

Research Matters

Climate Council Report: *2017: Another Record-Breaking Year for Heat and Extreme Weather*

Background

This Research Matters is based on the Climate Council report *2017: Another Record-Breaking Year for Heat and Extreme Weather*. The Climate Council is a non-profit independent and apolitical organisation which was founded to “provide independent, authoritative climate change information to the Australian public”. The Council is made up of “expert Councillors, staff, volunteers and supporters” who work to provide journalists and the public with authoritative independent reporting on issues of climate. Their website is www.climatecouncil.org.au.

Key matters raised in research - a summary

The year 2017 was recorded as the third warmest year in Australia, with at least 205 heat records broken across the country. 2017 was also included (along with 2014, 2015, and 2016) as among the “four hottest years ever recorded in the 138-year global temperature archive”. These unprecedented temperatures in Australia, and indeed across the globe, led to an increase in extreme weathers events such as bushfire/wildfire, hurricanes, and flooding.

Key findings in the report include:

- Records show that the 10 hottest years globally were between 1998-2017, with 17 of the 18 hottest years happening since 2000.
- In Australia, seven of the hottest years on record have occurred since 2005, with the last five years being five of the warmest years.
- In 2017, Sydney and Brisbane experienced their warmest summers on record; winter was the warmest ever recorded nationally for average maximum temperatures; autumn was the seventh warmest autumn recorded nationally; and spring was the sixth hottest recorded year for national average temperatures.
- Extreme weather events unfolded across Australia as a result of temperature increases, including heatwaves (especially in South Australia and New South Wales); bushfires (New South Wales, ACT, and Victoria); and cyclones (Queensland and NSW).
- It wasn't just humans that were affected by the weather: due to extreme weather, the Great Barrier Reef experienced its second deadly coral bleaching event, and more than 2000 flying foxes were recorded to have died as a result of heatwave.

Who is it useful for?

The report is easy to read and well referenced, making it highly accessible. It would be useful for primary, high school, and tertiary educators who engage with their students around local and global weather events, Australian geography topics, and climate change topics.

University students would find it useful for the same reasons. It would also be crucial reading for NSW State Government agency and Local Government staff working on climate change mitigation and adaptation.

Where can you find it?

Full report: www.climatecouncil.org.au/2017-heat-report

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