



PIRSA Primary Producers SA Seasonal Climate Outlook briefing

May 2018

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7 May 2018

Drier conditions for the year to date

Rainfall has been below average for the eastern half of the state, in particular the south-east and Riverland. Rainfall has tended to be near average in the western half. Little significant rainfall has fallen in eastern and southern South Australia since mid-December 2017.

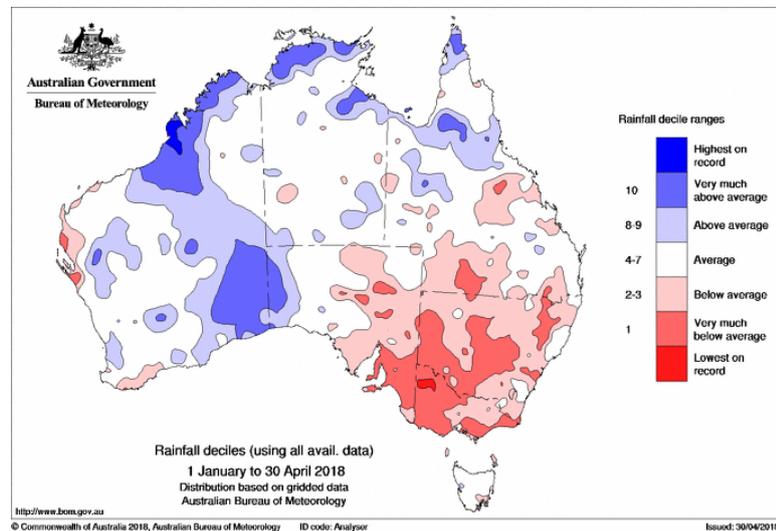


Figure 1: January to April 2018 rainfall

Record April temperatures

April 2018 has been the hottest April on record for South Australia, and likely for Australia, with temperatures tending 4-6°C above average.

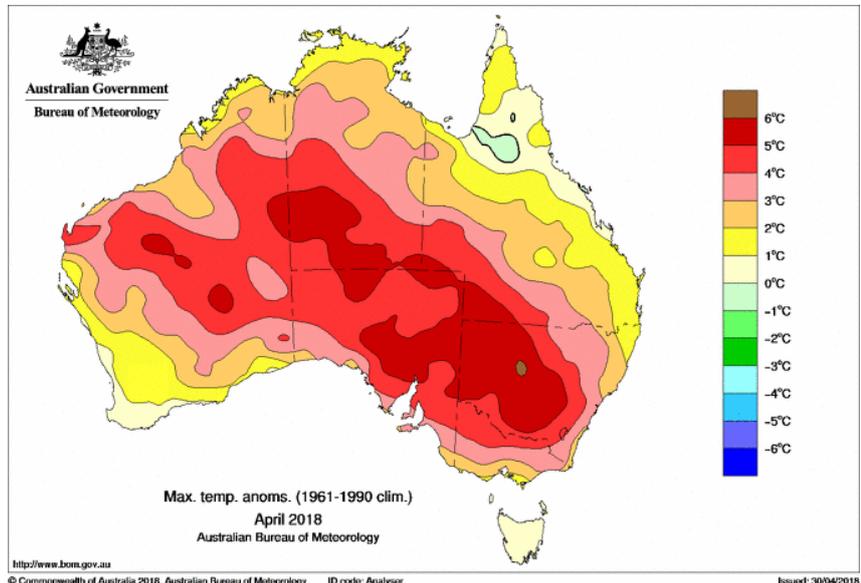


Figure 2: Summer 2017/18 maximum temperature deciles



Soil moisture levels are drier than average across much of South Australia. The combination of little significant rainfall and well above average temperatures has left soil moisture levels below average, particularly the eastern half of the state, for this time of the year. Only a few locations in the Mount Lofty Ranges and SE SA have seen rainfall amounts to date typical of the break of the season for new pasture growth and cropping farming (from <http://www.bom.gov.au/water/landscape>).

