Central Grampians

# RESEARCH PROJECT

# BUSHFIRE SAFETY FOR PEOPLE WITH SPECIAL NEEDS

## Final Report

# Forward

This report results from collaboration between RMIT University and the Bushfire Cooperative Research Centre, in particular, Project C7, the Country Fire Authority (CFA) and Grampians Rural Access Program.

Writing this report has been a research challenge. The households interviewed for this study have faced a most challenging and difficult experience, and we are very grateful for their willingness to share some of this journey with us. Many sensitive issues were raised: stresses within family relationships due to the impact of the fire, brave recognitions by some participants of the difficulty they face and continue to face, in relation to the environment they live in and how best to live on in that environment knowing the difficulty of dealing with a bushfire. Household members asked themselves in the presence of the researcher, whether what they were doing or intending was realistic or sensible. We trust that in writing about their experiences, we have maintained a balance which protects the households' members, recognises the generosity of the responses, and the importance of what these households did and learned, for use by others.

In addition, we had the benefit of being able to discuss these research findings with a group of agencies who came together for this purpose in June 2007. We acknowledge the work of individuals and agencies both in their contribution to this work in assisting with the research or participating in workshops. We acknowledge their commitment and work in their local communities and the difference they make, often going beyond their formal role. This research does not report on the activities which took place in the region after this workshop, details of which are available through Rural Access.

We are pleased to have had the opportunity to examine these issues in this region and also note the important journey being undertaken by this group of agencies in the Grampians region which has attracted interest of others parts of Australia.

Helen Rosenbaum
Helen Goodman
Alan Rhodes

June 2008

RESEARCH PROJECT .....1
BUSHFIRE SAFETY FOR PEOPLE WITH SPECIAL NEEDS .....1
Forward .....2
Introduction and Overview of the Research Project .....5
Context of this study .....5
Methodology .....7
Agency consultations and reporting .....7
Household Interviews .....9
Household Interview Results .....11
Household participation and characteristics .....11
Property type, ownership and access .....14
Proximity of the fire .....14
Decision making in relation to fire threat .....14
Preparedness for fire .....14
Decision making in relation to “Stay or Go”. .....15
Information .....18
Prior experience of fire .....18
Exposure to Community Education .....18
Information during the fire event .....18
Responding to information .....20
Expectations about the quality of information available during the fire event .....21
Forms of assistance .....21
Formal assistance .....22
Informal assistance .....24
Agency Discussion and Decisions .....26
Issue 1: Education of those with special needs .....26
Issue 2: Vulnerability of those with special needs .....27
Issue 3: Agency planning and coordination .....27
Solutions and Strategies .....28
Identifying those most at risk .....28
Organizational partnerships .....28
Types of interaction .....28
Publications and the Web .....28
Strategy and planning .....29
Support services .....29
Warnings and information during emergencies .....29
Key decisions made at the workshop .....29
Emerging Themes and Priorities .....30
Perceptions and reality of risk .....30
Perceptions of responsibilities .....31
Individual and household planning .....32
Informing and educating people with special needs .....33
Agency planning and coordination .....34
Strengthening agencies and community capacity to address the bushfire safety of people with special needs .....36
Conclusion .....37
Appendix1: Guiding Questions for Research Interviews .....39
Appendix 2: Case Summaries .....40
Appendix 3: Results of Agency workshop .....47
Education of people with special needs (Issue 1, Table 6) .....47
Vulnerability of those with special needs (Issue 2, Table 6) .....49
Agency planning and coordination .....50
Solutions and Strategies in relation to Key Issues .....51
Identifying those at most at risk .....51

Organisational partnerships .....52
Types of interaction.....53
Publications and the Web .....54
Strategy and planning .....54
Support services .....55
Warnings and information during emergencies .....56
Key Decisions made at the workshop .....56
Forum for educative support and facilitation around fire planning. .....57
A 'structure' for ongoing discussion of these issues .....57
Appendix 4: Documents/Resources collated during the project period, but not cited in the Report .....58
Selected reports and research on needs of people with disabilities in disasters: international review.....58
Bibliographies .....61
Other literature and resources.....61

# Introduction and Overview of the Research Project

Following the January 2006 Grampians fires, three agencies formed a partnership to carry out a small research study on bushfire safety issues for people with special needs. These agencies were Rural Access[1], the Country Fire Authority (CFA) and Project C7 funded by the Bushfire Cooperative Research Centre (BCRC), located at RMIT University. The "Grampians fires" include the 2005 New Years Eve fire (also known locally as the Deep Lead or Black Range fire) and January 2006 (Mt Lubra or Grampians) fire.

The partnership broadly defined the term "special needs households" to include those households where a resident had a temporary or long term disability, illness or injury, or any other life circumstance such as social isolation, which was likely to impede the person's ability to prepare for or respond to the threat of fire. The aim of the research was to identify and to better understand the factors that affect the safety of people with special needs in the event of a bushfire.

The research team comprised Dr. Helen Rosenbaum, Research Officer, RMIT; Dr Helen Goodman, Research Fellow, RMIT/BCRC and Alan Rhodes, RMIT/CFA. Gilda McKechnie, Rural Access Coordinator from the Grampians Community Health Centre has provided advice to the team and convened key meetings during the research period. The research idea arose following the coexistence of three particular ingredients, alongside the willingness of many agencies and households to lend their expertise and support to participate. These ingredients included: the direct experience of Dr Helen Rosenbaum while acting in the role of Rural Access worker during the fires, and noting her own concerns and those of others about residents with special needs; a ready response by the CFA and the Bushfire CRC Project C7 in locating the funding for the research; and the willingness of the current Rural Access incumbent to host, support and carry the local idea through. The research entailed two key steps. One was an interview study of 9 households with a member with special needs, and the other was a workshop at which the researchers fed back the interview results and discussed them with agencies. At this workshop a decision was taken to hold Forums for households with family members with special needs, and five forums were carried out. This last step was outside the research brief, and this report deals with the interview study and the workshop feedback.

