# Southern Annular Mode

# in Australia

The Southern Annular Mode (SAM) can affect rainfall and temperature in southern Australia. Its impact changes with the time of the year.

### **SAM** phases



SAM has 3 phases:

Positive, neutral, and negative phases

### When does it occur?



SAM can occur

at any time of the year

Positive or negative phases can last from 1 week to several months

## **Positive phase**

Westerly winds further south

## **Negative phase**

Westerly winds further north

#### **Summer**



More rainfall in parts of the east



Reduced chance of extreme heat in spring and summer



Winter

More frequent with **La Niña** 

More rainfall

in parts of

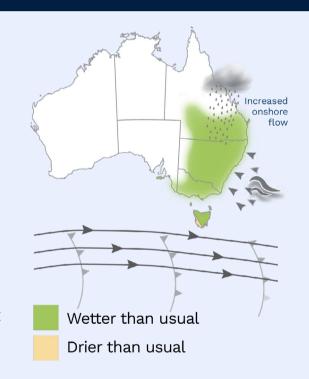
More **East Coast Lows** 

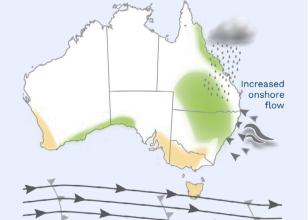
Less rainfall

far south

in parts of the

the east





Wetter than usual

Drier than usual

#### **Summer**



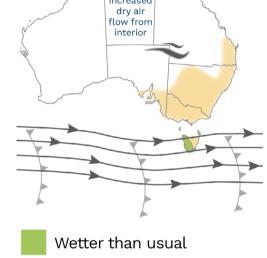
**Less rainfall** in parts of the south-east



Greater chance of heatwaves in spring in southern Australia



More frequent with **El Niño** 



Drier than usual



#### Winter



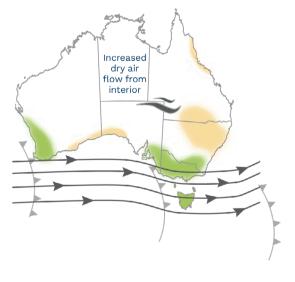
More rainfall in the south-west and south-east



Less rainfall in parts of the east



More snow in alpine areas



Wetter than usual
Drier than usual

Less snow in alpine areas

SAM is only one factor in a complex system that influences Australia's climate. The long-range forecast is the best guide to the season ahead.



