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HOW THREE SOUTH AUSTRALIAN COMMUNITIES RESPONDED TO THE 2014 BUSHFIRES



▲ Above: AN ERICKSON AIRCRANE AND FIRE UNITS BATTLE THE BANGOR FIRE IN JANUARY 2014. PHOTO COURTESY TAIT SCHMALL/NEWSCORP

SUMMARY

This *Hazard Note* summarises results from research commissioned by the South Australia Country Fire Service (CFS) following three very different bushfires in early 2014: a rapid-onset fire, a long-campaign fire, and repeat fire incidents. The study investigated bushfire risk perceptions, decision-making processes and the behaviour of residents affected by these fires. Findings showed regardless of the nature of the fire, many residents may have been dangerously late in leaving their homes. Ten percent of interviewees had a written fire plan to guide their decision making. In each of the three interview sites, the percentage of those who ultimately chose to leave as a whole household was approximately double that for the intention to do so. Regarding communication strategies, the results reinforce similar research from other states in finding that a 'one size fits all' approach to warning and informing the community during fires is not appropriate.

ABOUT THIS PROJECT

This research was conducted for the CFS by the Bushfire and Natural Hazards CRC through the South Australian-based Appleton Institute of CQUniversity. The CFS aims to use the findings to better support communities in preparing for bushfire and understanding its consequences. The study delivers valuable knowledge and builds on previous post-bushfire research in Victoria, Western Australia, Tasmania and New South Wales.

The full report, *Capturing community experiences: South Australian bushfires January 2014*, is available on the [Bushfire and Natural Hazards CRC website](#). Thank you to the affected communities for their participation in the research.

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CONTEXT

The widespread fires of summer 2013-2014 demanded the highest operational capacity of the CFS since its inception. The research draws on three very different bushfires to provide a greater understanding of community members' experiences, focusing particularly on three themes: 1) community and programs, 2) local bushfire risk perception and preparedness and 3) information, warnings and action.

BACKGROUND

South Australia experienced simultaneous and complex fires over an extended period in summer 2013-2014, with some fires that started in January continuing into February. Lightning from intense thunderstorms ignited hundreds of fires across the state, including fires in the southern Flinders Ranges (Bangor), Eden Valley and Rockleigh. These fires provided a research opportunity to investigate bushfire risk perceptions, decision-making processes and behaviour of residents across three very different events: a rapid-onset fire (Eden Valley); a long-campaign fire (Bangor); and repeat fire incidents (Rockleigh).

CRC RESEARCH

The research used both qualitative and quantitative methodology. During April and May 2014, 171 interviews were conducted with residents of affected communities and 606 people participated in an additional online survey, open to residents across South Australia.

Both the interviews and online survey collected information around general demographics, sense of community, previous experience of bushfires, what happened on the days before the fire threat, what happened on the day, and what, if any changes have been made in bushfire planning and preparedness as a result of that experience.

This *Hazard Note* discusses the 171 interviews. For information about the online survey, please see the full report.

RESEARCH OUTCOMES

Community and programs

Despite interviewees across the three locations perceiving a high degree of community connectedness (e.g. 'could get help from neighbours'), only half of the residents interviewed actually interacted with their neighbours during the fires. Although many interviewees had participated in a CFS community program, most tended to report relying on their own common-sense preparations around the home and property (e.g. clearing gutters), rather than a written, practised bushfire survival plan.

Local bushfire risk perception and preparedness

Nearly two thirds of Rockleigh (68%) and Bangor (61%) interviewees considered their home and family at potential risk of bushfire before the fire occurred and rated their concern about potential risk as moderate. Risk perception was lower in Eden Valley (40%).

Although most interviewees had both house and contents insurance, a notable proportion of residential, lifestyle, and farm/agribusiness properties had no insurance for house (9-16%) and contents (9-18%).

Two thirds of interviewees had a mental bushfire survival plan, however one in 10 reported having a written plan. There was little variation between locations.

One-quarter (26%) of interviewees reported use of CFS materials in the creation of either their written or mental bushfire plan, with 20% having used a Bushfire Survival Plan template and 25% having referred to Your Guide to Bushfire Safety.

The large number of fires in the Rockleigh area did not appear to have led residents to be more likely to have either a mental or written plan. Nor did such experience appear to have led to specific long term preparation activities.

Information, warnings and action

Across the three study areas interviewees reported they were aware of the warnings about bushfire risk, with 63% citing the weather conditions for their awareness. Some took specific action based on the fire danger rating.

Visual clues (e.g. seeing smoke/flames) and calls from family and friends were the most common way interviewees became aware of the fire. In the more rural areas at Bangor and Eden Valley, more than a third of people learnt about the fire threat from the radio, as compared to 8% in Rockleigh. In Eden Valley, where the fire spread extremely rapidly, four in ten of those interviewed identified the Emergency Alert text message/ phone call as an important source of fire awareness. This is more than twice the frequency with which this information source was reported in Bangor and Rockleigh.

Once alerted to the fire threat, most (85%) sought further information. Family and friends, radio and the CFS website were the most used sources. Less than 10% checked social media

FUTHER READING

McLennan J, Wright L, Mackie B (2013) How three communities reacted to bushfire: research findings from the January 2013 bushfires in NSW, Bushfire CRC *Fire Note 119*.

McLennan J (2014), Study captures insights on bushfire risk and responses: research findings from the October 2013 NSW bushfires, Bushfire CRC *Fire Note 131*.

McLennan J (2015) Capturing community bushfire readiness: post-bushfire interview studies 2009-2014, Bushfire and Natural Hazards CRC *Hazard Note 004*.

Trigg J, Rainbird S, Thompson K, Bearman C, Wright L, McLennan J, (2015) Capturing community experiences: South Australian bushfires January 2014, Bushfire and Natural Hazards CRC, Australia.

channels. The differing nature of the three fires is reflected in the level of information seeking, with those in Bangor (a long duration fire) far more likely to have sought information through the radio, CFS website or through contact with family and friends.

Intentions versus actions

Despite the previous experience of fire in the area, the initial intention of nearly half those interviewed in the Rockleigh area was to 'wait and see' before deciding on an action. In the rapid-onset Eden Valley fire, those waiting and seeing effectively halved from intention to ultimate action.

One in four of those interviewed in the Bangor area indicated that their initial intention had been to have some members of the household leave early and others stay and defend. This is more than twice the rate of this intention reported in Rockleigh or Eden Valley. In particular, it differs significantly from the intention in the Eden Valley where nearly one in three of those interviewed intended for the whole household to leave.

Detailed findings and discussion from this research can be found in the full report, available on the the CRC website.

END USER STATEMENT

These research results will be used by the CFS and other fire agencies to improve support for communities in preparing for bushfires, and in understanding their consequences.

While the land use and lifestyles of the communities interviewed differ, the research shows they share many similarities with respect to bushfire. However, the research also highlights that the demand for information and how it is best communicated varies depending on the degree of independence and resilience of communities.

These findings add to the national body of evidence collected from similar research in other states. Importantly, analysis of the data confirms that fire agencies need to carefully tailor their fire prevention strategies and community engagement programs for specific communities. A 'one size fits all' approach in providing warnings and information to the community during fires is not appropriate.

- **Greg Nettleton, Chief Officer, SA Country Fire Service**

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Hazard Notes are prepared from available research at the time of publication to encourage discussion and debate. The contents of *Hazard Notes* do not necessarily represent the views, policies, practices or positions of any of the individual agencies or organisations who are stakeholders of the Bushfire and Natural Hazards CRC.

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