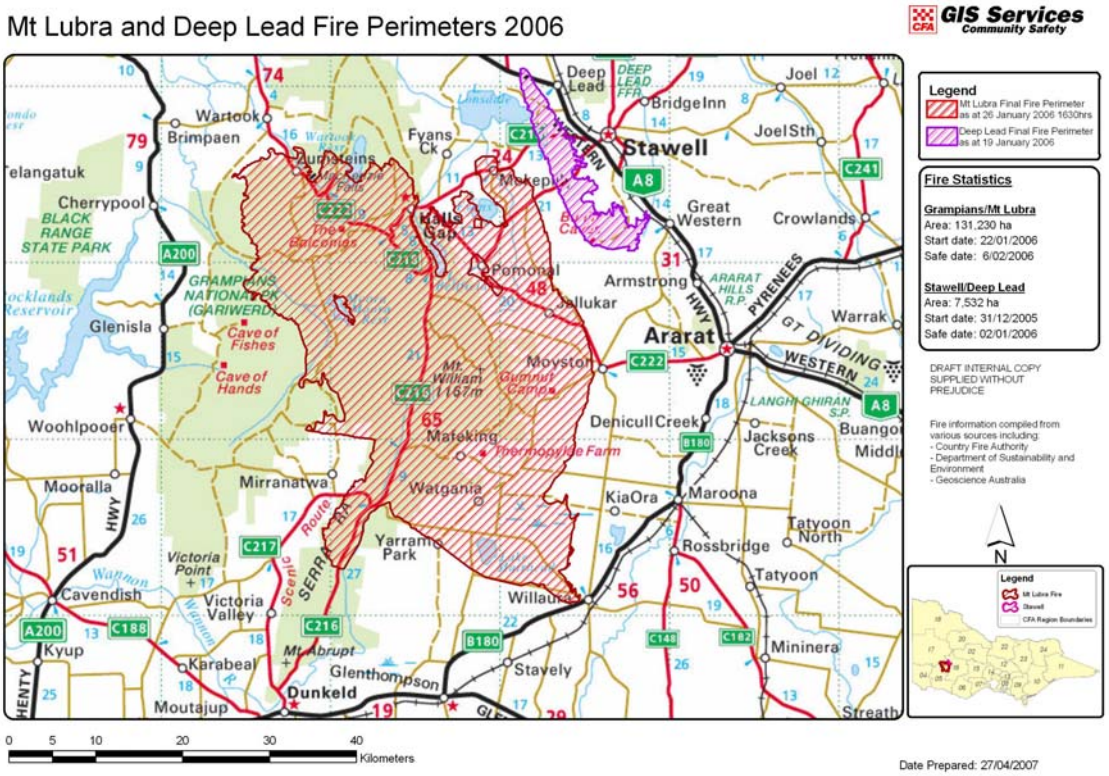
## Context of this study

In late December 2005 through to January 2006 two major fires occurred in the area known to most Victorians as the Grampians region. More specifically, the fires are known as the *Deep Lead/ New Years Eve* fire, which started on 31 December 2005 and then the *Mt. Lubra/Grampians fires* which broke out later in January 2006. Figure 1 below shows the Deep Lead fire perimeter as at 19th January, 2006 in the upper right hand corner of the map, (the 'walking stick shape' fire area) and the Mt Lubra

[1] Rural Access is a statewide program funded by the Department of Human Services (Disability Services). Under the umbrella of the Grampians Community Health Centre, Rural Access seeks to work in partnership with local organisations, businesses and the community to promote access for people with a disability in the Grampians region.

fire perimeter, as at 26th January, 2006 (the much larger area to the south west of the Deep Lead fire area).

**Figure 1: Deep Lead and Mt Lubra fire perimeters as at late January 2006**




# Methodology

## Agency consultations and reporting

The researchers met formally twice with a range of regional agencies. The first meeting was held in July 2006 in Ararat, at which researchers received advice from agencies as to the scope and conduct of the research. The second meeting was held on 18th June 2007 in Hall's Gap at which the researchers sought feedback from local agencies on the Interim Research Report and its implications for local delivery of community safety strategies for bushfire preparedness.

Table 1 which follows sets out the range of agencies who participated in these two meetings.

**Table 1: Agency Consultations and Reporting**

| | Consultation 17th July 2006 | Consultation 18th June 2007 |
|---|---|---|
| Rural Access: Grampians, Colac Otway | √ | √ |
| Ararat Rural City:<br>Manager Community Development and Bushfire Recovery<br>Community Development Officer | <br>√<br>X | <br>√<br>√ |
| Grampians Community Health Centre (GCHC)<br>Carer's Respite Centre/Carer's Choice<br>Senior Adult Counsellor Ararat | <br>√<br>X | <br>√<br>√ |
| Northern Grampians Shire:<br>HACC Coordinator; Acting Team Leader, Age and Disability Services | √ | √ |
| Grampians Disability Advocacy Association | √ | √ |
| Vision Australia | √ | √ |
| Deaf Access | X | √ |
| Community Member and Pomonal CFA | √ | X |
| CFA:<br>Community Education Coordinator Wimmera Midlands<br>Community Education Coordinator Ballarat Region<br>Community Development Coordinator<br>Brigade Support Officer | <br>√<br>X<br>X<br>X | <br>X<br>√<br>√<br>√ |
| DSE Natural Resource Management Officer | X | √ |
| Parks Victoria:<br>Grampians National Park Communication and Tourism Officer | X | √ |
| Victoria Police:<br>Halls Gap<br>Ararat | <br>X<br>X | <br>√<br>√ |
| DHS:<br>Emergency Management Projects Coordinator Ballarat Region (2 Staff) | X | √ |
| Red Cross | X | √ |

As indicated in Table 1, the second meeting was widened to include a broader range of stakeholders, reflecting the increased understanding of the researchers of the complexity of issues and the coordination required to address them. The second meeting included staff from Land Management agencies such as DSE, and Parks Victoria, and other agencies with roles in Emergency Services, such as the Police, and the Department of Human Services[2].

