

For Official Use Only

MS19-001040

To: Minister for Energy and Emissions Reduction (For Information)

SUMMER READINESS s22

Recommendation:

1. s22

Noted / Please discuss

Minister:

Date:

Comments:

Clearing Officer: Sent: 4/12/2019	Tim Wyndham	Assistant Secretary, Energy Security Branch	s22
Contact Officer:	s22	Director, Emergency Management and Preparedness Section	s22

Key Points:

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3. The outlook for this summer is for an elevated risk of bushfires (particularly in the east), an increased risk of heatwaves, and dust storms (refer Attachment A). s22

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s22 heightened risks s22 , the key areas being:

- a. hotter, drier conditions and reduced rainfall

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Attachments

A: Summer 2019-20: Weather Outlook











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Attachment A

SUMMER 2019-20: WEATHER OUTLOOK

- The Bureau of Meteorology (BoM) has provided advice on the outlook for the remainder of 2019 and into early 2020.
- The outlook ([Figure 1](#)) is for an increased likelihood of bushfire activity (particularly in the east), an increased risk of heatwaves, and an increased probability of dust storms. Warm and dry conditions are expected to continue through summer. This consists of:
 - above average daytime and overnight temperatures across Australia, increasing the summer heatwave risk and placing extra pressure on generation assets;
 - below average rainfall during the remainder of December. Summer rainfall is likely to be below average in parts of the east but above average in parts of the north-west;
 - continued bushfire activity in much of eastern Australia and parts of the south. Any days with strong winds will increase this risk.
 - : The Forest Fire Danger Index (FFDI) is high, especially around the interconnector corridors for the Queensland-New South Wales interconnector (QNI) and the New South Wales-Victoria interconnector; and
 - dust storms in central New South Wales and in the vicinity of the QNI. Dust storms can be a hazard to the operability of the transmission network as it can cause arcing on high voltage transmission lines.

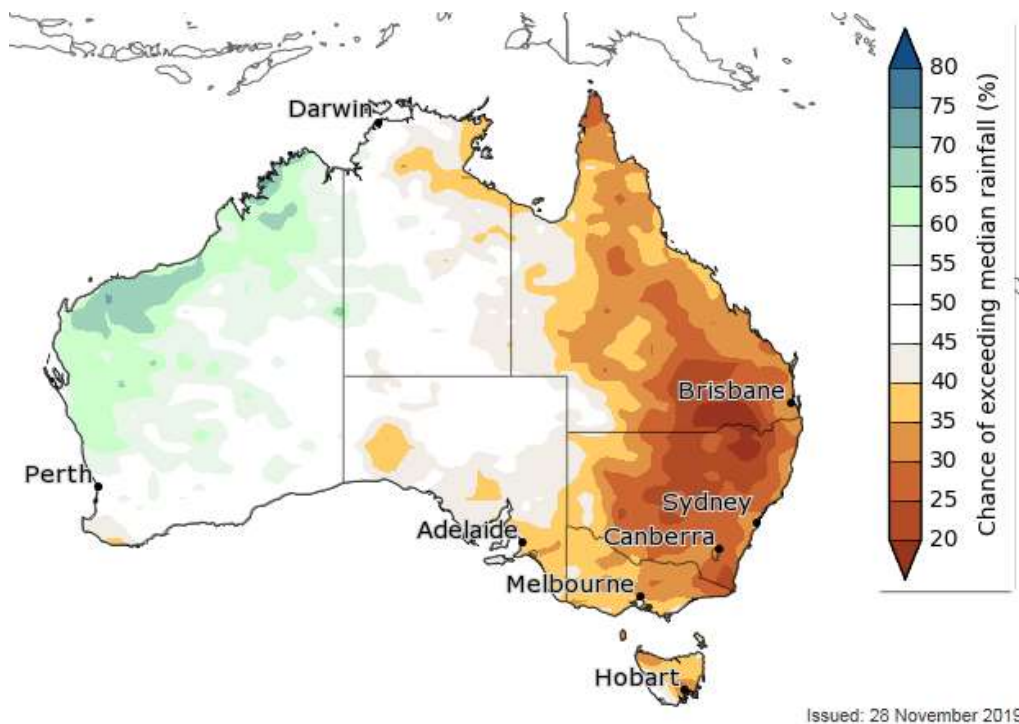
Figure 1: Extreme and Hazardous Weather Outlook: Summer 2019-20 (Source: BOM, 22 November 2019)

