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Australian Government
Department of Home Affairs

National High Risk Weather Season Briefing 2021/22

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Emergency Management Australia

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Welcome <state> HRWS preparedness briefing

During this briefing

1. Overview of the 2020/21 HRWS
2. Overview of COVID RFAs for 2020/21
3. BOM update for the 21/22 HRWS
4. ADF update inc JTG arrangements
5. NRRRA update
6. Enhanced EMA (\$92 million on the federal budget)
7. National Emergency Declaration
8. AGCMF update

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National severe weather outlook: October 2021–April 2022 summary

Impact	Likelihood compared to recent decades	
 Widespread flooding		More likely
 Coastal flooding / erosion		More likely
 Severe storms		Similar
 Bushfire risk		Similar, increased for parts of Qld/NSW
 Heatwave		Similar spring, increased summer
 Tropical cyclones		More likely
 Marine heatwave		More likely
 Drought		Less likely
 Dust		Less likely

Summary of selected hazards from a broadscale, seasonal perspective (based on most likely, relevant climate conditions and drivers). Updated 6 October 2021

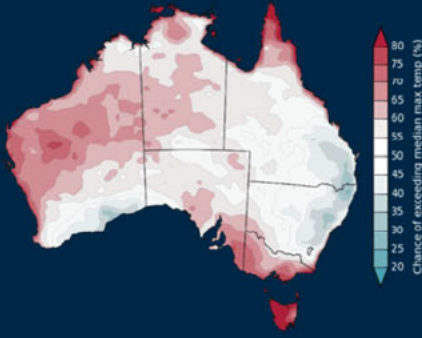
Climate influences for coming months

- El Niño-Southern Oscillation (ENSO)
 - A La Niña ALERT has been issued, meaning around 70% chance of La Nina in 2021
 - La Niña is likely to develop in November
- Indian Ocean Dipole (IOD)
 - A weak negative IOD is currently underway
- Sea surface temperature (SST)
 - Water temperatures around northern Australia are currently above-average
 - Sustained warm waters can significantly influence the local climate
- Long-term trends
 - Australia's climate has warmed by ~1.44°C over the 1910–2019 period. Rainfall across northern Australia during its wet season (October–April) has increased since the late 1990s. In recent decades there has been a trend towards a greater proportion of rainfall from high intensity short duration rainfall events especially in northern Australia.
 - These trends can become more apparent in the outlooks when other climate drivers are neutral