[2] Apologies for July 2006 meeting were received from Grampians Deaf Access; Community Care Options, Grampians Community Health Centre; Golden Plains Shire Community Centre. Apologies for the June 2007 meeting were received from Community Development Officer and Manager, Northern Grampians Shire; State Emergency Services; Rural Access workers from Hepburn, Moorabool, Golden Plains, and Ballarat Shires

Prior to the second workshop, one of the researchers spoke to members of the agencies with a view to seeking a brief response on the Draft Interim Report and confirming their attendance of the workshop.

Nineteen staff from 14 agencies or services[3] met at Hall's Gap on Monday 18th June 2007 to respond to the Interim Report, discuss the findings and share ideas about future directions. The morning discussion focused on what participants found most important or interesting about the Interim Report, which had been circulated and read by participants. Participants were asked to identify any particular initiatives they know of which others may not know of, and also to contribute any ideas they may have about ways forward with some of the issues. Issues were then prioritized by the participants and only those issues accorded the highest priority were discussed further in the workshop, given the constraints of time. Finally, the group proposed and decided on two specific actions they could take locally to assist those with special needs. The workshop was facilitated by Julie Walker, from the Grampians Community Health Centre.

## Household Interviews

The research team invited input from agencies in relation to any pre-existing data they may have on the research questions of how people with special needs managed during the fire. An announcement seeking interviewees was placed in the Grampians disability Advocacy Association (GdAA) Newsletter and email notices were also sent to local health and disability services. Community members were also asked to think of suitable households for interview. These processes results in 9 households becoming part of the research study.

Nine interviews were conducted with 14 people who either had special needs themselves or were the family members or carers. These people had experienced either the Deep Lead/ New Years Eve fire on 31 Dec 2005 or the Mt. Lubra/Grampians fires during January 2006. The outline of the semi-structured interviews was finalised after consultation with agency staff in July 2006[4]. Most of the interviews were held 9-10 months after the fires during October and November 2006. Helen Rosenbaum carried out 8 of the 9 interviews. Data from household 9 was collated with the household by an agency staff member, and amplified in discussion with one of the researchers.

Eleven of the interviewees participated in the research as a result of invitations extended by health and community workers known to them, one was identified by someone who had already been interviewed in relation to this study, and two had responded to the GdAA newsletter announcement[5]. The researchers and agencies recognised that the research sample was small, even though there had been an attempt to keep the definition of 'special needs' very broad. However, there are likely to be many more people in the region who do not identify as having a special need, are not accessing services, and are therefore unknown to local service providers. In addition, several people who were known and invited to participate declined to do so.

[3] A service such as the Central Grampians Carer Respite Centre is a program funded by both the Commonwealth (the National Respite for Carer's Program) and the State (Victorian Aged Care Initiative Strategy), and is auspiced by the Ballarat Health Services together with the Wimmera Health Care Group and the Grampians Community Health Centre. It is listed here as a 'separate' service while being housed in the Grampians Community Health Centre.

[4] See Appendix 1 for outline of questions

[5] Had the research team advertised in the local media more participants may have been available. However, the team were concerned about raising community expectations about a small research program and elected to use local networks.

Those who did participate appeared to welcome the opportunity to tell the researcher their experiences.

A draft report was written based on these interviews and circulated to agencies during April and May of 2007. These agencies came together in June 2007 to discuss the report.

In July and August 2007 the draft of the report was returned to the households interviewed, particularly with a view to seeking permission to use the case summary as an Appendix in the Final Report. The process of checking resulted in some participants electing to withdraw their case summaries whilst in other households it stimulated further discussion and verification of the facts. Certain case details have been changed to ensure anonymity. The final case summary was verified in January 2008. These summaries are held in Appendix 2.

# Household Interview Results

This section sets out the results from the interviews with the 9 households. The data detailing issues which arose in the Agency Workshop are held in the section with follows this, and are also held in Appendix 3.

## Household participation and characteristics

In the households where a partner was present, the experience and perspectives of both members of a couple were valued and therefore both were considered to be interviewees. The interviewees therefore included eight people (8) with special needs, five partners (5) who were also carers to varying extents, and one mother (1) who was a carer, totalling 14 people. In the process of sending the household members their "case summary", in a few cases the researchers had contact with another member of the household who expressed an opinion about the case summary. In this way a small amount of additional data was generated, and two more people in addition to the 14 provided further input at this later stage in the research.

Several major challenges arose from the identifiable special needs faced by the research participants:

- Mobility difficulties. Two men (both married and living with their spouses) had injuries arising form accidents going back 20-30 years, resulting in the need for wheelchair mobility in one case and crutches in another. Another woman who lived alone had severely reduced mobility due to a chronic illness requiring intermittent hospitalization
- Two other men (also married and living with spouses) had neurological conditions, with variable mobility consequences for one, and with additional sight, hearing and some cognitive impairment in another.
- One woman who lived alone had hearing loss.
- Another man had an Acquired Brain Injury following a stroke some 20 years ago, and was cared for by his wife.
- An adult son with an intellectual disability and dependent for all his care needs who was cared for by both parents.

