

# Black Summer: Why Australia had to change how it fought bushfires

The way Australia fights fires has changed dramatically since the Black Summer blazes and those who think backburning is the ans

wer are stuck in a “time warp”.



[Charis Chang](#)  
[CharisChang2](#)

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## **Megyn Kelly: Biden ‘fantasises’ about unity while focusing on ‘most divisive’ issues**

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A year ago Australians couldn’t believe what they were seeing.

Sydney Harbour shrouded in smoke, red apocalyptic skies, footage of fires rising up and [“crowning” among the trees](#), a [firenado](#) in Queensland and [burned koalas being rescued](#) from the ashes of their once-safe homes.

Australians were seen fleeing to beaches in tourist towns and had to be [evacuated by helicopters and Navy ships](#) as the flames came dangerous close.

It almost seems unbelievable that these scenes were playing out across Australia just one year ago.

By this time in 2019 the blazes were already well underway, with the first fires having started in August. On November 8 for example, there were already an unprecedented 17 fires in NSW for which emergency warnings had been issued.

By the time they were done the Black Summer bushfires had ripped through 24 to 40 million hectares of bushland across multiple states and territories — nearly double the area of any previous major bushfire in a fire season.

The Royal Commission said this had “set a new benchmark for an extreme fire season in Australia’s temperate forests”.

The fires claimed the lives of 33 people including a volunteer firefighter whose [truck was overturned by a “fire tornado”](#) and [two other volunteer firefighters who died in a truck accident](#) and whose deaths [brought a holidaying Prime Minister home](#).

The World Wide Fund for Nature estimates that nearly three billion animals including mammals, birds and reptiles were either killed or displaced by the fires.

The bushfire smoke also caused its own public health emergency, cloaking cities like Sydney and Canberra in an oppressive haze, which Asthma Australia estimated was responsible for more than 400 deaths. At one point Canberra had the [worst air quality in the world](#) and it was more than 20 times above hazardous levels.

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Sydney Harbour Bridge was blanketed in smoke and the sky was tinged orange during last season’s bushfires. Picture: Joel Carrett/AAP *Source: AAP*

The crisis continued for months and it was not until late February that most of the blazes were extinguished.

This year the outlook is less grim, although a bushfire has already [razed half of Fraser Island in Queensland](#).

But we have not seen the last of these unprecedented scenes and even though this is an “La Nina” year, which usually brings cooler temperatures, cyclones and rain, Mother Nature is continuing to surprise us.

Last month Sydney broke a heat record in place since 1960 when it recorded temperatures of 40C on back-to-back days starting on Saturday, November 28 and continuing the following Sunday.

This was the first time the city had recorded two 40C days in a row for any month, not just in November. The [last time this happened was in January 1960](#).

November was also recognised as the [hottest November on record globally](#), with the European Union’s Copernicus Climate Change Service saying it was the warmest such month since its records began in 1979.

“What this says is that bushfire risk can change virtually overnight,” former Fire & Rescue NSW Commissioner Greg Mullins told news.com.au.

### **‘THE WHOLE PROFILE HAS CHANGED’**

Mr Mullins said this year’s fire season was not expected to be as bad as last year because the moisture profile in forests had changed but it was still likely there would be bad grass fires in the western districts of NSW and in the northern districts of Victoria. There was also the probability of blazes in Western Australia’s southwest.

“We could still get some bad days, although we probably won’t have bad weeks or bad months,” he said.

However, Mr Mullins warned that things could change overnight because Australia was experiencing things like flash droughts and odd days of extremely high temperatures — like what occurred in Sydney last month.

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The Black Summer fires ripped through up to 40 million hectares of bushland. Picture Rohan Kelly. *Source: News Corp Australia*

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“So if we get a series of heatwaves, we could all of a sudden be back dealing with major bushfires, although they wouldn't be as widespread as last year.”

It's just one more change those in the field have had to adapt to as Australia's Black Summer bushfires overturned people's assumptions and forced authorities to rethink how they respond to emergencies.

Mr Mullins said the fires had forever changed how Australia deals with the fire threat in this country.

“I've watched this for 50 years and the whole profile has changed,” he said.

“Those people who say it's all about fuel reduction, well I'm sorry but you're stuck in a time warp from 50 years ago and you don't understand the issues and you're not bothering to read or digest what's happened in the climate, because it has all changed.”

## **WE CAN'T RELY ON TRADITIONAL METHODS ANYMORE**

The ferocity of the Black Summer bushfires meant that hazard reduction and backburning were less effective at keeping blazes under control. In fact, in the dangerous conditions backburning got away from crews and made fires worse.

Mr Mullins said every bushfire inquiry in all the states impacted including NSW, Queensland, Victoria and South Australia, as well as the federal Royal Commission found

hazard reduction was not as effective as it used to be because the fire weather is so much more extreme.

“During extreme and catastrophic conditions, fires just jump over areas that are burnt or simply burn through them — they don’t slow the fires down anymore,” he said.

