

'Stay or Go' – Australian approaches to wildfire

Editor's note: As Australia's bushfire season draws to a close and the U.S. wildfire season gets under way, a leading expert from Melbourne takes a look back at the summer season Down Under. He also outlines the country's "Stay or Go" policy and whether it can be applied in the United States to avoid mass evacuations such as those seen in the SoCal wildfires last October.

By John Handmer
Head of the Centre for Risk and Community Safety
RMIT University, Melbourne

The 2007-08 fire season in non-tropical Australia started early with predictions that it could be the worst ever. Fortunately, some rain and milder weather than expected kept the situation calm in most areas. But locally hot weather and a wildfire in a semi-arid part of the state of Western Australia led to the deaths of three truck drivers who were caught on the open road Dec. 30.

Being caught in the open by a fire front is seen by Australian fire agencies as a most dangerous situation, slightly worse on foot than in a vehicle. Recent research by the Bushfire Cooperative Research Centre has shown that while the temperature inside a car can reach 300 C quickly, occupants can protect themselves from this fatal air temperature by lying on the floor under blankets. But if the vehicle itself catches fire, there are few options.



AP Photo/Chris Park

Traffic backs up for miles along CA-67 as people return home after being evacuated because of the San Diego wildfires last October.

There were other bushfires but they were not serious compared with recent years. However, any complacency induced by the mild weather in the south-east of the country was jolted by the 25th anniversary of "Ash Wednesday" on Feb. 16. In my home town of Mt Macedon — itself partly destroyed by the fires — there was a remembrance service at a church rebuilt after the fires on the theme of resurrection.

The 1983 Ash Wednesday Fires destroyed about 2,300 houses and shops and resulted in 83 deaths in the states of Victoria and South Australia. Following the fires, there were several studies that helped establish the relative safety of staying home during fires. The clearest lesson from these fires was that late evacuation is dangerous⁽¹⁾.

This fire is often credited with laying the evidence base for the policy of staying and actively protecting the home rather than fleeing at the last moment, commonly referred to as "Stay or Go" or more correctly as "Prepare, stay and defend, or leave early."

Vigilant householders

However, the approach had been promoted unofficially in parts of Australia since the early 1960s. It appears that this early advice was based on the experience of fire researchers and rural people, and some published evidence since the 1940s that houses generally ignited via ember attack and not by direct flame contact or radiant heat, with the implication that these ember fires can be extinguished by vigilant householders⁽²⁾.

Although long practiced in some areas, the position has only recently become national policy after being endorsed by all Australian fire services. Most police forces have also now endorsed the approach. A similar approach is used in southern France.

The Australian position advocates that residents need to choose whether they will stay and defend their property or leave early before a fire threatens the area and road travel becomes dangerous.

The real emphasis is to avoid last-minute evacuation, which has been shown to be the most dangerous option. If residents elect to stay they are advised to prepare their property with a range of measures, including vegetation (fuel) management, undertaking house protection measures and ensuring they have the resources to actively defend the property both physically and psychologically.

From this perspective the onus is on residents to accept responsibility for their own safety and that of their property. It is not about passively sheltering in place.

During recent severe fire weather and bushfire outbreaks in Victoria, the media, fire agencies and even the State Premier were all urging residents to implement the "Stay or Go" approach. In addition to evidence that this approach produces better safety outcomes, it helps protect properties with some 90 percent of homes with people present surviving bushfires.

Ideological issues

There are also important resource and ideological issues: Australian fire authorities have long argued that in major fires they cannot have firefighters everywhere protecting all properties. The result is that the risk is shared between fire agencies and the people in the threatened areas who are generally viewed as part of the solution rather than the problem. Of course in most states, Australian authorities can order people to leave if they believe it is too dangerous for them to remain.

This all highlights the differences with last year's approach in California, where about 500,000 people were evacuated in the face of wildfires. Apart from the reasons set out above, such large scale evacuations consume enormous resources and raise numerous issues of logistics, health and welfare. They also raise the issue of timing and location. We would argue that such evacuations would have to be completed before the wildfires threatened the areas or the transport routes – given that last-minute evacuation is the most dangerous option – and that people would have to be evacuated to somewhere significantly safer than their homes.

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From media reports, it appears that some people stayed and defended their homes anyway, but that these people had no access to basic information on how to do so relatively safely.

However, in California, expectations, resources and experience may be such that mass evacuations work well. Even if the Australian approach seemed sensible for the United States, it relies on some key factors, which may not be present such as a reasonably well informed and committed public and house construction that will resist ignition as a fire front passes. Although it can be argued that these factors are satisfied in Australia, the reality is patchy.

Another key factor that is often overlooked is that fire and emergency services must support the approach and not force people to evacuate into the fire front, which has happened in the past.

If we want people to be responsible for their own risks and to show some self-reliance, then it seems that community safety needs to mean more than mass evacuation. Given that fire seasons in both hemispheres are becoming longer, it may be appropriate to look carefully at all the risk management options. The Australian fire outlook is not good. Despite the rain, many areas remain exceptionally dry and the fire potential for next season looks high.

References

1) Handmer J and Tibbits A (2005), *Is staying at home the safest option during bushfire? Historical evidence for an Australian approach. Environmental Hazards. 6: 81-91.*

2) Handmer J and Haynes K (eds) (2008) ,Community bushfire safety. Melbourne: CSIRO Publishing.