The age of participants ranged from around 40 to 70 years.

Table 2 sets out a summary of the participating households interviewed and their circumstances and experiences. The reader may be aided by reading the case summaries held in Appendix 2, before examining the summary detail in Table 2.

**Table 2: Household circumstances and experiences**

| | House-hold | Age Group | Disability | Location | Fire front | Property losses | Preparedness | Presence and nature of fire plan | Actual Outcome | Sources of information | Previous fire experience | Nature of assistance |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **1** | Couple | 60-64 | Mobility – wheelchair bound. Unable to drive | Remote rural property (about 2 kms of bush track from main road) | Within 500m | none | Purchased pump and hoses after 2002 fire. Maintains fire break around the house Stayed up all night watching the Black Range fires (aware of ember attack); | No agreed plan | Left early | ABC radio, local store | Prior fire experience on this property in 2002. | Informal after front |
| **2** | Couple | 65-69 | Neurological condition; variable and intermittent impact on mobility | Rural property - Easy access with short distance from main road. | On property | Fencing, planted trees | Had a thorough defence system in place, including access to 6,000 gallons of water. Had attended three Community Fire Guard meetings and a community meeting which they felt prepared them for 'worst case scenario'. | Yes: Stay and Defend | Stayed, though wife reported 'panicking'. | ABC radio, Public meeting | Not mentioned | Formal during front |
| **3** | Couple | 65 - 69 | Mobility issues further to back condition. Uses walking stick – | Remote rural property | On property | Unoccupied house and shed | Building a fire defence system for over 10 years. Access to 10,000 gallons and had ground and roof sprinklers, had a fire break, and a water tank on a trailer.<br>Attended community meeting and felt well prepared. Had wet down around the house perimeter prior to the fire. | Yes: Stay and Defend | Stayed | ABC radio, public meeting, local store | Husband involved in the Ash Wednesday fires. | Informal after front |
| **4** | Individual | 45 - 49 | Hearing Loss for over 25 years | Rural village | Within 3 km | none | Only heard of a 'fire plan' at the community meeting. Started to put tennis balls in the gutters and then abandoned that. Changed behaviour between first fire (NYE) and second fire: networked with five other residents. | No plan | Left eventually, "when smoke became thick" | Friends, public meeting, ABC radio | Not mentioned | None |

**Table 2: (Continued) Household circumstances and experiences**

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **5** | Individual –Partner absent | 35 - 39 | Intellectual disability | Rural property | Within 500m | none | Had decided they would leave; rent the premises and can't spend resources on fire defence. Limited water access. | Yes: Leave Early | Left 3.5 hours before front arrived. | Partner, ABC radio, 2-way radio | Husband of interviewee worked with a land manageme nt agency in fire related work. . | Informal after front |
| **6** | Individual –partner absent | 35 - 39 | Mobility – need for crutches for about 20 years | Town: owns rural property | On property | none | Had cleared some vegetation around the sheds on the property, planned how to leave the gates configured so horses could maximise survival chances. | Yes: Leave Early | One member of couple changed their mind and returned to fire affected area . | Internet, ABC radio, look-out | Not mentioned | Formal after front |
| **7** | Individual | 60 - 64 | Medical condition severely limiting mobility and requiring frequent hospitalizatio ns. | Rural village | Within 3 km | none | Has arrangement with neighbour to keep each other informed. House insured, frailty prevents clearing garden | Leave early with pets and fully insure home. | Left eventually after warning from neighbour that she had five minutes to leave. | ABC radio, friends, neighbour | Not mentioned | None |
| **8** | Couple | 70 -74 | Neurological condition impacting on mobility, cognition and vision. | Remote rural property | On property | All assets, planted trees livestock | Have a trailer with a tank and pump. Know how to block down pipes and fill gutters and other house preparation but did not have time. | Yes: Leave Early. Decision remade each year | Left within 10 minutes of first front. | Questioned if aeroplane was tyring to warn them. No other | Not mentioned | Formal after front |
| **9** | Couple | 50 - 54 | Acquired Brain Injury following stroke. | Rural property | On property | | Had plan to stay and defend in the past, had always kept vegetation down, used gravel rather than mulch in garden, clear in nearby paddocks. | Previous plan over the years always to stay. | Stayed, as husband wouldn't move from home. | Inaccurate from fire service | Husband previous member of CFA | Informal during front, formal after |

# Property type, ownership and access

Only one of nine households advised their property was rented.

At the time of the fires, three of the participants resided in a residential area of a town, and the remaining six lived on farming properties or bush blocks. For one of these three participants living in town, a male, the focus of concern was a bush block jointly owned with his wife. The other two town residents were women who live independently.

Only one of the six 'non-town' couples lived in a location with ready access to their property, a property which had a short well maintained driveway which ran onto a sealed road. At the times of the fires, three couples lived in relatively remote locations, accessed via narrow and rough bush tracks, several kilometres from a sealed road.

While the research did not seek to identify the details of how individuals were using the land on which they were residing, it can be said that in the main, the landholdings were smaller than the average productive farming property. Although some of the households owned livestock, only one household operates a working farm (household 9). Ties to the land were particularly strong in one other household (where the husband lost the home in which he grew up). Most owners seemed to have lived on their properties for 10 years or more.

# Proximity of the fire

For five households the fire impacted directly on their properties, with two of those five experiencing significant losses. Household 8 lost their home, all outbuildings and livestock, whilst household 3 lost one shed and their mother's house but managed to save their own home and another shed.

The fire came within 3 km of the properties of two interviewees and within 500m of the properties of a further two.

