Australian Government
Bureau of Meteorology

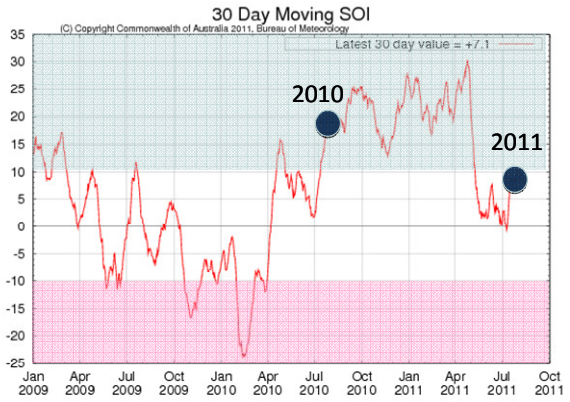
National Climate and Water Briefing Series

24 August 2011

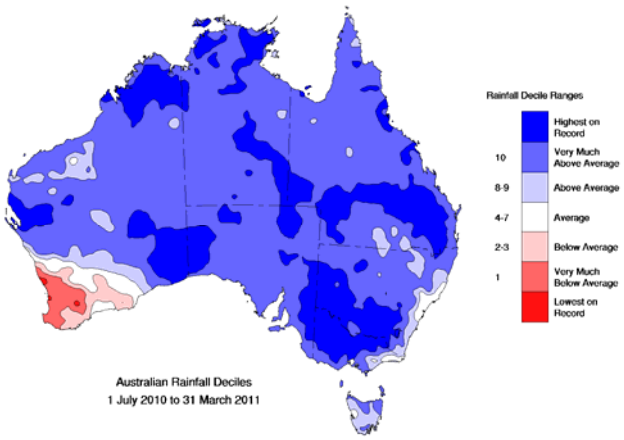
The 2010-11 La Niña

The La Niña, which has dominated Australia's climate since winter last year, declined rapidly in April and May 2011.

The graph below shows the 30-day Southern Oscillation Index values, highlighting the points in August 2010 and 2011. The area shaded in light blue represents the range of typical La Niña values. The pink shading represents El Niño values.



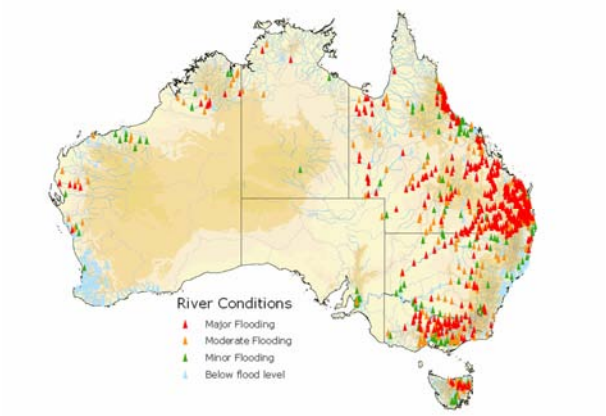
1 July 2010 to 31 March 2011 rainfall



Many areas of Australia received record rainfall during the La Niña (see above rainfall map).

The heavy rains caused major flooding in all states except South Australia (see flood map in next column).

Flood areas from 1 August 2010 to 30 April 2011



Recent conditions

- 24 per cent below average rainfall for Australia during May to July 2011
- Many high flows recorded in southeast Murray-Darling Basin in past three months despite very low rainfalls
- Deeper soil moisture remains average to above average, particularly in Queensland leading to potential for above average runoff for any significant rain that occurs

Climate drivers

- Current tropical Pacific Ocean surface temperatures slightly cooler than normal for this time of year but remain within neutral range
- Recent model outlooks and expert interpretation indicate neutral conditions may continue through spring, though the possibility of a La Niña reforming in 2011 remains. Chance of an El Niño forming this year is extremely unlikely
- Indicators monitored by the Bureau suggest that if a La Niña does reform, it is very unlikely to be as strong as the La Niña of 2010-11. The 2010-11 event was comparable in strength to the events of 1917, 1955 and 1975
- Warmer than average Indian Ocean sea surface temperatures currently driving Australian rainfall outlook for spring
- Chance of drier than normal conditions across much of southern Australia during coming season has increased due to weak positive Indian Ocean Dipole event

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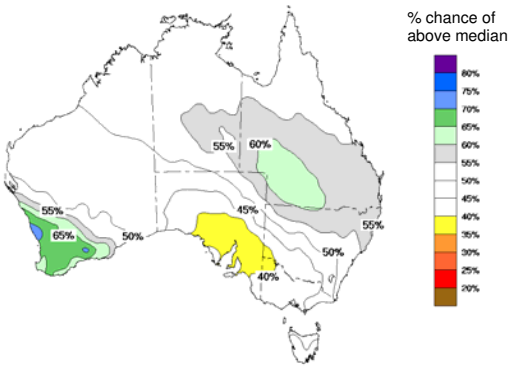
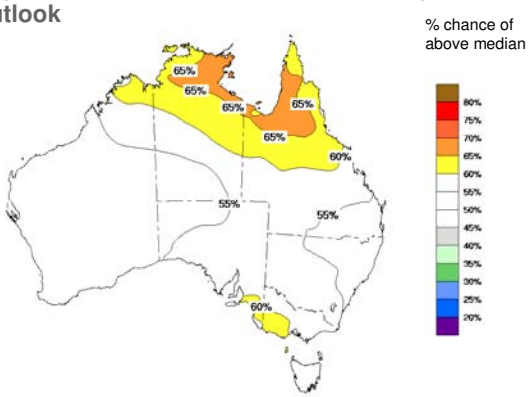
Outlook

- Increased chance of wetter than normal conditions in the southwest of Western Australia and inland southern Queensland but drier conditions more likely in parts of southeast Australia
- Warmer than average days more likely in northern tropics and western Victoria.
- Warmer than average nights expected over most of Australia
- Near median or high flows more likely at all streamflow forecast sites in the Murray-Darling Basin (see right column)

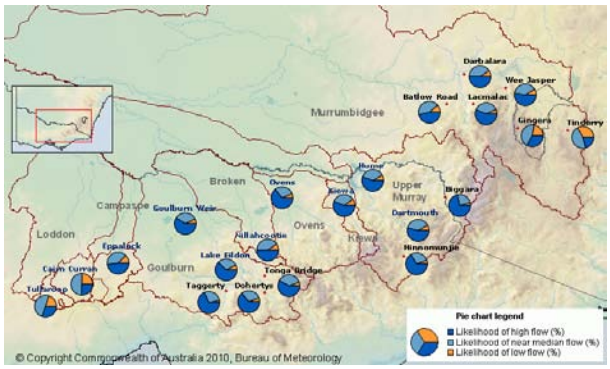
September to November rainfall outlook



September to November maximum temperature outlook



August to October streamflow forecasts



Next briefing

Please join us at our next briefing on Tuesday, 20 September 2011 at 11.00 am. It will feature the severe weather outlook for the coming months.

More information

Rainfall and temperature outlook
bom.gov.au/climate/ahead

Streamflow forecasts bom.gov.au/water/ssf

Water Storage water.bom.gov.au

Water and the Land bom.gov.au/watl

Special Climate Statements
bom.gov.au/climate/current/statements

Rainfall and temperature outlook
bom.gov.au/climate/ahead

Contacts

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