Impact	Likelihood compared to most years
 Bushfire activity	More likely 
 Heatwave	More likely 
 Widespread flooding	Less likely 
 Severe storms	Similar 
 Drought	More likely 
 Dust	More likely 
 Marine heatwave	Similar 
 Tropical cyclones	TBA 
 Coastal flooding / erosion	More likely 

Rainfall outlook

- There has been below average rainfall across most of the continent during November. However, the three-month outlook ([Figure 2](#)) indicates the rainfall deficit is likely to be largely confined to eastern Australia, including Tasmania.

Figure 2: Chance of exceeding median rainfall – December 2019 to February 2020
(Source: BOM, 28 November 2019)

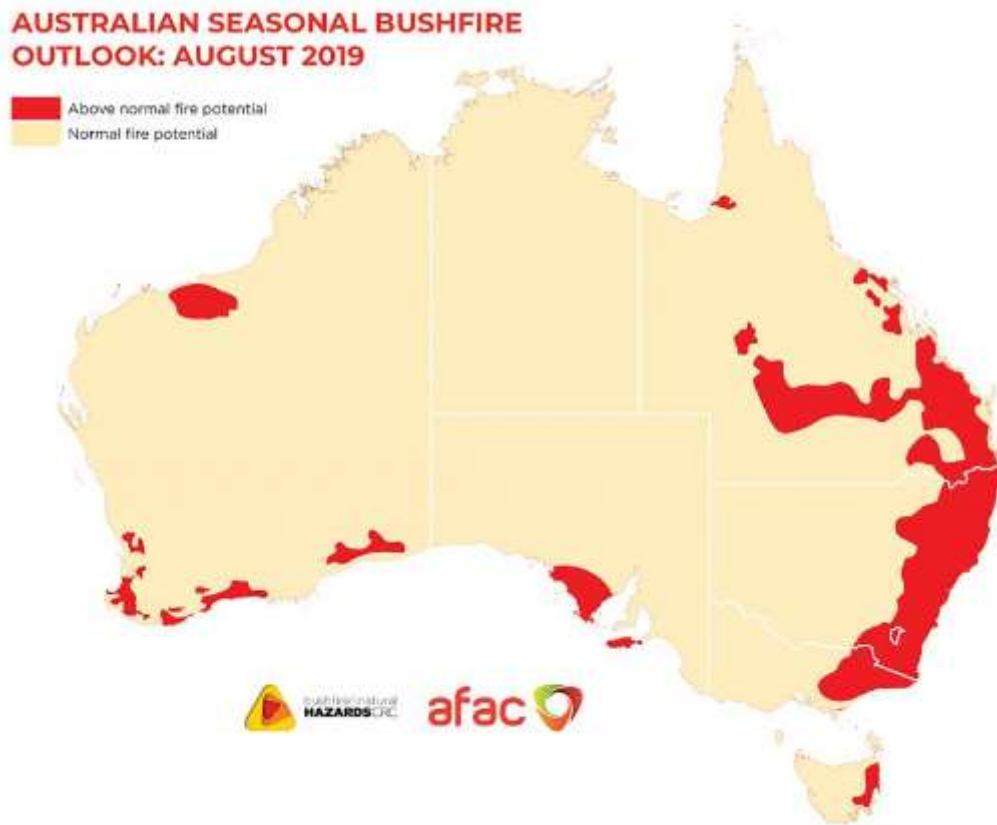


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Bushfire Activity

- An early start to the bushfire season has occurred, notably in the south-east, and as predicted by the Bushfire and Natural Hazards Cooperative Research Centre ([Figure 3](#)).
- The remainder of the fire season has the potential to be active across Australia, following on from a very warm and dry start to the year.
 - The bushfire season is lengthening with more dangerous fire weather days occurring within a season, particularly in the south and east.
 - The FFDI is tracking similar to those conditions preceding the Ash Wednesday and Black Saturday events.
- On 28 November 2019, the Australian Government Crisis Coordination Centre reported that, since 9 September 2019, the total area burnt across New South Wales, Queensland, Victoria, Western Australia, South Australia and Tasmania exceeds 2,119,362 hectares.
- The dry landscape means warm and windy weather has increased the fire risk particularly: along the east coast of Queensland, New South Wales, Victoria and Tasmania; in elevated areas; and parts of southern Western Australia and South Australia.