# Decision making in relation to fire threat

## Preparedness for fire

There was a range of preparatory activities undertaken by households. This range included:

- extensive preparation of the home
- preparation of surrounding land
- investment in fire defence resources
- discussion within the household about the decision as to whether to stay or leave.

There were also those who had not carried out any preparation and were unaware of the current policy and practice encouraging residents to consider their options well before a fire event.

There was large variation in the period over which households had prepared for the fire. For one household (HH9), who had been farmers, had also been members of the

CFA, and had prepared their property and had a position about what they would do for some decades. Their circumstances had changed however as they got older and the husband suffered from the effects of a stroke. Household 3 had had a fire defence system in place for 10 years, (HH3) and had had past fire experience. Another household who rented their property had decided they would not use their own resources in defending the home. An older woman who lived alone had decided that her preparedness strategy was to fully insure her home and in a fire event not to try and stay with her home.

## Decision making in relation to "Stay or Go".

The research team are mindful that in describing particular cases we risk being seen as judgemental of the actions of those who were less aware of the impending threat than others. The intent of our report is not to judge, but rather to explore how people responded to the threat of bushfire and the factors that appeared to influence these responses.

The Australasian Fire Authorities Council[6] suggests that "people who plan to leave early should recognise that on days of very high or extreme fire danger bushfires may break out nearby and spread at a rate that leaves very little time to relocate." It also recommends that people who do not have the physical, emotional or mental capacity to cope with bushfire should relocate well before fire impacts their area. We use this dichotomy of "stay and defend" or "leave early" to set out the research results. In doing so, we acknowledge that 'real life' seldom falls into neat categories. We discuss some of the ambiguities in the categorizations within this report. One key dilemma for the implementation of the AFAC policy, for example, is how community members should be encouraged to interpret what "leave early" means in practice to them.

We note that the label "left early" is a contested one. What "leaving early" really means in different fire events will hold varying meanings to parties within households and between households. We also note that one label to signify a decision at a household level where there is more than one member is itself problematic. One household for example, is noted as 'leaving early' but the wife reported that she would have liked to have left earlier than they actually did. In another case, one party reversed the decision that had been jointly made.

Of the nine sets of interviewees, none had a written bushfire survival plan in place during the fires, as recommended by the Victorian CFA.

Table 2 above summarises information in relation to fire plans before the event and what actually transpired during the fire with respect to households leaving or staying with their property. We discuss these below in two broad groups – households with an agreed current plan, (which we categorise further into 'stay and defend' or 'leave early) and households with no agreed current plan.

[6] The Australasian Fire Authorities Council (AFAC) provides advice to the public about what they should do during a bushfire. In this paper we refer to the national policy position as the 'prepare, stay and defend or leave early' policy. The position is sometimes referred to as the 'stay and defend' or 'stay or go' position. The AFAC position paper, "*Position Paper on Community Safety and Evacuation During Bushfires* is available at: www.afac.com.au

## Households with an agreed current plan

Five sets of interviewees did have verbally agreed fire plans – for two households (2 and 3) it was to stay and defend their properties and for three households (5, 6 and 8) the plan was to leave early.

Of the five households with a fire plan, four disclosed to the interviewer that they had considered their physical, mental and emotional capacity to fight the fire in making their plan. However, only one interviewee explicitly described the ways in which he would expect to be affected in a bushfire situation as a result of his disability. The other interviewees did not directly discuss how they saw their particular vulnerabilities in relation to the threat of fire and what this would mean for how they would deal with them. We cannot say whether this was a result of not having closely considered the impact of fire, or whether there was an avoidance of imagining this event in their lives.

### *Stay and Defend*

As set out in Table 2 above, households 2 and 3 had made a prior decision to stay and defend and this is what they actually did in the event of the fire. They were well equipped and prepared. Household 2 presented as the most unified in their decision making and had also agreed that in the future they will move from the property once they no longer have the capacity to defend their house.

The decision-making for the household 3 appeared to be heavily influenced by the husband's attachment to family property: "I was born and bred on this property and if anything is worth fighting for, this is". Compared to household 2, this couple gave less attention in their account to the impact of physical, mental and emotional capacity to fight the fire on their decision making. The husband who has a mobility problem and normally relies on a walking stick fell many times while fighting the fire. The wife was unable to work outside during the fire, due to anxiety and lack of physical strength. Both are older aged. The husband's previous experience (in a professional capacity) in responding to the Ash Wednesday fires had assisted him in establishing a comprehensive roof and sprinkler system and in knowing how to defend his property against the fire front. However, by their own account, they feel fortunate that their son was home to assist them. At the time of the interview, the husband felt he probably would not stay to fight another fire and that he would be inclined to "act his age". However, at the time of the interview there had not yet been a discussion between the couple regarding the fire plan for the future.

### *Leave Early*

Interviewees 5, 6 and 8 planned to leave early in the event of a fire based on assessments of their circumstances.

Interviewee 5 and her partner had agreed that in the event of fire, she would leave early with their intellectually disabled son. The husband is away for much of the summer, working on contract with a land management agency in relation to fires. As they rent their property they have not invested in fire defence equipment and have no plans to do so. For the past five years there has also been insufficient water to use for fire fighting purposes. They know that they cannot rely on the CFA to assist them during a fire. After consideration of all of these factors, the interviewee and her partner agreed that her only option is to leave early. During the fire event, the husband was away from home, and advised his wife with details on the movements of the fire. She

left with their son, some three and a half hours before the front passed within 500 meters of their home.

Household 6 live in town and have a property out of town, on which they keep horses. The husband who uses crutches was very clear about the limitations of his physical abilities and that he and his wife together lack the capacity to fight a fire. Thus, their fire plan was to leave their property early, or not to go out to the property from their home in town. However, the male partner (interviewee) advised that his wife did not adhere to the plan. He felt that she placed herself at risk by prematurely returning to their property, due to her concern about the safety of their horses. The husband went out to the property together with his wife, after the front had passed and when it was safe to do so.

