



National Climate and Water Briefing Series

15 December 2011

The La Niña is likely to continue through summer. Early indications are that it will be accompanied by wet conditions particularly along the east coast and western Australia. With full storages and high soil moisture levels, there is elevated flood risk in some areas.

2011 likely to be 10th warmest year globally

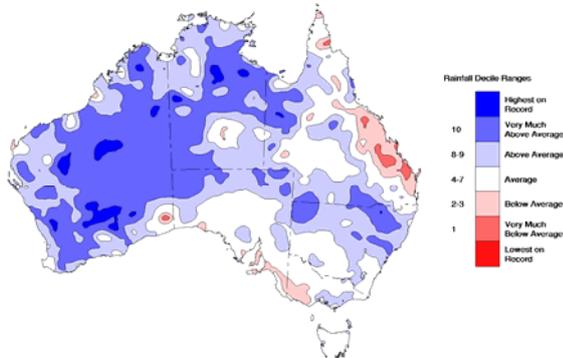
Preliminary data from the World Meteorological Organization (WMO) suggests that 2011 is likely to be the 10th warmest year on record and have the second-lowest Arctic sea ice extent.

While global temperatures in 2011 were not as warm as in 2010, they have been warmer than any previous strong La Niña year.

For more information, see the *Provisional Statement on the Status of the Global Climate* from the WMO (www.wmo.int under News).

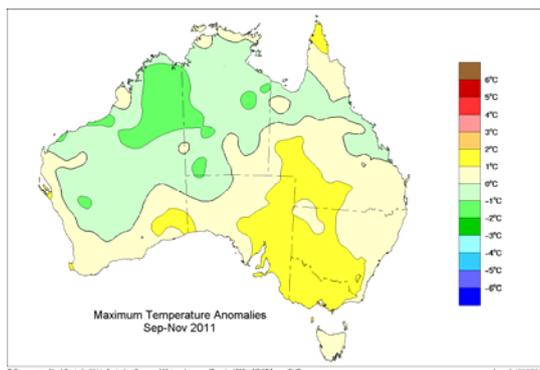
Recent conditions

Rainfall: September–November 2011

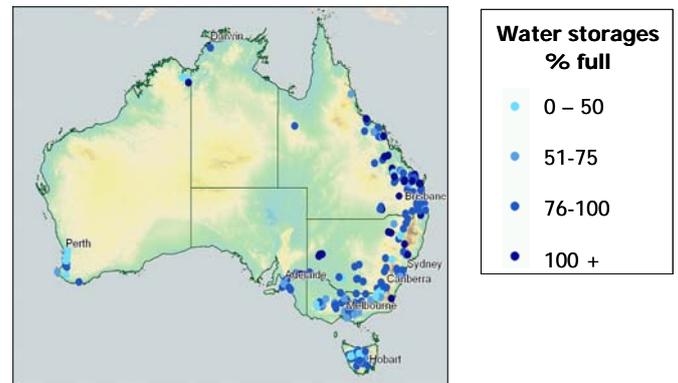


Western Australia had good rainfalls in spring (see map above) with early season rainfall in the north. Along with this came cooler temperatures (see map below) in the west while most of south and eastern Australia had slightly above average temperatures.

Maximum temperature anomalies: September–November 2011



Many water storages already full

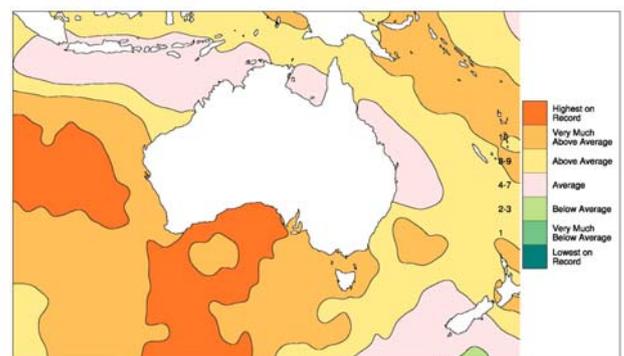


Climate drivers

In 2010 the heavy rainfall was driven by La Niña with a strongly positive Southern Oscillation Index and warm waters to the northwest and northeast of Australia.