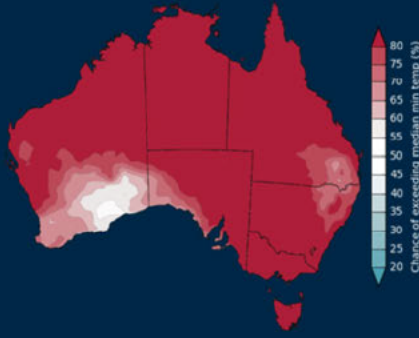
November 2021 – January 2022 outlook

Chance of above median at 7 October 2021

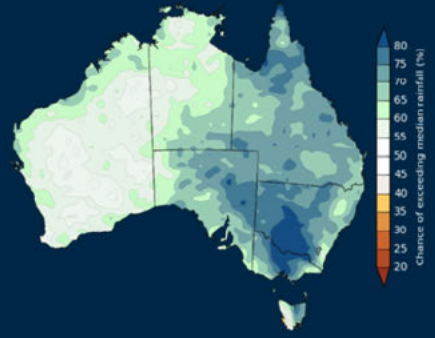
Maximum temperature



Minimum temperature



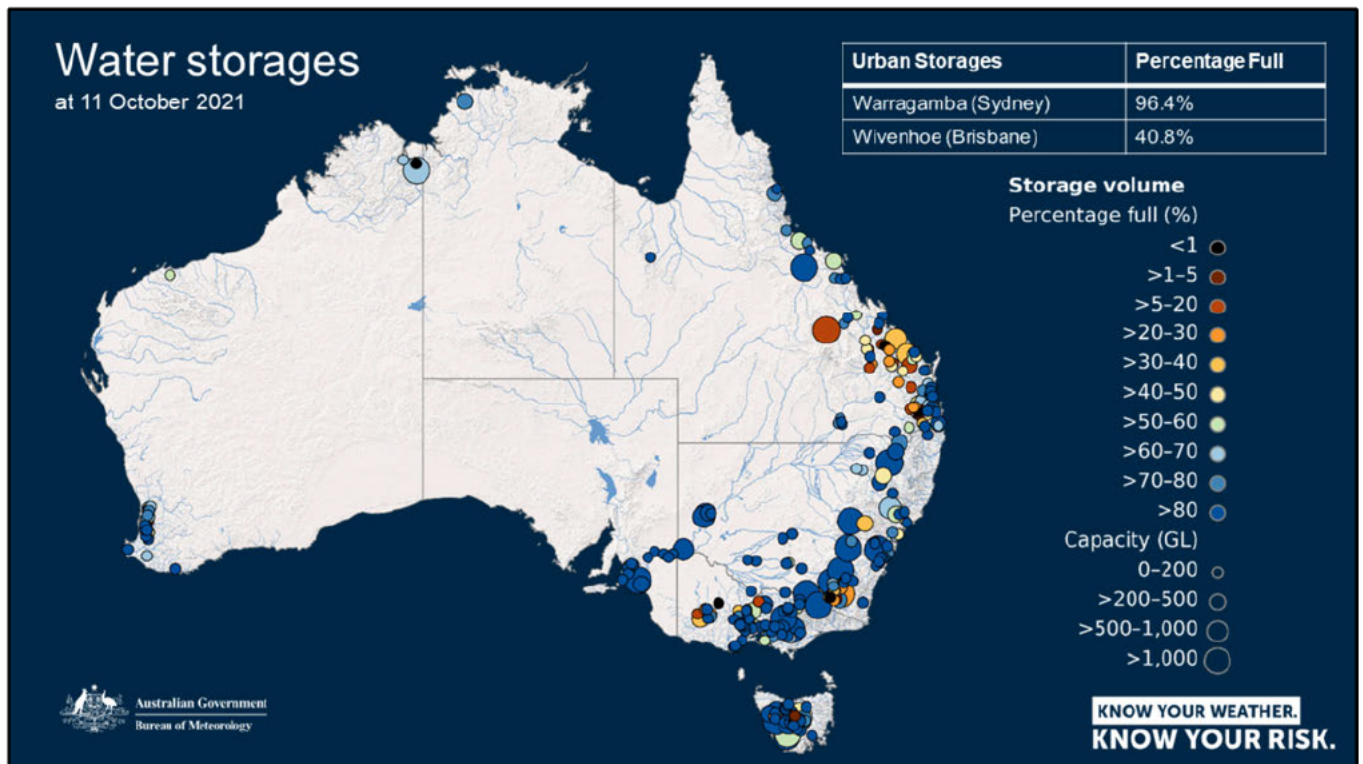
Rainfall



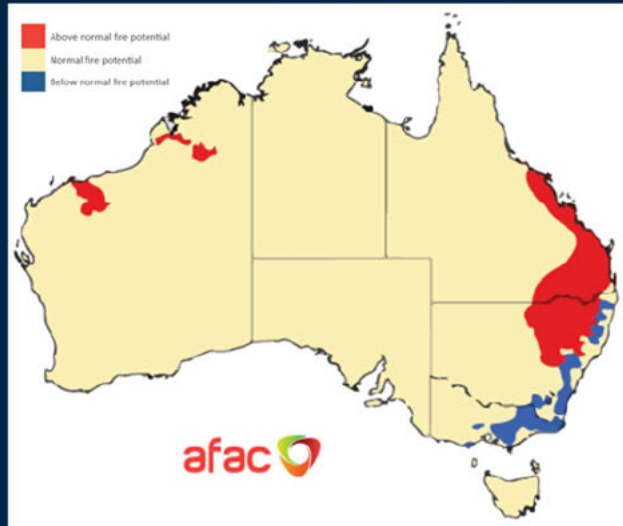
- Warmer than average daytime temperatures are likely in parts of northern Australia and the far south-east; near to below median elsewhere
- Warmer than average minimum temperatures are very likely for most regions apart from southern Western Australia
- Near- to below-median rainfall in Western Australia and western Tasmania, mostly above-median rainfall elsewhere

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KNOW YOUR RISK.**

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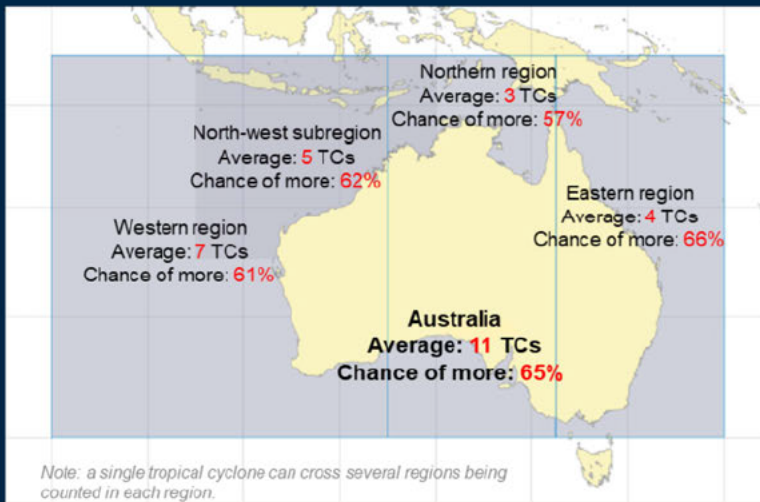
Australian Seasonal Bushfire Outlook: September–November 2021