Household 8 discussed and reconfirmed their fire plan to leave early before the start of the 2005 fire season. The plan was based on an assessment of their lack of physical fitness to fight a fire – both being older and the husband having a neurological condition. However, due to lack of advanced warning they left only 10 minutes before the front reached their property. The fire moved rapidly and their property was close to its origin. Fortunately they correctly judged which direction to drive and avoided the fire - which destroyed all of their assets.

## Households with no agreed current plan

Four households have been categorised as not having an agreed or current fire plan. Household 1 is a couple who left when the Grampians fire broke out and went to stay in a nearby town with a family member. While this household had spent considerable resources on fire preparation, we have put them in this ("no *agreed* current plan") category as there were divided opinions between the couple as to what was the best plan, with the husband (who was reliant on a wheelchair) tending to talk of wanting to stay and defend, at the same time, noting his physical limitations. The wife had a clear picture of what she thought was best, which entailed leaving earlier than they actually left. Household 1 does not posses a vehicle that the husband can drive. The researchers were unclear on their future intent should a fire occur again.

Household 4, a single woman living alone, advised she really knew nothing of the idea of a 'plan' until she heard of the 'stay or go' policy and practice at a Community Meeting. Household 7 also a single woman living alone, had formed the intention that she would fully insure her home and then leave it in the event of a fire ("you can always replace belongings but not life"). She was still at home until she was finally warned by her neighbour that she had five minutes to leave.

The fourth household in this category (household 9) comprised a wife as carer looking after a husband who had a brain injury following a stroke. The couple had been farming for many years, and the husband had been a former member of the CFA. Their plan always when they were actively farming and their children were growing up, was to stay and defend. As they had got older and her husband's health had deteriorated, they had not formally revisited this plan. They had continued however to be conscious of reducing fuel loads around the house and using gravel rather than mulch. In the event, the wish of the wife was to leave the property (they had little warning and the fire was close). However, the husband refused to leave and the wife could not persuade him. A tradesman arrived and assisted the household to manage the fire.

# Information

## Prior experience of fire

Household 1 had experienced a fire in 2002, and reflected after this that the arrangements they had in place were “hopeless”. They had a pump but it was located at the dam and the male partner had become trapped in his wheelchair between the pump and the house. Since this fire they have put in another pump closer to the house on a 5000 gallon tank and have purchased bigger and custom made hoses. They keep an area of short grass around their house. This household began to prepare during the Black Range fire, but were not required to act until later in January.

Members of household 2 did not mention previous fire experience, but the husband had been an engineer and used this knowledge to carefully construct a home defence system. They began some mental preparation during the Black Range fire, as well as practical preparation such as priming their pumps, and put their plan into action by the time of the Grampians fire. They had 6000 gallons of water set aside for fire fighting and access to another 10 000. They had plenty of warning and had no thought of leaving their property.

The husband in Household 3 had been a Council employee and had also been involved in the Ash Wednesday fires. He had been building up their home defence system for about 10 years.

The husband in household 5 had seasonal work in a land management agency which dealt with fires, that resulted in some knowledge of fire behaviour.

The husband in Household 9 had been a member of the CFA, and the wife reported that as their children were growing up they maintained their home and surrounds carefully in relation to fire, and continued to do so to the extent that they were able. We have little information on previous fire experience of the remaining households.

## Exposure to Community Education

Of the nine sets of interviewees, only household 2 had attended community fire education meetings prior to the fire event. They had attended three meetings over the three years prior to the fire. These meetings had provided them with information about fire behaviour, preparation and defence of their house, and practical aspects of establishing a fire defence system. They had a verbally agreed fire plan and a united approach in implementing it, that they felt enabled to them to successfully protect their house. They recalled that the community fire education meetings were poorly attended.

The other interviewees did not recall opportunities to attend community education sessions and did not seek such opportunities.

## Information during the fire event

For seven of the 9 households, ABC radio was an important source of information about the general location of the fire. This information was one of sometimes several channels of information. Other channels included the local general store, community

meetings, phone calls and visits from friends and family, phone calls and visits to emergency services, local vantage points such as lookouts, general observation, and the internet.

### The local general store.

Interviewees 1 and 3 obtained updates and more specific local information about the progress of the fire from their local general stores. In one case the store provided advice about when to leave safely – which the interviewees followed.

### Community meetings.

Three sets of interviewees found that the community meetings provided the most accurate and detailed information about the advance of the fire front. They reported that the information provided at the meeting strongly reinforced the need to decide whether to stay or leave, emphasised the preparations and equipment required to defend properties and reminded residents that they would need to feel confident to fight the fire unassisted if they chose to stay. These interviewees found out about these meetings via the radio.

### Friends, family and neighbours.

Phone calls and visits from others concerned about their safety played important roles for three interviewees. In one case (household 5) the husband warned his wife to pack and leave using information that he had due to his work in a land management agency. This warning could be seen then as coming both from “family” but also using “expert knowledge” which was available to him through his work.

### Phone calls and visits to emergency services

The wife in household 9 advised that she tried to ascertain the fire risk by phoning the local CFA several times, and that she was reassured that they were safe and that the fire was not in their vicinity. She became more concerned when she could see a helicopter refilling from local dams, and shortly after this she saw fire trucks nearby carrying out back burning. She did not seek other sources of information. By the time they realised that the fire was approaching it was too late to leave safely.

The single woman in household 4 went to the CFA shed to seek further information, but due to her hearing impairment was not able to gain this information. She reported being asked for directions by an ambulance driver and also sought information from him but did not believe she received any response.