The La Niña story is different in 2011. The Southern Oscillation Index is still positive but not as strong as 2010 and ocean temperatures in northwest and northeast of Australia are not as warm. However the Indian Ocean is warm and so are waters in the extra tropics outside equatorial regions. This is causing exceptional rainfall in Western Australia which looks likely to continue.

Sea surface temperature deciles: September–November 2011

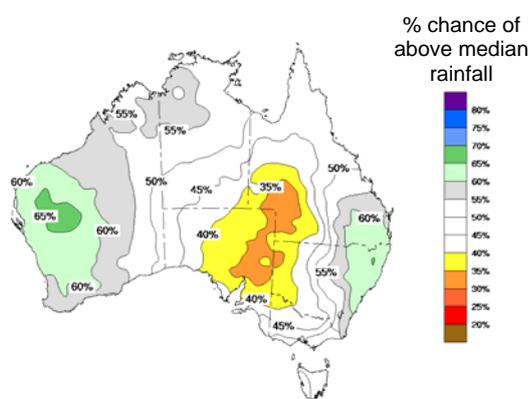


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Climate outlook: January–March 2012

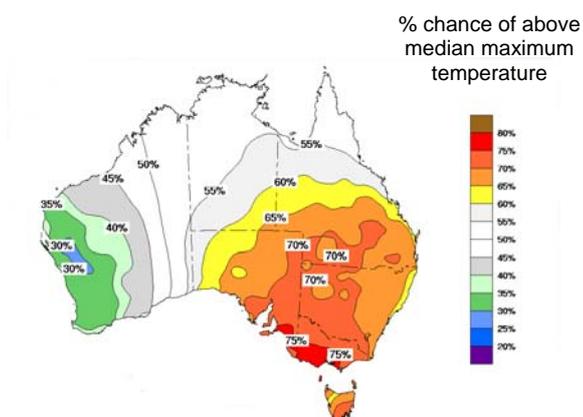
Rainfall

- La Niña likely to continue through summer
- Wetter conditions likely in the west and parts of far eastern Australia



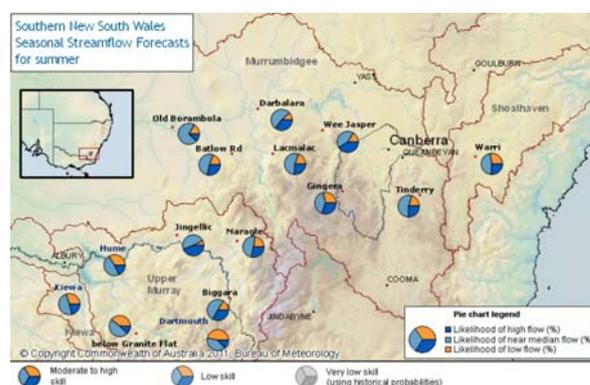
Maximum temperature

- Warmer days likely in the south and east with cooler days in the west
- Warmer nights likely over the northern half of Australia and in the west



Streamflow outlook: December–February 2012

- Water storages and soil moisture levels are high over most of the country. This combined with mild La Niña conditions will lead to elevated flood risk
- Streamflow forecasts for summer favour near median flows for most of the forecast sites in Victoria and high flows for majority of forecast sites in New South Wales
- Forecast skill scores for summer are moderate to high for majority of sites



More information

Update on La Niña conditions – ENSO Wrap-up
www.bom.gov.au/climate/enso

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

Seasonal streamflow forecasts
www.bom.gov.au/water/sf

Australian rainfall and river conditions
www.bom.gov.au/australia/flood

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