

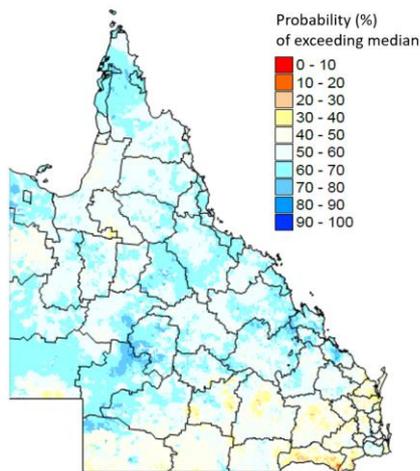
Monthly Climate Statement – March 2020

Key messages

- The Bureau of Meteorology and international agencies continue to classify the state of the ocean and atmosphere as 'ENSO-neutral'.
- Following a dry spring, there was an extremely dry start to summer across most of Queensland.
- A late start to the northern Australian monsoon in mid-January produced high rainfall totals in many parts of the State.
- Wet conditions have continued over much of Queensland during February and March.

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. Leading up to summer, the Science and Technology Division of DES considered that the probability of exceeding median summer rainfall was near-normal for much of Queensland (see map below).

Probability of exceeding median summer rainfall
for November 2019 – March 2020, as at 1 November 2019

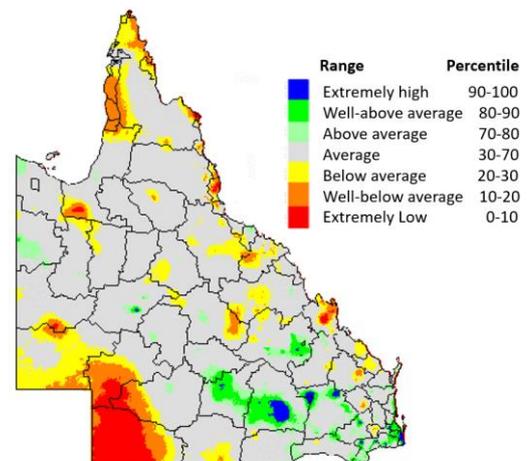


Readers should note that seasonal outlooks are stated in terms of probabilities. For example, an outlook may be stated as 'a 60 to 70 per cent probability of above median rainfall'. Such a statement should be interpreted as also meaning a 30 to 40 per cent probability of below median rainfall. In cases where outcomes with a high probability may be more likely, this does not mean that less probable events will not occur in any given year.

The most closely monitored driver of Queensland rainfall is the El Niño-Southern Oscillation (ENSO) phenomenon. Climate scientists monitor several ENSO indices, including the atmospheric Southern Oscillation Index (SOI) and SST anomalies in the central equatorial Pacific Ocean. The SOI value was negative throughout 2019 and the SST anomaly in the Niño 3.4 region of the central Pacific was warmer than average for most of the year. The three-month SOI value to the end of February has remained negative (-2.9) and the SST anomaly in the Niño 3.4 region has remained warmer than average (+0.5°C). Whilst the SST anomaly in the Niño 3.4 region has remained close to El Niño thresholds, the Bureau of Meteorology and international agencies currently classify conditions as being 'ENSO-neutral'.

Following a dry spring, there was an extremely dry start to summer across most of Queensland. A late start to the northern Australian monsoon in mid-January produced high rainfall totals in many parts of the State, with January rainfall totals being well-above average across much of inland Queensland. Wet conditions continued over much of south-eastern Queensland during February, with record rainfall recorded at some locations. Ex-tropical cyclone Esther inundated much of northern Australia in late February and, in early March, brought record rainfall to parts of south-western and far-western Queensland. Despite the wet conditions since mid-January, rainfall percentiles for the three-month period from December to February were within the near-average range across most of the State (see map below).

Queensland rainfall percentiles
December 2019 to February 2020



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