

Monthly Climate Statement — January 2017

Key messages

- Sea-surface temperature anomalies continue to reflect a weak La Niña pattern.
- Southern Oscillation Index values fell to near-zero over October and December, but have risen over the last 30 days.
- Rainfall anomalies for October to December have ranged from extremely-high to extremely-low across the state.

Summary as at 15 January 2017

The Department of Science, Information Technology and Innovation (DSITI) provides seasonal outlooks for the Queensland summer (November to March) from April to November each year. DSITI monitors sea-surface temperature (SST) anomalies in key regions of the Pacific Ocean over winter and spring and provides objective outlooks for summer rainfall based on this basis. For the current summer (November to March 2016/17), the Science Division of DSITI considered that, **for most of Queensland, the probability of exceeding median rainfall was higher than normal.**

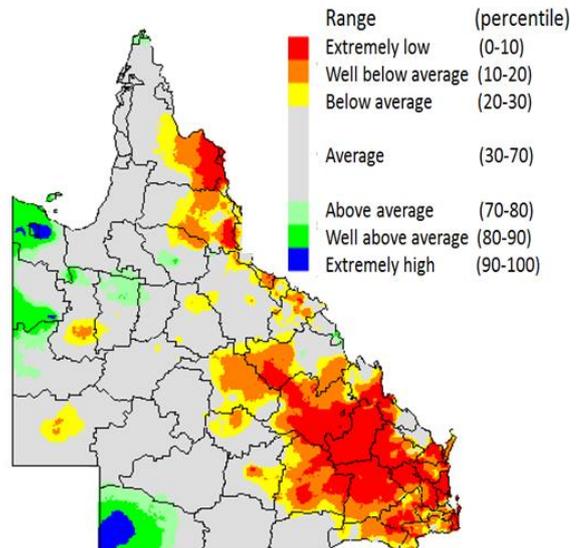
The SST regions that DSITI monitors are linked to the El Niño-Southern Oscillation (ENSO) phenomenon. They also reflect a more slowly changing, extra-tropical SST signal. Leading into summer, SSTs in the Niño 3.4 region of the central equatorial Pacific were cooler than normal and bordering on La Niña thresholds. In contrast, SSTs in the south-western Pacific were warmer than normal, reinforcing an emerging La Niña SST pattern. The Southern Oscillation Index (SOI) was also tracking close to La Niña thresholds.

So far this summer, the border-line La Niña pattern has persisted, with monthly SST anomalies in the Niño 3.4 region remaining close to La Niña thresholds (-0.6°C and -0.4°C for November and December respectively and -0.4°C for the first two weeks of January). The warmer than normal SSTs in the south-western Pacific have also persisted. Although SOI values were near-zero for November and December, the 30-day average SOI value has risen to +6.6 as at 15 January.

For the last three-month period (October to December), rainfall across Queensland has ranged from well-above average in some western areas to well-below average across much of the south-east (see map opposite).

Rainfall Percentile

Oct to Dec 2016



Relative to historical records from 1890
www.LongPaddock.qld.gov.au

Prior to summer, the Bureau of Meteorology advised that eastern Queensland will most likely experience a near-average tropical cyclone season (November to April). While land-falling tropical cyclones have not yet occurred in Queensland this summer, it should be noted that the risk of tropical cyclone occurrence is normally highest from January to March.

It should be noted that seasonal outlooks are probabilistic, rather than deterministic, in nature. For example, if an outlook is described as having a 70 per cent probability of above median rainfall, there is also a 30 per cent probability of below median rainfall. Although outcomes with a high probability may be more likely, this does not mean that less probable events will not occur in any given year. In issuing the outlook for the current summer DSITI advised that an increased probability of above-median rainfall for Queensland will not necessarily result in above-median rainfall throughout all of the state.

Given the dry start to summer across much of the south-east, it is now unlikely that rainfall across this part of the state will be above-average for the forecast period (November to March).

For more information, please visit:

www.longpaddock.qld.gov.au/seasonalclimateoutlook

or contact Stuart Burgess at:

stuart.burgess@dsiti.qld.gov.au