- In areas that receive above-average rainfall during spring, enhanced grass growth is likely
- This may lead to above-normal grassfire risk during summer, if weather conditions are favourable for vegetation curing
- Lower risk is expected for parts of the east coast with lower fuel loads due to 2019–20 fires
- Normal fire risk does not mean there is no risk, and areas designated as normal fire potential may still experience fire

Bushfire Seasonal Outlook for Spring 2021

Tropical cyclone seasonal outlook 2021–22



- Warm waters around northern Australia and the sea surface temperature pattern across the tropical Pacific Ocean, means average to slightly above-average tropical cyclone numbers (tropical cyclones and tropical lows) are expected in 2021–22
- The average number of tropical cyclones per season since 1969–70 is 11, but with fewer tropical cyclones (~9 per season) in recent decades
- An increasing proportion of severe tropical cyclones and associated high rainfall intensity has been observed in recent decades.

For the tropical cyclone season 2021–22:

- Around 65% chance of an above-average number of tropical cyclones across the Australian Region
- Based on the 8 negative IOD years since 1970 the average date of the first TC (18 November) is 3 weeks earlier than usual (5 December)
- In La Niña years, the first Australian landfall typically occurs early December, ~3 weeks earlier than usual

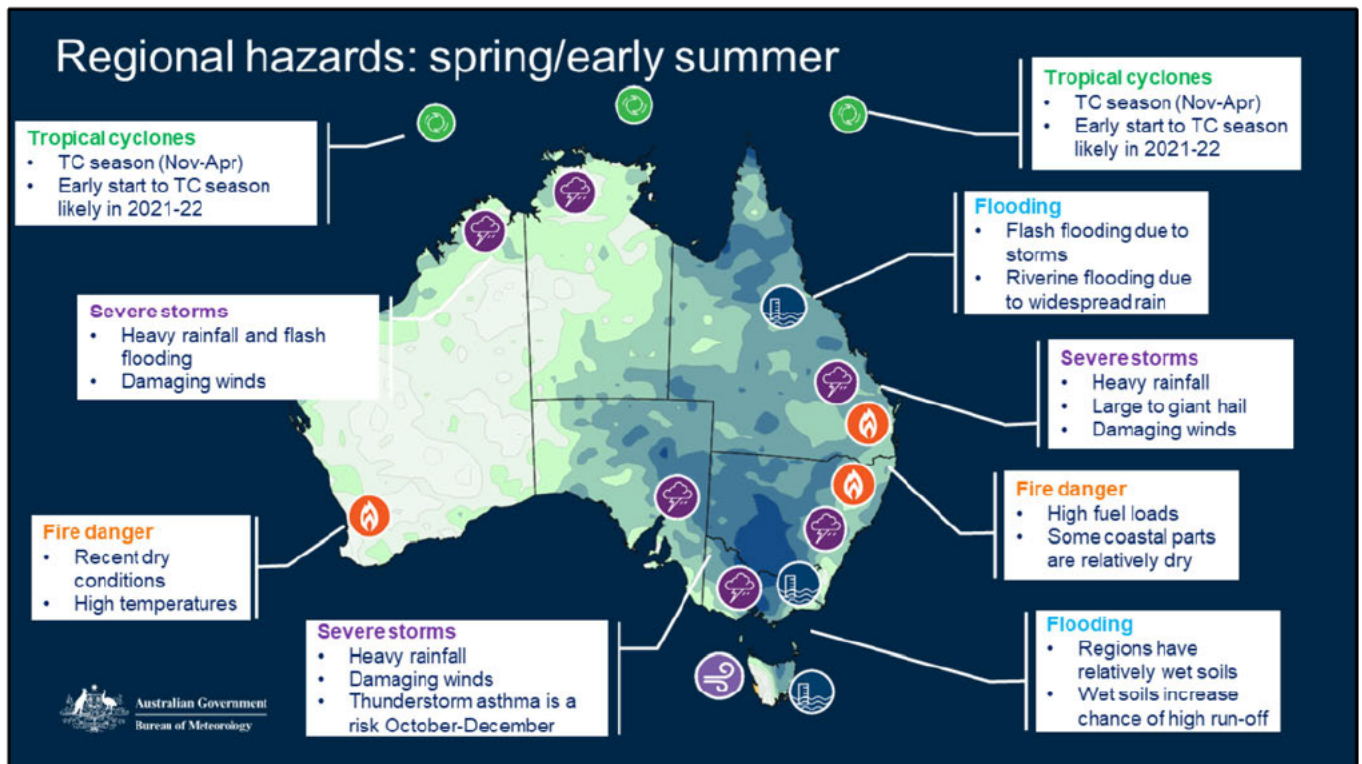
Valid at 7 October

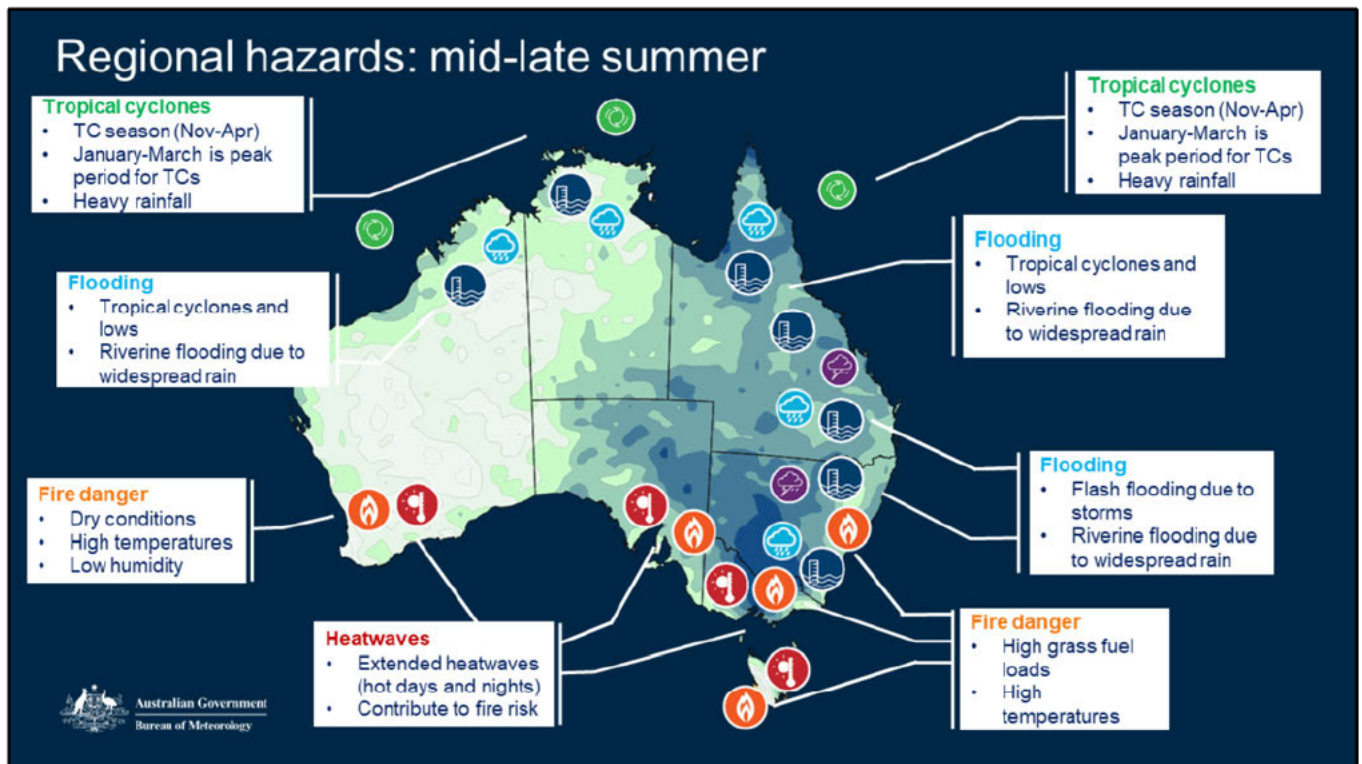
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La Niña and negative IOD both have correlations with the following across northern Australia:

- Earlier than normal monsoon onset (at Darwin)
- Above average total rainfall averaged across northern Australia during the northern wet season (October–April)
- Above average number of seasonal TCs across Australian region
- Earlier than average occurrence of first TC of season
- Earlier than average occurrence of first landfalling TC of season
- Only times multiple severe TCs have made landfall on Queensland was during La Niña

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National Preparedness

- Enhancing EMA – inc National CoP
- Establish National Recovery and Resilience Agency
- Establishment of Australian Climate Services
- Review Australian Government Crisis Management Framework (AGCMF)
- Embed National Coordination Mechanism to operationalise AGCMF
- 15 preparedness briefings and scenario discussions
- 8 Leadership meetings with State & Territory Service Chiefs
- Disaster Reference Booklet for MP's
- HRWS Scenario Exercise for Government
- Scenario Exercise for ANZEMC on National Emergency Declaration
- National Emergency & Essential Services cross border deployment protocol-COVID-19
- \$4m National Large Air Tanker (LAT) - \$26m National Aerial Fire Fighting
- \$2m Australian Warning System awareness program
- \$20m implement Australian Fire Danger Rating System

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