### The internet.

As soon as he smells smoke, Interviewee 6 is in the habit of checking the CFA and DSE web sites to find out the location of fires on private property or public land respectively. He also tunes into ABC radio if he thinks a fire is close enough to pose a threat.

### Local vantage points

Two households (households 4 and 6) spoke of going to a nearby vantage point to view the landscape.

### Observation

The member from household 4 made several observations from where she lived in town. These observations included the build up of emergency vehicles, particularly ones from a lot further away (she named Lismore and Camperdown), the activity outside the local hotel of fire service volunteers talking on radio networks and the fact that the Old Time Dance kept going despite its proximity to the CFA building. It was finally when she saw two loaders carrying bulldozers that she thought the situation was serious.

### Environmental information sources

The resident in household 7 smelt smoke and because of this decided to turn the radio on. She was not able however to piece together the information in such as way that spelt out a warning to her. Another woman (household 8) noticed two things on the morning of the fire – one was the higher than usual temperature on the gauge on their veranda, and the other was that her usually quiet horse was agitated. She commented on this to her husband, but they didn't take this information any further in their minds. It was only when a plane went over and made a "buzzing noise" (which the family have not been able to verify as a warning) that they looked outside and noticed the smoke.

The importance of multiple information sources is highlighted in the case of one household where the couple who stayed to fight the fire relied on ABC radio for general information in the lead-up to the Community Meeting, the Community Meeting for specific information immediately prior to the fire front, and the general store for updates during the week that followed the passage of the front.

## Responding to information

We note that in discussing response to information, we are aware that some residents' homes were nearer the origin of the fire, and therefore had less time to consider their responses than others.

### Reluctance to leave

Participants appeared to experience difficulty in piecing together information in a way that assured their safety. The resident in household 4 watched the sky change colour, sighted the increasing number of fire trucks and other equipment pass through town, and yet was also perplexed by some other activities, such as a local dance, continuing as if there was no danger. The single woman in household 7 received warnings by phone from three lots of friends over several hours, but didn't comprehend the risk she was facing until her neighbour came to tell her she had 5 minutes to leave. How much of this reflects a general reluctance to leave one's home, is not known. Other influences may have been some distrust of the information they were receiving, and some belief perhaps that the risk was exaggerated. Lack of prior fire experience may have been an influence, as may have lack of advice from a 'recognised authority'. Two women live in a town with an active CFA brigade and interpreted the lack of local advice as a lack of a fire threat. Another woman was waiting to hear familiar place names on the radio, so she could relate the fire to what she knew. Also, the fact that some residents' homes were nearer the origin of the fire, and had less time to respond to the fire than others, may have been a factor in their response. .

### Expectations about the quality of information available during the fire event

Interviewees 1 and 5 strongly expressed a need for more accurate local information that would allow them to pinpoint the location of the fire. They expressed disappointment over the inaccuracy of the information provided by ABC radio.

Two further interviewees also described the information provide by ABC radio as being general and not up to date. According to one it was "lagging reality by 1 to 1.5 hours". However, these interviewees did not express disappointment about this and both pro-actively obtained information from other sources. One of these interviewees also sourced information from the CFA and DSE web sites as well as from ABC radio. Some of these responses are set out below, and are noteworthy for the depth to which he had thought about these issues.

- He found that none of these sources of information enabled an accurate understanding of the location and progress of the fire, but he didn't expect them to due to the rapidly changing nature of bushfires.
- He feels that individual fire plans should be activated on the basis of broadly accurate information. Detailed information, which is likely to be inaccurate or not up to date, may provide a false sense of security and lead to poor (unsafe) decisions.
- He suggests that the CFA focus its communication resources on informing fire fighters so they can protect themselves and property and that the public's expectations around information and CFA resources could be better managed.

## Forms of assistance

Table 3 below summarises some of the formal and informal forms of assistance received by participants. By formal we mean assistance sought or gained from 'formal organizations', such as the emergency services. By informal we mean assistance at the family, neighbourhood or friendship level.

**Table 3: Formal and informal assistance received**

| | Household | Disability | Nature of assistance | Comments on assistance sought and received |
|---|---|---|---|---|
| 1 | Couple | Mobility – wheelchair bound. Unable to drive | Informal after the front. | Went to stay at a family member's flat in town. Visits by neighbours and relatives. Wife's prior experience with fire service in 2002 left her wondering if their lives were valued as highly as their neighbour's more considerable assets. Husband couldn't imagine the CFA doing any more than they do". Advised by neighbour about best use of their available water resources. |
| 2 | Couple | Neurological condition; variable and intermittent impact on mobility | Formal during front | Couple received CFA support before and during the fire fronts and also with moping up in the following week. Felt they would have lost the shed without CFA support. Expressed disappointment at the lack of follow up by local agency in relation to social events. Very concerned about inadequate property signage for future events. |

