

## Closer to home is better: fuel reduction lessons from Black Saturday

**Reducing fuel within 40 metres of houses is the most effective way to reduce the impacts of severe bushfires, according to a team of scientists from Australia and the USA who analysed house losses after Victoria's Black Saturday fires.**



Credit: CSIRO

The fires that burned across the state starting Saturday 7 February 2009 were the worst bushfires recorded in Australia, claiming 173 human lives and destroying 2029 homes.

The researchers made 12 000 measurements at 500 houses affected by the fires. While the analysis showed fuel reduction around housing is most effective, the research team noted it is not always feasible.

‘Intensive fuel reduction close to houses can be expensive, can have significant environmental and aesthetic impacts, and can be risky in some circumstances,’ says a senior author of the [report](#), Dr Philip Gibbons from the Australian National University (ANU).<sup>1</sup>

‘Many of these issues can be avoided if new housing is not permitted adjacent to forests.

‘No amount of fuel reduction will guarantee that a house is safe on extreme weather days like Black Saturday, so it is critical that other measures, such as early evacuation, safer places and architectural solutions are considered by every resident in fire-prone areas in addition to, or instead of, fuel reduction.

‘Housing density in many bushfire-prone regions is increasing, so the next major bushfire will be even more devastating unless we continue to learn from Black Saturday.’

Other research findings included the lower fire risk posed by vegetation in planted gardens compared to the risk posed

by vegetation in remnant native bushland.

The team also found houses close to public forest were at greater risk, but concerns raised after Black Saturday about heightened risks posed by national parks versus public forests were not reflected in the results.

‘On Black Saturday, houses were at similar risk whether they were adjacent to national park or state forest,’ says Professor David Lindenmayer of the Australian National University, and a co-author of the research.

The effect of logging was also examined. According to Professor Ross Bradstock from The University of Wollongong, an expert witness at the Bushfires Royal Commission, ‘no significant relationship between house loss and the amount of logging in the landscape’ was found.

The researchers also found that prescribed burning was not the best way to protect houses. ‘Clearing vegetation within 40 metres of houses was twice as effective as prescribed burning,’ concluded the ANU’s Dr Geoff Cary.

Source: Australian National University

<sup>1</sup> Gibbons P, van Bommel L, Gill AM, Cary GJ, Driscoll DA, et al. 2012 Land Management Practices Associated with House Loss in Wildfires. PLoS ONE 7(1): e29212. doi:10.1371/journal.pone.0029212

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