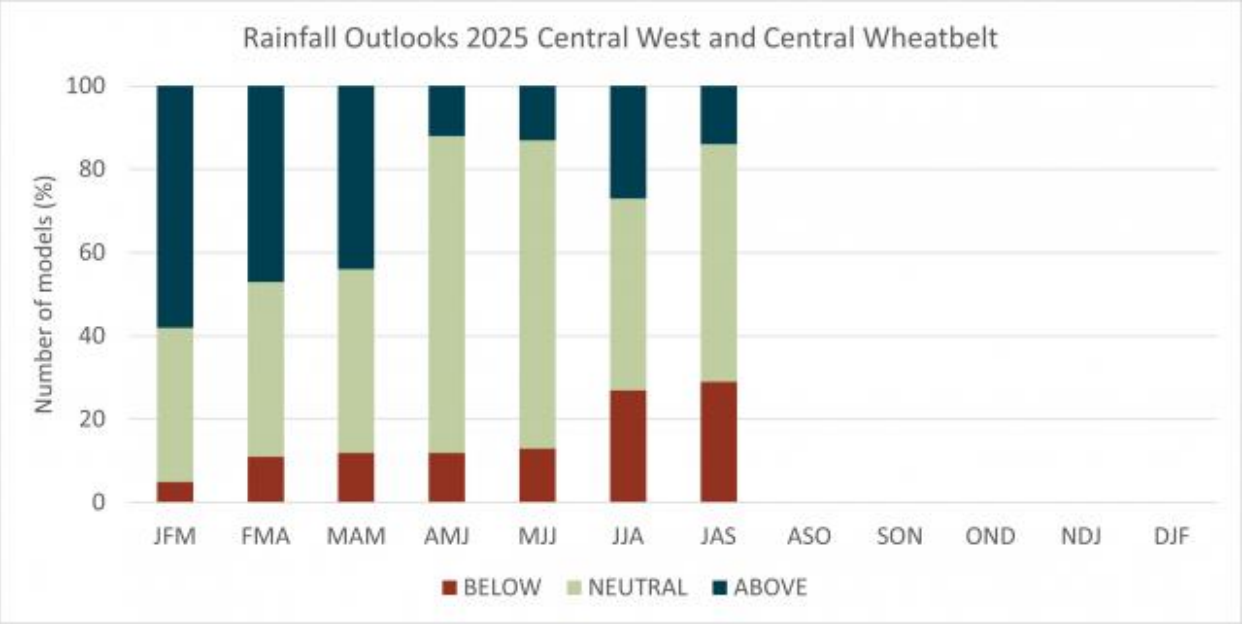

Figure 8 Model summary of rainfall outlook for the Central West and Central Wheatbelt forecast districts of the South West Land Division up to July to September 2025. The majority of models are indicating neutral chance of exceeding median rainfall.

Three month rainfall outlook for the reminder of the South West Land Division

A summary of 17 national and international models shows that that 12 models indicate a neutral chance of exceeding median rainfall for April to June 2025. This means extreme wet or dry events are less likely, and a wide range of rainfall amounts remains possible. Looking further ahead, the majority of models suggest a neutral chance of exceeding median rainfall for May to July and winter (June to August). However, for July to September, there is no model consensus.

It is important to note that model reliability decreases the further ahead the forecast extends. 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.

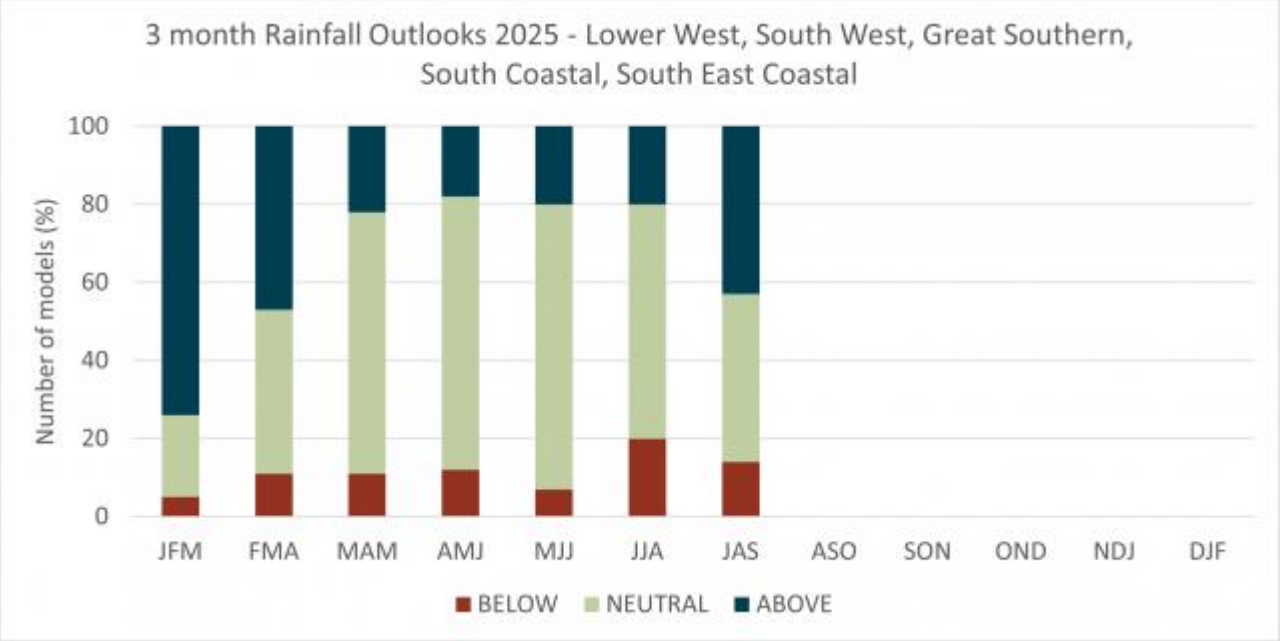

Figure 9 Three month model summaries for rainfall for the Lower West, South West, Great Southern, South Coastal and South East Coastal forecast districts of the South West Land Division up to July to September 2025. Majority of models indicate neutral chances of exceeding median rainfall.
