

FIRE NOTE

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DRIVING THE PREPAREDNESS MESSAGE HOME

Experience and research has shown that remaining with and defending a well-prepared home is the safest option when bushfire threatens. If we can understand why people choose to prepare or not to prepare, we can develop risk communication information that specifically targets these choices and encourages greater levels of preparedness.

BACKGROUND

Currently, bushfire management agencies advocate the “prepare, stay and defend, or leave early” policy. Whichever option at-risk home owners choose, it is essential that they prepare their properties. Early preparation ensures that householders can maximise their safety and can assist fire management agencies in the protection of property and lives, especially when resources are stretched during severe bushfire incidents.

Yet even with significant effort directed at encouraging community preparedness, well-prepared properties in at-risk areas are still uncommon.

If properties have been well prepared in advance, it makes firefighters’ work less dangerous, and means firefighting resources can be better distributed during severe fires. It also allows firefighters to more easily defend homes if the occupants have decided to leave early rather than staying to defend.

Lastly, if fire threatens without warning, leaving the home at the last minute is a life-threatening option that must be avoided. Advance preparation allows householders to avoid taking this course of action.

ABOUT THIS PROJECT

These projects, C1: Understanding communities, and C4: Risk communication, are part of Bushfire CRC program C: Community Self Sufficiency for Fire Safety.

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SUMMARY

Finding better ways to encourage people to prepare their homes well before they are threatened by bushfire is vital for increasing householders’ resilience and reducing their vulnerability to bushfire.

Bushfire risk communicators – the personnel from the various community and government organisations involved in educating home owners about bushfire safety issues – are vital conduits of important messages for householders in at-risk areas. In order to ensure their bushfire messages are meaningful and understandable to the public, these bushfire risk communicators need a better understanding of the important factors that influence at-risk householders in making these crucial decisions.

This research has focused on examining what most influences at-risk home owners when deciding whether or not to prepare

their homes for bushfire. It identified and modelled significant decision cues that can help to develop better bushfire risk communication techniques that could increase community preparedness.

Among the key implications identified for bushfire risk communication are that:

- different people need different information to help them prepare
- risk communication messages and warnings are not always interpreted by the public in the way they are intended
- the public’s concept of preparedness may differ substantially from that of agencies
- it is important that fire agencies accept that the quality of their relationship with a community is as important as the information they provide
- effective bushfire preparation is as much psychological as physical.



BUSHFIRE CRC RESEARCH

In supporting research that assists bushfire risk communicators, the Bushfire CRC is helping to improve the ways that potentially life-saving information is communicated to the communities who most need it.

This research focused on finding better ways to encourage people to prepare well before they are threatened by bushfire. By exploring how people make decisions about bushfire preparation and threat, we have developed a model that describes these processes. Bushfire risk communicators can use this model to target their important information more accurately and effectively.

THE APPROACH

This study used a mix of qualitative and quantitative research techniques to understand preparedness decision-making.

One-on-one interviews were conducted with householders (36 interviews, all in Hobart) living at the bushland-urban interface (the

“peri-urban” or “i-zone”). Residents were asked about:

- their perception of bushfire risk
- whether they prepared
- how, when, why and what they did to prepare
- their sources of information about preparing
- how useful they found this information.

Interviewees were selected based on their willingness to take part in a telephone interview, and also on whether they identified they would choose to prepare or not.

By analysing the data from the interviews we were able to develop a theory that specifically described the decision-making process concerning bushfire preparedness. The interviews provided an in-depth understanding of householder bushfire preparation. Seventeen of the interviews (conducted in early 2006 as a pilot study)

were used to construct a preparedness questionnaire.

The questionnaire was then used to collect quantitative data from peri-urban areas around Hobart (during 2006/07 and 2007/08) and Sydney (2007/08), to validate and test our theory of bushfire preparedness. In total 2792 surveys were distributed around Hobart and 1500 around Sydney. In both locations the survey response rate was around 30%.

RESEARCH OUTCOMES

Of the many factors that influence preparedness decision-making, several are consistently important. Most importantly, decisions about whether to prepare or not are supported by separate processes, influenced initially by the householder’s belief about whether preparing will make a difference to their safety if bushfire threatens (outcome expectancy). This research showed that processes leading to both choices (to prepare or not to prepare) must be targeted specifically by future bushfire risk communication programs.

This research identified several important implications for bushfire risk communication:

- i. Householders in Hobart and Sydney exhibited generally low levels of bushfire preparedness. This suggests that passive risk communication techniques relying on awareness raising and information dissemination are not effective. While some householders can use this information well, others require assistance when translating it to their circumstances.
- ii. The research shows that the choices to prepare or not to prepare are influenced by separate processes and ultimately dependent on householders’ attitudes about, or confidence in, the advocated preparations. Risk communicators need to acknowledge that people choosing not to prepare require different information than people who are already preparing.
- iii. Many people consider themselves to be well prepared, but don’t actually know or understand what “well prepared” is. Is it enough to clear the gutters and have hoses? Or does “well prepared” mean completing all suggested preparation activities? Most householders have only undertaken easy, cheap and non time-consuming actions, and it could be argued that without significant preparations, such as sealed eaves or alternative water sources for example, their homes are not safely defensible.
- iv. Many people avoid making significant preparations if they perceive that what



they already do around their homes is sufficient. They may also discount the value of significant preparations, citing the uncertainty of bushfire and the desire to avoid over-investing in what they see as an improbable occurrence.

