bushfire CRC   afac
Australasian Fire and Emergency Service Authorities Council

FIRE NOTE

CONTEXT

With predicted longer and hotter summers, more intense fires, and increased population movement to rural and urban interface communities, there is an increasing level of bushfire risk.

For fire agencies to best serve their local communities, they need to develop an understanding of these communities from a range of different perspectives. The *Know Your Patch to Grow Your Patch* guide can help agencies to further develop that understanding.

BACKGROUND

Preliminary research shows that building community resilience requires an understanding of how government policy and public perceptions interact and also how the expectations of service providers, communities and agencies agree and differ.

The Understanding Communities Project within the Bushfire CRC aimed to provide a better understanding of the relationship between communities and their fire service providers. To achieve this, the project's objectives included:

- A methodology for mapping communities at risk.
- A framework and methodology for defining community values, attitudes, perceptions, needs and expectations in relation to bushfire risk.
- Guidelines for assessing organisational needs and expectations in relation to bushfire risk.

BUSHFIRE CRC RESEARCH

The Understanding Communities project adopted an action research approach (see 'Definitions' box). This involved using a variety of research methods, including qualitative and quantitative research approaches such as interviews, surveys, focus groups, and analysis of archival material and other documents. The actual methods used for the research included reviews of academic and other publications, in-depth interviews, group meetings, focus groups, and household surveys. Case studies undertaken of three local Queensland communities provided much of the impetus for the *Know Your Patch to Grow Your Patch* guide. (For interested readers, information from

KNOW YOUR PATCH TO GROW YOUR PATCH

SUMMARY

This Fire Note describes the *Know Your Patch to Grow Your Patch* guide, an end product of the Bushfire CRC Understanding Communities project.

The guide (available from the Bushfire CRC website) is designed to assist fire agency personnel with the process of better understanding the local community's perceptions, beliefs and needs. By understanding bushfire hazard perceptions and related issues within communities, fire agencies, land management groups and local government can better tailor the content of their community safety policies. An expanded briefing paper detailing the research supporting the document is also available.

KNOW YOUR PATCH
TO
GROW YOUR PATCH

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Understanding Communities
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&

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This guide for the process of knowing and growing your patch is deliberately brief. It is a guide, not a recipe, nor a set of operational procedures. If more detailed information is required, a supporting briefing paper is available, which describes how this guide was developed, the social research that underpins the guide, and more detailed descriptions of potential methods for achieving the information. A workshop guide is the second part of this document.

The guide's five major components are:

1) Community profiling.
2) Identifying community capacity and vulnerability.
3) Identifying community perceptions of bushfire issues and expectations of fire service delivery.
4) Identifying agency expectations of communities and organisational needs.
5) "Growing your patch".

ABOUT THIS FIRE NOTE

This research was part of Project C1: Understanding Communities, within Bushfire CRC Program C: Community Self-Sufficiency for Fire Safety.

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two of these case studies, Thuringowa and Mount Tamborine, are available in Bushfire CRC *Fire Notes* Issues 9 and 20, respectively.) The concept of 'community' embraces a variety of groupings. In this research, the term 'community' refers to a geographically-

defined regional body at a local level, which is usually located in the rural-urban interface. The approaches described here may be usefully applied in highly urbanised or remote communities but have not been the specific focus of this research.

RESEARCH OUTCOMES

KNOW YOUR PATCH TO GROW YOUR PATCH

1. COMMUNITY PROFILING

It is important to acknowledge that communities are not homogenous (Cottrell 2005, Marsh and Buckle 2001). Within any community there are smaller groups with which people identify that matter to them more than the community as a whole. Collecting information about households will not provide a picture of the richness of the networks and relationships within a community. These networks and relationships are important to communicating effectively with and within communities and helping communities help make themselves more resilient to bushfires. The way to inform and work with communities on bushfire matters will differ between and within communities as well as over time.

Identifying exposure to bushfire risk

An important first step is to identify the geographical area that is to be considered "at risk". While this may sound obvious, it is more complex than it seems. For example, education officers and operational staff may have different views about which areas are considered to be "at risk". Maps provide a useful starting point for this conversation. However, the availability of mapped information about bushfire risk in Australia varies between and within states, is at a variety of scales and sometimes based on outdated data. Aligning the boundaries of those areas identified as being at bushfire risk

with the boundaries of census collection districts will make the job of profiling the community easier – but it is not always possible.