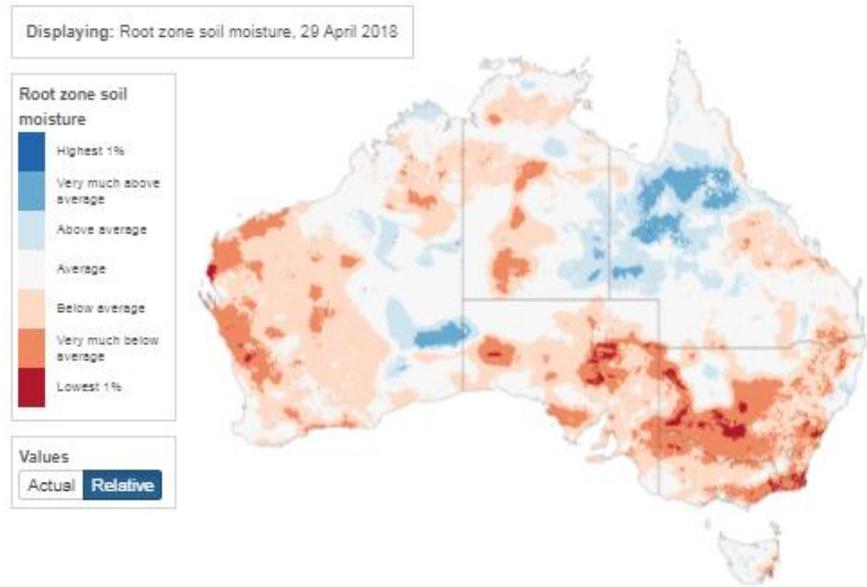
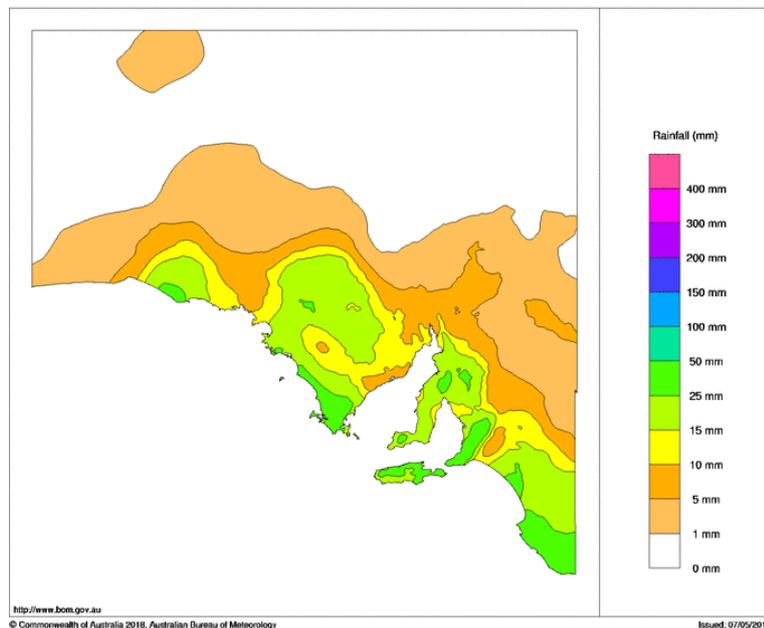


Figure 3: Current difference from average of soil moisture in top 1m soil layer (Australian Landscape Water Balance modelling)

Break of the cropping 2018 season

Recent rainfall has seen rainfall totals of 25mm or more across Lower Eyre Peninsula, south-eastern districts, Kangaroo Island, the Mount Lofty Ranges and some areas in the Mid-North. Little follow up rainfall is expected in the next 10 days.

South Australian Rainfall Totals (mm) Week Ending 7th May 2018
Australian Bureau of Meteorology

