

FIRE NOTE

TOPICS IN THIS EDITION

- RISK
- COMMUNITY SAFETY

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STUDY CAPTURES INSIGHTS ON BUSHFIRE RISK AND RESPONSES



◀ Bushfire CRC and NSW RFS researchers worked in partnership to understand reactions to the October 2013 fires in NSW.

RESEARCH FINDINGS FROM THE OCTOBER 2013 NSW BUSHFIRES

CONTEXT

This *Fire Note* reports on the first-hand experiences and insights of NSW communities confronted by the October 2013 fires. It builds on previous post-bushfire research undertaken since 2009 in NSW, Western Australia, Victoria and Tasmania.

BACKGROUND

NSW endured some of the most destructive fires on record during 2013. In January, fire swept across numerous areas, destroying more than 50 homes. Then, in October, bushfires again threatened many communities, with more than 200 homes lost. As a result, the NSW RFS asked the Bushfire CRC to interview residents face-to-face and survey hundreds of other residents in the worst affected areas.

The purpose was to provide detailed learning on householders' understanding of bushfire risk and their personal experiences during fire with the aim of contributing to improved community safety.

This study focused on communities in the Blue Mountains, Port Stephens and the Southern Highlands.

BUSHFIRE CRC RESEARCH

Bushfire CRC and NSW RFS teams conducted semi-structured interviews with 194 residents, who were asked to describe their experiences of the October fires. The approach enabled individuals to tell their stories in their own words, with researchers using an interview guide.

An online survey was also developed to reach a wider cohort of residents. A total

SUMMARY

In October 2013, bushfires swept across parts of New South Wales, leaving a trail of destruction and loss. The NSW Rural Fire Service (NSW RFS) commissioned the Bushfire CRC to conduct community-focused research with a number of communities hit hard by the 2013 bushfires in the Blue Mountains, Southern Highlands and Port Stephens. The aim was to understand how people prepared for and reacted to these disasters and assist future development of emergency management responses, community education and public safety initiatives.

The researchers used interview and survey methods to capture insights on a range of factors, such as how people perceived bushfire risk, how they prepared their properties for possible threat, their responses to warnings and their views of leaving early on high fire danger days.

This *Fire Note* focuses specifically on the results of the interview component of the research. Among its key findings, it shows that the majority of people interviewed had an informal plan for bushfire, but did not write their plan down. Some people indicated that they had obtained the local NSW RFS survival plan kit, but only a relatively small number used the guide.

The research also reveals that people delayed their decision to stay or leave until the bushfire actually threatened and they could see signs such as smoke. Significantly, very few people proactively left early on the basis of extreme weather forecasts.

ABOUT THIS PROJECT

This research investigated community understanding of bushfire safety and responses in the context of the October 2013 bushfires in NSW. The study was commissioned by NSW RFS. The full report is available at the Bushfire CRC website: www.bushfirecrc.com

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END USER STATEMENT

2013 was one of the most challenging and dangerous years in more than a decade for bushfires in NSW.

Destructive fires, early in the year and again in October, gave the NSW RFS an opportunity to learn and refine our processes, particularly in relation to community preparedness and the delivery of information and warnings.

This contracted research with the Bushfire CRC has already delivered benefits, allowing the NSW RFS to adjust messaging to the public, in an effort to keep our information relevant to a dynamic and ever-changing community profile. It has also provided invaluable information to the National Review of Information and Warnings which is currently underway.

The NSW RFS is also proud to contribute to the national research agenda, and contribute to the bank of research and knowledge around bushfire preparation and response.

– Shane Fitzsimmons, Commissioner, New South Wales Rural Fire Service

▲ Research partners: Bushfire CRC and NSW RFS research teams completed detailed interviews with more than 190 householders at properties in fire-prone NSW communities.

of 775 residents responded to the survey, providing first-hand insights of their experiences of the bushfires. This survey largely reflected the questions covered in the interviews. Advertising for participants for the survey was largely conducted through online channels, such as the NSW RFS website and social media channels. The findings of the online survey are beyond the scope of this *Fire Note*, but are available in the full report on the Bushfire CRC website.

RESEARCH OUTCOMES: COMMUNITY INTERVIEWS

Joint Bushfire CRC and NSW RFS research teams completed detailed interviews with a total of 194 householders at properties in numerous locations within the Blue Mountains, Port Stephens and Southern Highlands. During the three-day study period, 177 face-to-face interviews were completed and 17 were undertaken via telephone. Of the total number of interviews conducted,

the majority were in the Blue Mountains (79) followed by Southern Highlands (63) and Port Stephens (52).

A little more than half of all the interview respondents lived in standard residential blocks, slightly less than half lived in larger



▲ Many areas of NSW were affected by bushfires in October 2013.



▲ Delayed reactions: Residents delayed their decision to stay or leave until the bushfire actually threatened and they could see signs such as smoke.
Photo by Gary P. Hayes.

Supplied by NSW RFS.

'lifestyle' blocks and about 10 per cent lived on farms or other agribusiness properties.

SURVIVAL PLANS

Notably, across the three study areas, 73 per cent indicated that they had some form of bushfire plan before the fires. However, very few (seven per cent) had a written bushfire plan.

Of all the residents interviewed, just over one-third (68), reported that they had obtained a copy of the NSW RFS Bushfire Survival Plan document, and of these, less than half (31), reported making use of it in preparing for a bushfire.

