

Monthly Climate Statement – February 2018

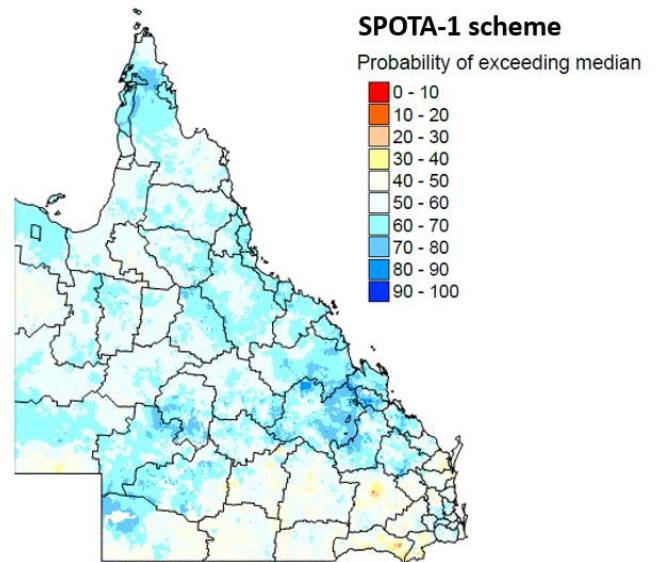
Key messages

- Leading up to summer, sea-surface temperatures indicated a slightly higher than normal probability of exceeding median summer rainfall for much of Queensland.
- This outlook was based on sea-surface temperatures in the Pacific Ocean which are strongly related to the El Niño-Southern Oscillation and Queensland summer rainfall.
- The El Niño-Southern Oscillation has been in a La Niña phase, but three-month (November to January) rainfall has been below average across much of Queensland.
- The current La Niña is likely to persist through summer.

DES provides outlooks for summer rainfall based on an objective analysis of Pacific Ocean SSTs. The analysis for the current summer indicated a slightly higher than normal probability of exceeding median rainfall across much of Queensland (see map below). This outlook for summer rainfall took into account SSTs leading up to summer in selected regions across the Pacific Ocean.

Probability of Exceeding Median Summer Rainfall

November 2017 – March 2018
based on the SPOTA-1 Index
as at November 1, 2017



Summary as at 13 February 2018

The Department of Environment and Science (DES) monitors sea-surface temperature (SST) anomalies in key regions of the Pacific Ocean over autumn, winter and spring and provides objective outlooks for summer (November to March) rainfall on this basis. Based on conditions prior to summer, **the Science Division of DES considered that the probability of exceeding median summer rainfall was slightly higher than normal for much of Queensland.**

Rainfall in Queensland over spring and summer is influenced by the El Niño-Southern Oscillation (ENSO) — a coupled atmospheric and oceanic phenomenon which is persistent at seasonal timescales. ENSO is currently in a La Niña phase, a view supported by international agencies including the Australian Bureau of Meteorology. The current La Niña conditions are likely to persist through summer and are characterised by cooler than average SSTs in the Niño 3.4 region of the Pacific Ocean, coupled with quite positive values of the Southern Oscillation Index (SOI). Over the last three-months (November to January), the average SST anomaly in the Niño 3.4 region was -0.8°C , and the average value of the SOI was $+5.6$.

When interpreting seasonal climate outlook information it should be appreciated that seasonal climate outlooks are probabilistic, rather than deterministic, in nature. For example, if an outlook is described as having a 70 per cent probability of exceeding median rainfall, then there will also be a 30 per cent probability of below median rainfall. Furthermore, in cases where there are high probabilities for a specified outcome, it does not mean that a less probable event will not occur.

For more information please visit the Queensland Government Long Paddock website at: www.longpaddock.qld.gov.au/seasonalclimateoutlook. Alternatively please contact Stuart Burgess at: stuart.burgess@dsiti.qld.gov.au.