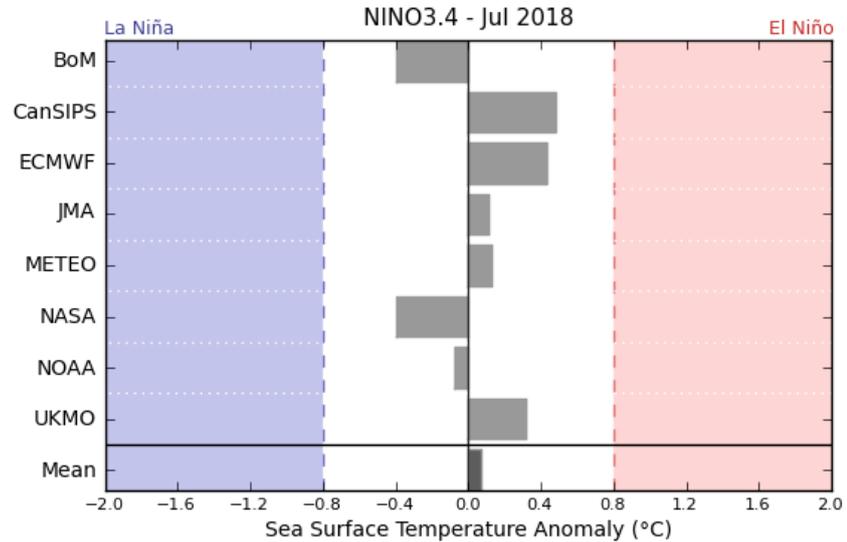




Climate influences and outlook

The Pacific Ocean (El Niño/La Niña) is in neutral state

The weak La Niña event that started in mid-December 2017 was declared over during March 2018. Neutral conditions are currently expected to continue through 2018 in the Pacific Ocean, bearing in mind that this time of the year outlook accuracy is at a minimum.

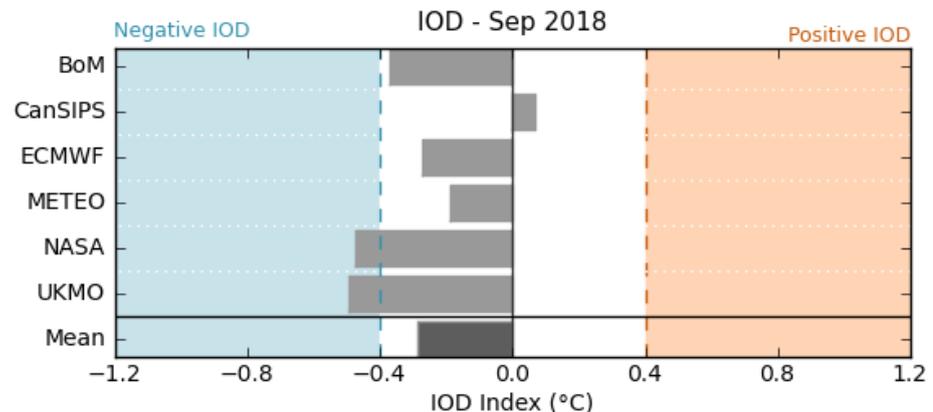


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Figure 4: El Niño/La Niña outlook for July 2018 (forecast difference from average of central Pacific Ocean (Nino 3.4) sea surface temperature from Bureau and international seasonal outlook modelling systems)

Some outlook models are forecasting negative Indian Ocean Dipole conditions for July to October 2018

There is some risk of a negative Indian Ocean Dipole event developing during July to September 2018. 2 out of 6 outlook models are moving into negative IOD status over that period. Negative IOD events increase rainfall and see cooler than average temperatures across that period, and may see increased numbers of cold frontal events and severe weather, bearing in mind outlook accuracy is low at this time of the year.



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Figure 5: Outlook for the Indian Ocean Dipole for September 2018 from a range of Bureau and international models.



Medium term outlook for May 2018

May is likely to be warmer than average. Rainfall is likely to be drier than average in the eastern half of the state, tending nearer average in the west. Overall tropical activity supporting significant rainfall looks to be weak, though does increase in the third week of the month.

Current Seasonal Outlook –May to July 2018

The current Bureau of Meteorology Seasonal Outlook for May to July 2018 indicates drier than average conditions are slightly more likely across most of the state, in particular in SE SA.