Even access to maps can be more difficult than expected. For example, in several localities visited for the research, brigades did not have detailed maps which identified the bushfire risk in terms of high vegetation, time since area last burned, or the dates and locations of controlled burns. Maps are also a useful way to record the location of particularly vulnerable structures such as nursing homes and residences on the top of heavily wooded escarpments.

Sourcing information about who lives in an area

There are several sources of relevant information, each of which has its strengths and limitations; this variability makes it important to obtain information from as many different types of sources as possible. A rule of thumb is that at least three different sources are needed to ensure that information is reliable. Sources can include community information that is already published, interviews with local government and organisational representatives and meetings of other (particularly voluntary) groups in the community.

The first key data set is Australian Census Data. This census is conducted every five years and provides a wealth of information about the people who were residents in the community on the night the census data was

collected. However, over time or with rapidly growing communities, this information can quickly become out of date. Other sources of information can help to take account of this change and to fill in the information that census does not collect.

It is important to note that the more direct the contact there is with community members, the more sensitive and careful the community profiler needs to be. As well, community profiling is not a 'one-off' activity – the information needs to be updated regularly. Other public domain sources include census data, and local government websites or contact lists. More suggestions about potential sources of information are in the *Know Your Patch* briefing paper (Cottrell, 2009).

2. ASSESSING COMMUNITY CAPACITY AND VULNERABILITY

Community capacity

Community capacity is about identifying the networks and relationships within communities in order to improve community resilience to bushfires. A well-connected community which shares and discusses concerns about bushfires tends to be better prepared. Some communities also have a 'culture of preparedness' and existing networks such as Fire Guard groups and telephone trees (see 'Definitions' box) can be built upon. Despite the increasing risk of fire over time, as the time since the last fire increases, community concern or attention tends to decrease, and it is important to consider the time since there was a bushfire in the area. The last fire may be beyond collective memory, or the makeup of the community may have

changed considerably. Questions to consider include: Is the community well networked? Does the community talk about bushfires? Do they appear to be well prepared? When was the last fire?

Community vulnerability

Community vulnerability is about identifying groups in the community that are most vulnerable, and why. It is an important step towards identifying fire service needs at the local level. These may be the people who provide the focus for initial activity in the community. While there is a general view that certain groups in a community, such as the poor or the elderly, are more vulnerable to hazards than others, we need to be careful that we don't make assumptions about people's capacities or vulnerabilities. People who are not permanent members of the community or are recent arrivals from urban centres, other states or countries may be unaware of the risks. Furthermore, much of the information about bushfires is targeted towards households. This can be very useful, but if household planning is made on the basis of the whole household being together at the time of a fire event, then this could result in poor planning. Local government services providers are usually very helpful in understanding community vulnerability.

Questions to consider include: Are there commuters or other groups that are not so well connected in the community? Do residents of health care, aged care and other types of health and welfare facilities need special consideration, and how prepared are their carers and relatives? Is this a holiday area and are there likely to be people visiting who are not familiar with local risks or practices?

3. ASSESSING COMMUNITY PERCEPTIONS OF BUSHFIRE ISSUES AND EXPECTATIONS OF FIRE SERVICE DELIVERY

Case studies reveal that perceptions of bushfire as a risk – and expectations of fire service delivery – vary between and within communities. Research from a variety of projects within Bushfire CRC Program C – Community Self-Sufficiency for Fire Safety – indicated that many members of the public gave priority to concerns other than bushfires. These other priorities ranged from other natural hazards to economic issues such as financial difficulties, maintaining employment, their own personal safety and that of their children. The research found that communities which had a culture of bushfire preparedness and good internal linkages or networks also appeared to foster more salient perceptions of bushfire risk.

Cases studies conducted as part of Bushfire CRC Project C1: Understanding

END USER STATEMENT

"The 'Know Your Patch' term is religiously promoted in QFRS by our operational crews. However, simply knowing your patch does not equate to 'managing your patch'. Alison Cottrell's research takes this concept one step further by posing the question: Do we really know our communities and how they will respond before, during and after an emergency incident? The 'Grow Your Patch' approach provides a well grounded, well researched paper that offers a sound and essential guide that helps us better understand our respective communities, This, in turn, builds stronger partnerships with them, supporting both the communities and agencies in preparing for and responding to bushfires."