“Hazard reduction was our biggest mitigation tool for bushfires for the last century and it’s been rendered far less effective because of climate change.”

The inquiries also pointed to the smaller window of time that authorities now had to conduct hazard reduction due to the hotter and drier weather.

“There are very small periods of the year now where we can safely burn off,” he said.

Another limitation is the difficulty in burning enough forest to make any sizeable difference to the risk.

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There’s less time to do hazard reduction and it’s less effective against high intensity fires.  
Picture: Lisa Maree Williams/Getty Images  
Source: Getty Images

Mr Mullins pointed out that last season’s fires burnt through about 5.4 million hectares of broadleaf forest in NSW and Victoria — about 21 per cent of the forest. Only a fraction of this could realistically be burned during hazard reduction operations.

“Most of the workforce in NSW are volunteers so hazard reduction happens mostly on weekend, you would have to triple the workforce to do enough burning and this is just impractical,” he said.

He also noted that hazard reduction also impacted other animals living in the bush.

“Should wipe out another three million species? We are not the only species on the planet and it’s all about balance,” he said.

“(Those in favour of hazard reduction) are advocating no balance and it’s quite infuriating when so-called experts say this stuff.”

Similarly, backburning, which is a last-resort measure aimed at setting containment lines in the face of a major blaze was also less effective.

“They didn’t work last year because it was so dry, the fires just got away,” Mr Mullins said.

“Climate change is taking away the traditional tools we have.”

On top of this, fires started by dry-lightning have also become more common thanks to changes to the climate.

Dry-lightning started numerous fires during the 2019–20 season including the Gospers Mountain fire in the Wollemi National Park that burned through 512,000 hectares and was the largest forest fire ever recorded in Australia. The fire began on October 26, 2019 and was not extinguished until February 2020 when heavy rains arrived.

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The Gospers Mountain fire burned through more than 500,000 hectares. Picture: Dan Himbrechts/AAPSource: AAP

“The only thing we can do is act differently, and focus on fast initial attacks using ground crews and water bombing aircraft,” Mr Mullins said.

“However, a proportion of the fires will still get away from us in the worst weather conditions.”

## **DRONES, SATELLITES AND ‘FAST-ATTACK STRATEGIES’**

Mr Mullins believes Australia is now acting to embrace ‘fast-attack strategies’ that have been used to good effect in places like Canada, France, Spain and parts of the United States.

This places the focus on spotting fires when they first begin and sending crews in quickly, along with water bombing aircraft to extinguish blazes.

NSW will trial the dispatch of water bombing helicopters as soon as a fire is identified rather than waiting for ground crews to investigate first.

“This is good but it all costs money, it's very expensive,” Mr Mullins said.

“You will have aircraft in the air for many false alarms but it’s the price we’ve got to pay because of climate change driving worse fires.”

Last year Mr Mullins and other former emergency services leaders struggled to be heard over their concerns [more water-bombers would be needed](#) to tackle what they correctly predicted would be a horror fire season.

But the Morrison Government has now agreed to provide an extra \$11 million a year to the National Aerial Firefighting Centre for more large air tankers for firefighting efforts and to support the fleet’s costs.

The private sector is also making huge investments to develop new technology using satellites, infrared detection systems, drones and other methods to spot fires.

Andrew Forrest’s Minderoo foundation is providing a \$70 million grant to the “Fire Shield” program that wants to use satellites, infrared sensors and drones to identify and extinguish fires within an hour by 2025.

The Australian National University Institute for Space will put \$1 million towards developing a satellite system to detect forest fuel load and vegetation moisture that will help predict where fires are likely to start, so controlled burns can be better targeted.

Meanwhile, Ninox Robotics says its drones can already search large areas for fires, map fire-fronts in real-time and guide firefighters.

A national program to detect ignitions and accurately monitor all fire edge intensity and progression across Australia is being supported by all state and territory governments except Western Australia.



**Is Australia doing enough to stop climate change and prevent worsening bushfires?**



No, we need to do more  
Yes, we're doing enough  
Climate change doesn't have anything to do with bushfires

### **‘PUT THE MONEY IN THE RIGHT PLACE’**

Mr Mullins warned that while changing fire response strategies will help, it's not the panacea.

“The only thing that will help eventually is driving down emissions and driving down the risk,” he said.

Mr Mullins has welcomed the softening in Prime Minister Scott Morrison's comments on climate change but said it was “nowhere near enough”.

“At the very least we need to match the states and territories and adopt a net zero 2050 target, and then beat it by at least a decade,” he said.

The so-called “gas led recovery” must also be abandoned in favour of renewables.

“Let's not invest in Blockbuster and try to slow down Netflix,” he said.

“The economics will drive this and the government is not listening to the market.”

Mr Mullins said it was inevitable that people would stop buying Australia's coal.

“Regardless of the policy, in the background things are changing and we need to catch up and put money into where it should be going.”

[charis.chang@news.com.au](mailto:charis.chang@news.com.au) | [@charischang2](https://www.instagram.com/charischang2)

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