- v. Some messages contained in the current risk communication information are miscommunicated, misunderstood or misinterpreted. Correcting these issues will be critical in increasing community bushfire preparedness. For example:
 - The “stay or go” message and the “prepare regardless” advice are confused by householders, with those choosing to stay more likely to prepare, while those who think they might flee unlikely to prepare. Bushfire educators must clearly communicate the preparedness imperative, then indicate that once prepared, people should plan their course of action regarding staying or going very early.
 - Householders’ confidence in staying in the home during bushfire threat is low. This message – about the safety of staying – must be supported with hard evidence that householders can apply to their own situations.
- vi. A sense of community (involvement in community activities, attachment to people and belonging) is an important factor influencing preparedness, especially for those people with less experience or confidence in bushfire and bushfire preparation. Community engagement

END USER STATEMENT

“The decisions to prepare (or not) is mediated by the householders’ attitude to the risk of bushfire and their confidence in the value of preparedness. Most householders in bushfire prone areas have insufficient levels of preparation to make the property safely defensible.

“Recognising this, future risk communication must provide different information for those choosing to prepare or not to prepare. In terms of the current ‘stay and defend or leave early’ policy we need to provide information about what it is to be well prepared to defend a property and the need to prepare even if the householder intends to leave early.”

– **Terry Kirkpatrick, Manager Critical Incident Support, NSW Fire Brigades**

in bushfire risk management can help to build a sense of community.

- vii. Community variability can reduce the effectiveness of passive, mass-communicated, risk information. Risk managers must use mechanisms that help them to identify and address community variability. An example is the process of “community profiling”, which is being developed by researchers from the “Understanding Communities” team (Project C1, Alison Cottrell).
- viii. The findings emphasise a need for risk communication processes to accommodate the complex patterns of interaction that

exist between people and fire agencies, and the perceptions and beliefs that influence how both parties act. In particular, people’s perceptions of the way fire agencies conduct risk communication, fire agencies’ approaches to fire fighting, and the recovery process adopted following a severe bushfire influence community cohesion and trust in the agencies that are responsible for risk communication, and consequently how much householders listen to and value that information. Community engagement processes can be used to ensure all aspects of bushfire management are transparent and well understood by the public.

- ix. As one interviewee noted: “I think my preparation is better than the average ... but I still don’t feel confident, and that’s psychological. It doesn’t matter how well prepared you are, that is going to be the stumbling block.” This quote highlights the need for the householder to consider their psychological ability to deal with the threat of bushfire, something most people seem not to have done systematically, based on results from this research. These findings reiterate the AFAC’s recognition (in the Position Paper on Bushfires and Community Safety: 2005) that a key factor in being well prepared is the “mental and emotional fitness of the people” at risk. Successful risk education programs should therefore concentrate on helping householders to develop the mental and material capacities to prepare.

PUTTING THE RESEARCH TO WORK

Traditional mass communication modes of bushfire risk communication are important because many people understand and use this information as it is intended. However, bushfire risk communicators need to acknowledge that not all people use or understand this information as it is intended. Active community engagement can help “non-preparers” to understand and interpret risk information, and contribute to increasing the levels of community bushfire preparedness.

Whether engaging more actively with communities in risk communication (not just in post-fire situations), or using other methods to raise preparedness, these results should provide a basis from which to begin a process of ensuring that household bushfire preparedness is more widely undertaken, better understood in terms of extent and timing, and more widely accepted as the safest alternative to last-minute flight from a bushfire threat.

This research has provided valuable insights into the factors that influence householders when choosing to prepare or not. It has also identified significant features of the current risk communication techniques that must be addressed in order to encourage greater levels of bushfire preparation in the future.

Fire and land management agencies already do a great deal of bushfire risk communication and education. The findings from this research can slowly be integrated into these existing activities in a complementary fashion. This would require close collaboration with all relevant stakeholders, including community members, whose knowledge and experience can provide a valuable resource in this development process.

FUTURE DIRECTIONS

Several avenues of future research could build on this study:

- a. Collecting and analysing more qualitative data would help to develop a more broadly

representative model of preparedness. This could reduce the likelihood that the inherent variability between at-risk communities (as was found between Sydney and Hobart locations) could pose difficulties in the development of future risk management programs.

- b. Because outcome expectancy (how effective people believe preparing will be when threatened) was found to be the key factor determining whether householders choose to prepare or not to prepare, a specific examination of the precursors of outcome expectancy is important. Such research may lead to a better understanding of peoples’ psychological capacity to prepare, which may strengthen this important aspect of risk communication.



- c. The continuing improvement of risk engagement protocols that incorporate input from agencies, researchers and the community. Most Australian bushfire management agencies already conduct community outreach, and we must start working through these existing structures to begin to reach practical solutions that increase community preparedness.

What is enough preparedness? With the help of bushfire management agencies we must identify what level of preparedness is needed if householders intend to stay and defend their property safely. This will set a benchmark for what to achieve in terms of encouraging preparedness with future bushfire education campaigns.

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