Figure 3: Australian Seasonal Bushfire Outlook (Source: Bushfire and Natural Hazards CRC, August 2019)

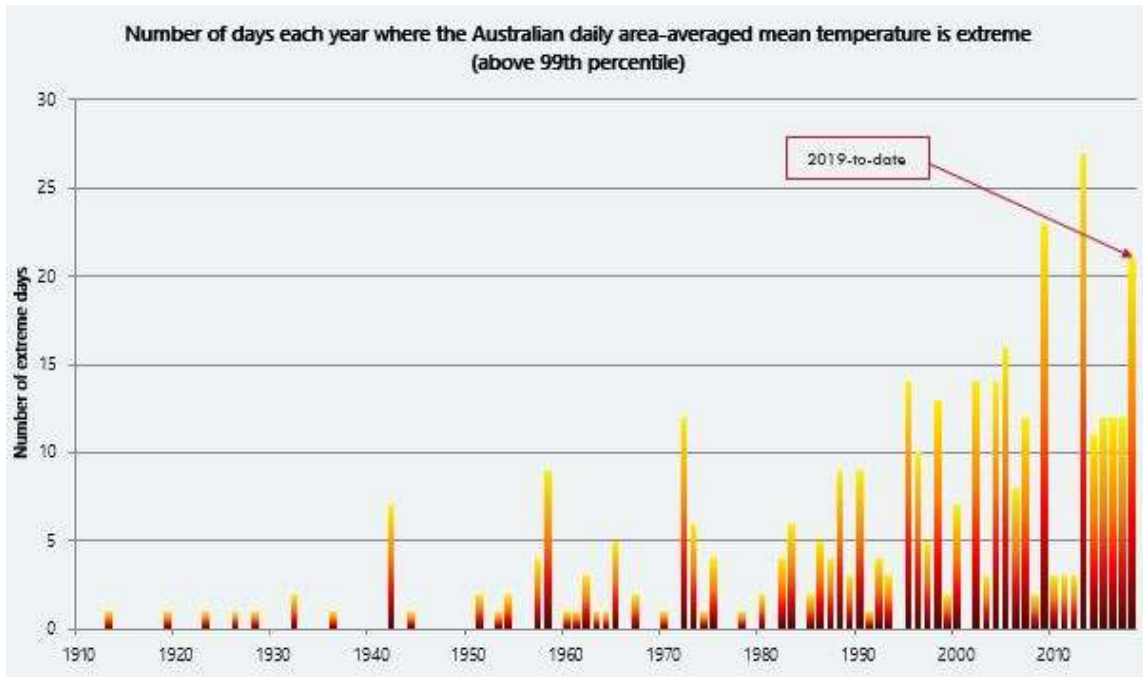


Heatwaves

- There is an increased risk of extreme heat developing across central, southern and eastern Australia. More than 20 extreme heat days have occurred in 2019 to date (Figure 5), and all capital cities s22 have exceeded their average number of days of extreme heat.
- BoM have advised that low rainfall, high daytime temperatures and very much below average soil moisture levels across most of the continent have primed the landscape for heatwaves over summer.

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Figure 5: Number of days each year where the Australian daily area-averaged mean temperature is extreme (above 99th percentile) (Source: BOM, 22 November 2019)



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Key risks in 2019-20 include:

: Heightened risk of bushfires, heatwaves and dust storms in eastern Australia.

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Attachment C

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- Maximising the availability of transmission networks: AEMO has coordinated with transmission network service providers (TNSPs) to ensure that transmission networks are available to carry the required levels of electricity supply.
- : Key risks for transmission infrastructure include outages due to bushfires and dust storms, both of which are forecast to be more severe than average in 2019-20.

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