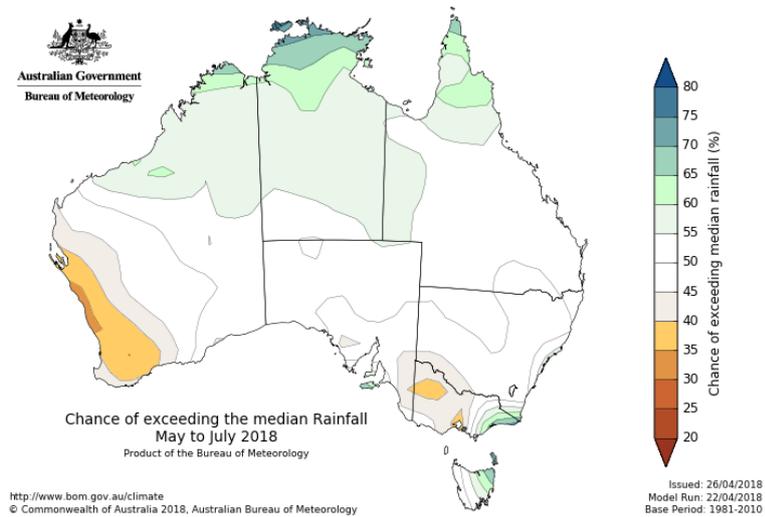


Figure 6: Percentage likelihood of above median rainfall for May to July 2018

Overall for May to July 2018 warmer than average temperatures are more likely across agricultural South Australia. Warm conditions during May are underneath much of this signal, with near average temperatures likely for winter 2018.

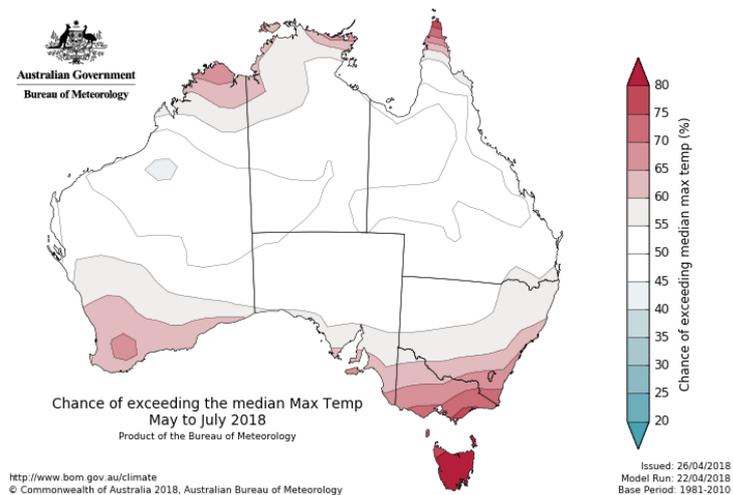


Figure 7: Percentage likelihood of above median maximum temperatures-May to July 2018



Drought conditions

Above average rainfall through 2016 and summer 2016/17 led to all long term rainfall deficiencies in South Australia disappearing. The generally drier conditions this year have led to some areas of rainfall deficiency over the 9 to 12 month timeframe in central SA.

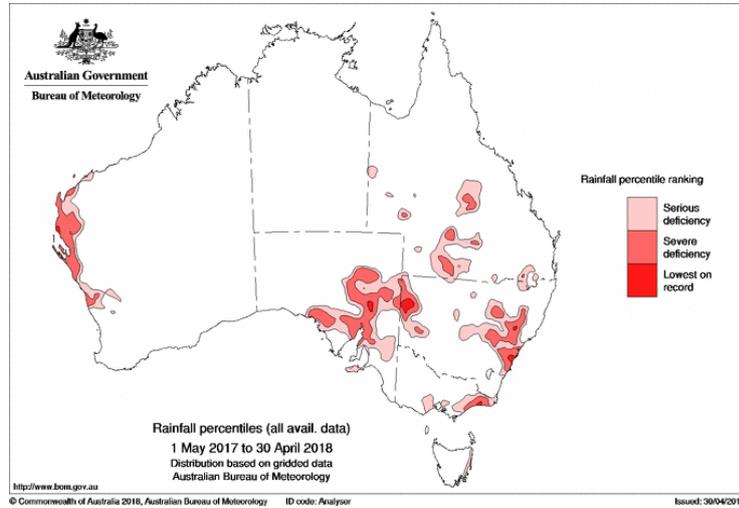


Figure 8: Areas of rainfall deficiencies from March 2017 to end of February 2018