– Steve Rothwell AFSM, Assistant Commissioner Rural Operations, Queensland Fire and Rescue Service, Department of Community Safety

DEFINITIONS

Action research: While there is no one widely accepted definition of action research, Whyte (1991, p.8) states that action research is for people who: *"want their research to lead to social progress and yet do not want to give up claims to scientific legitimacy"*.

Telephone tree: a group of people who have agreed to initiate a pre-arranged chain of telephone warning messages.

Communities, found that at least some members of the public were unclear about which agency provided bushfire services. Some people had unrealistic expectations about the likelihood that a fire truck might arrive. In other cases, people were educated about the risks, the bushfire service providers and the likely availability of sufficient services. Fire agencies need to be familiar with their own communities if these perceptions and expectations are to be understood and addressed.

4. IDENTIFYING AGENCY EXPECTATIONS OF COMMUNITIES AND ORGANISATIONAL NEEDS

What do fire service providers expect of the communities they serve? This question may not seem obvious but it needs to be asked. For each community these expectations may vary depending on the kinds of bushfire risks faced, and the makeup of the community. It is important for fire services to understand what they are asking people to do in order to understand whether the service's expectations are realistic or achievable. Fire services also need to identify areas of potential conflict between prevention strategies and other activities and issues. But if the prevention strategies conflict with community activities then, obviously, negative outcomes will arise.

For example, in some communities, community goals such as the conservation of local flora and fauna may conflict with activities such as hazard reduction burning and removal of bushfire fuel around homes. Sometimes these goals are legislated and require negotiation with local authorities.

Understanding the differences in expectations between communities and fire service providers can help both parties to avoid unrealistic expectations and unnecessary conflicts.

5. GROWING YOUR PATCH

Many fire services continually lament the low attendance at the community meetings they organise – meetings that aim to foster community resilience. Some research even found that community members would prefer not to meet with the fire services (Balcombe *et al*). This requires creative thinking about how to reach the community and highlights the value of the community profile. It can identify the 'entry point' or key contacts for the groups that fire services need to contact by providing information about the community's vulnerabilities, capacities, perceptions and expectations.

Important steps to building community resilience include networking strategies such as:

- Prioritising who needs to be contacted, for example, on the basis of exposure to risk; relationships to be developed; local fire agency resources.
- Working through existing community organisations.
- Contacting employers, tourism providers and managers of large facilities (e.g. factories, sporting clubs, care facilities).
- Including community members in the discussions about their local priorities and how issues might be resolved.

This process is about:

- Identifying who lives in a geographic community defined on the basis of the local fire service boundaries.
- Engaging with that community by understanding its makeup and its needs.
- Then negotiating ways to address bushfire issues with that community.

It is a much more effective alternative to telling people what to do – an approach that clearly does not work.

FURTHER READING

Balcombe, L. (2007) *Perceptions of Preparedness for Bushfire: A Case Study of Tamborine Mountain.* M.Sc. Thesis James Cook University, Townsville.

Cottrell, A. (2005) Communities and Bushfire Hazard in Australia: More questions than answers. *Environmental Hazards.* 6:109-114.

Cottrell, A. (2009) Know Your Patch to Grow Your Patch. *Bushfire CRC Briefing Paper.*

Fire Note, Issue 20. Tamborine Mountain Case Study.

Fire Note, Issue 9. Living with Bushfire: The Thuringowa bushfire case study

Marsh, G. and Buckle P. (2001) 'Community: The concept of community in the risk and emergency management context.' *Australian Journal of Emergency Management.* 16(1):5-7.

Neuman, W.L. (1997) *Social Research Methods.* 3rd edn. Allyn and Bacon, Boston.

Whyte, W. F. (ed.) (1991) *Participatory action research,* SAGE Publications, Newbury Park.

HOW THE RESEARCH IS BEING USED

The *Know Your Patch to Grow Your Patch* guide and the accompanying briefing paper have been circulated and endorsed by a number of Australasian fire agencies. For example, Tasmania Fire Service has used the research findings to inform their new Community Bushfire Preparedness program. Queensland Fire and Rescue Service has also endorsed and begun the process of implementing the research at the volunteer brigade level. The research is also being used in Western Australia by Fire and Emergency Service Authority.