Eighty three per cent of Blue Mountains residents interviewed were able to describe their pre-October bushfire plan, compared to 67 per cent in the Southern Highlands and 48 per cent in Port Stephens. Many, particularly those in the Blue Mountains, had discussed the plan with family or friends, but few had rehearsed the plan.

STAY AND DEFEND OR LEAVE

One-third of Blue Mountains residents interviewed (33 per cent) indicated intending to stay and defend their properties, about twice that indicated in Port Stephens (17 per cent) and the Southern Highlands (16 per cent).

Those who planned to stay and defend appeared to be motivated by protecting their

property or assets, rather than viewing it as part of any considered survival plan or strategy, as shown in this quote from one of the interviewees.

"Obviously we're well set up. I've got equipment, water, pumps, everything. I'm as prepared, even more, than the Rural Fire Brigade, and more passionate because this is my property." – Interviewee

Those residents who intended to leave did so out of concerns for the safety and wellbeing of their families and others in their care such as the elderly and disabled.

"Well, the house is insured and things can be replaced, and our lives come first." – Interviewee

As noted in the above quote (and consistent with previous studies) most (89 per cent) of interviewees indicated they were fully insured.

Those who intended to 'wait and see', following a bushfire threat or warning, perceived their risk to be low. Notably, they viewed "leaving unnecessarily" or "defending against a significant fire" as "equally unappealing" options.

"My plan is to protect the place, and I feel that I'm prepared and have the experience to do that. So basically, if we had a fire that was a major fire approaching, I would probably pack the wife and valuables off and just stay myself." – Interviewee

Of those who planned to leave when threatened by bushfire, nearly 40 per cent reported having planned a safe destination and evacuation route. Few reported undertaking any action to reduce the likelihood of their house being destroyed in their absence.

AWARENESS AND WARNINGS

The majority of residents (60 per cent) said their initial awareness of bushfire threat came from the physical cues: smoke, smell and hearing water-bombing aircraft. The next most common triggers of fire awareness were informal phone communications (37 per cent) and SMS or landline Emergency Alert messages (25 per cent).

Notably, only one per cent of those interviewed chose to leave solely on the basis of fire danger weather predictions. This substantiates previous studies which consistently show that people mostly wait to react to a bushfire event, rather than taking proactive action on the basis of a forecast.

Of those at home when the bushfire threatened, just under half (46 per cent) stayed to defend their properties.

For those who decided to leave, the trigger was seeing the smoke, followed by Emergency Alert message (15 per cent) and sight of flames or advice from police or firefighters (13 per cent).



▲ The Port Stephens research team.

Supplied by NSW RFS.

Notably, while social media was not considered a key source for raising awareness of bushfire threat, some residents relied on that medium for updates after becoming aware of the threat.

About one-third of the residents relied on the NSW RFS website for information and updates (29 per cent), with 19 per cent using local radio and 17 per cent using Facebook.

CONCLUDING COMMENTS

Both the interview and the online survey research methods generated some bias in their samples. The interviewees had a bias towards those who were at typically home between 9am and 5pm weekdays, an under-representation of 18–30 year-olds and over-representation of those over 60. Despite best efforts, with flyers being left at houses where no-one was home, households where all parties were in full-time employment were under-represented, as were householders whose homes were destroyed. The online surveys over-represented residents who had a connection with fire agencies.



▲ Blue Mountains: Researchers studied areas hit hardest by the NSW 2013 fires.

NOW WHAT?

What three things stand out for you about the research covered in this *Fire Note*? What information can you actively use, and how? Tools are available at www.bushfirecrc.com/firenotes to help, along with activities you can run within your team.

FIRE NOTE

bushfire CRC

ACTIVITY SHEET 1 ONE KEY ACTION

PURPOSE

This activity sheet is designed for you to lead a discussion with your team to consider the key issues raised by a *Fire Note*, and the impacts these may have on your team.

OUTCOME

Leading this discussion will enable consideration and agreement on:

- 'What' i.e. the key issues raised by the *Fire Note*
- 'So what' i.e. the impacts this might have on the team
- 'Now what' i.e. what could the team do in the future to deal with these impacts?

SUITABILITY OF ACTIVITY

This is a good activity for downtime during a shift or for fire brigade meetings. It has greater value when the theme of the *Fire Note* relates to a topical/current experience for your team.

It can be conducted in an informal atmosphere, such as around the lunchroom table or sitting around the station.

The value of the activity is in bringing together views of all members of your team. It overcomes the loudest, most experienced or dominant person trying to hold the floor.

INSTRUCTIONS

1. Get each member of the team to read the *Fire Note* that you've selected. Give them 5-10 minutes of quiet time to do this.
2. As people finish reading (some will be faster than others) get them to write down three things that stood out to them from the *Fire Note*.
3. Once they've done this, ask them to discuss these things in their teams.

Fire Note is published jointly by the Bushfire Cooperative Research Centre (Bushfire CRC) and the Australasian Fire and Emergency Service Authorities Council (AFAC). This Fire Note is prepared from available research at the time of publication to encourage discussion and debate. The contents of the Fire Note do not necessarily represent the views, policies, practices or positions of any of the individual agencies or organisations who are stakeholders of the Bushfire CRC.

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AFAC is the peak body for Australasian fire, land management and emergency services, creating synergy across the industry. AFAC was established in 1993.