| | Household | Disability | Nature of assistance | Comments on assistance sought and received |
|---|---|---|---|---|
| **3** | Couple | Mobility issues further to back condition. Uses walking stick – | Informal after front | Believed they would not have managed without the help of their son. Friends were ringing police about their whereabouts. Expected but didn't get CFA assistance after the front. Assisted with delivery of water by son's employer after the front had gone through. Kept informed by general store. Believe emergency services need to have more 'local knowledge'. |
| **4** | Individual | Hearing Loss for over 25 years | Formal assistance sought during event. . Informal during fire event.. | Drove to nearby hill and observed smoke and rang two friends. A friend advised her three times of the danger, and finally to listen to the radio. She warned friends who seemed not to know there was a fire, about 2am. Advice sought from CFA and ambulance driver was not understood. After first fire began networking with vulnerable people in her community. |
| **5** | Individual – Partner absent | Intellectual disability | Informal from husband advising from a distance during event. | Woman home alone with disabled son. She passed the warning she had received from her husband onto her neighbours. After her departure with her son, neighbours did a back burn around their home. |
| **6** | Individual – partner absent | Mobility –need for crutches for about 20 years | Formal after front | CFA put in a control line near their property after the front. |
| **7** | Individual | Medical condition severely limiting mobility and requiring frequent hospitalizations. | Informal from friend and neighbour before and during front. | Interviewee was phoned around 9pm by a friend on a mobile phone (after the friend's power had been cut due to the fire) to warn her of impending danger. Then a neighbour visited her at 2am and advised her to make a decision and act on it within 5 minutes. Following a call from a friend to the police regarding her whereabouts, the police called on her to find she had already left. This person described her town as "cliquey" and that communication centred around the pub. Proposed the development of a 'warden' system to assist with community warnings. Would like to do more with and for her community but is restricted due to her health. . |
| **8** | Couple | Neurological condition impacting on mobility, cognition and vision. | Formal after front | Main contact was with formal bodies, whose advice they found wanting. Appreciated support from agencies, clubs and friends after losing home. Concerned about lack of local knowledge of fire crews and about lack of adequate signage. They feel they paid a price for living where they did. |
| **9** | Couple | Acquired Brain Injury following stroke. | Informal unexpected assistance during front,, and then formal assistance with mopping up. | Assisted by tradesman for several hours, before and after front. CFA involvement after the front had passed. |

## Formal assistance

Of the nine sets of interviewees, three experienced direct contact with the emergency services during the fire. For one couple this was a positive experience as they received assistance from the CFA to defend their property (described below). Two sets of interviewees perceived the contact to jeopardise their safety, a finding we discuss below, but mean to convey that they regarded the actions they took on advice from others as leading them into a more unsafe environment.

Five sets of interviewees did not seek and did not have contact with the emergency services during the fire. The interviewee who has experienced hearing loss visited her local CFA station but could not hear the conversation there and thus did not gain information which she could apply to her situation.

None of the interviewees held an expectation that the CFA would be able to assist them to defend their properties during the passage of the front. However, two individuals had expected that they would be informed of danger and advised when to leave through official channels.

One couple who live in a relatively remote location concluded that "You need to live right on a main road to obtain CFA back up in a fire". They observed that many crews were not local and didn't know the area and also noted that recent changes to road and property names would probably confuse non local and local crews.
Two sets of interviewees reported assistance from CFA crews in putting out spot fires over the week following the front and another interviewee noted that a control line had been bulldozed along one edge of his property.

Household 2 (a couple) live on a property readily accessed by a short driveway from a sealed road. Although they were prepared to defend their property on their own, they received a high level of CFA assistance. One fire unit helped them to wet down their property well before the front arrived and a second unit arrived immediately prior to the front and stayed until the couple felt the situation to be under control after the front had passed. The couple had no reason to believe that the CFA units were aware of the husband's medical condition either before or during the event. The symptoms of his medical condition abated during the crisis, a phenomenon documented in the medical literature. This couple also felt well supported by the offer of food by the Grampians Community Health Centre (GCHC) after the fire. They did feel disappointed about the lack of follow-up on the social events that the centre had announced it would organise after the fires as they felt themselves and others would have appreciated the opportunity to debrief.

Household 3 also defended their property, and received no formal assistance during the fire event or after the front had passed. This couple were well prepared and did not expect a fire fighting unit to assist them during the fire. However, they expressed considerable disappointment at what they saw to be a total absence of assistance from the CFA and other support services over the days and weeks following the front. Their house is not readily accessible being at the end of narrow, winding dirt track of a few kilometres that turns to sand for the last few hundred metres. However, they emphasised that a work colleague of their son's drove to their house in a 4WD only hours after the front had passed, suggesting that contact was manageable if the will to do so was present.

Household 3 also noted that many friends and relatives enquired about their safety with the police and the shire emergency centres but this failed to trigger any official check. They felt like the "authorities didn't know and didn't care". During the fire front and the week that followed they felt extremely isolated, "like they were the only people left alive – at the end of the world". Their phone line and power were cut. The husband drove to town to restock on fuel and food but didn't feel it was safe to do so and had trouble returning due to the road blocks. ("If they were so worried about my safety why didn't anyone come to check on us?") He was exhausted and preoccupied with putting out spot fires at home, and fell many times during this time.

Household 3 commented on what they saw to be a lack of coordination of the emergency services. They suggest that the coordinating function of overseeing the deployment of the CFA and police should be managed locally. In addition, protocols are required specifying roles and responsibilities regarding checking on people – especially those who are more vulnerable.

Advice from official sources was perceived by households 8 and 9 to jeopardise their personal safety. After fleeing their property, the couple from household 8 drove to a nearby town where they reported to the police. During the evening the police informed them that they had lost their home to the fires, and they were directed to the community hall to stay overnight. However, on arrival they found it dark and empty. On reporting back to the police they were then directed to another community facility in Hawkesbury. The wife queried this advice as she knew the fire had jumped the Hawkesbury-Farmers Road and that road blocks were in place. The police officer reiterated his direction and they left for Hawkesbury at about midnight in a state of distress and confusion. This state was greatly heightened by the experience of driving through burning trees they feared would fall on their car. The wife, who was the driver, suffers from asthma and was also concerned about smoke inhalation. She reported gasping for breath by the time they arrived in Hawkesbury.

Household 9 reported that they were given information by the CFA that they were not at risk in relation to the prevailing fire, which turned out not to be the case. The extent to which this advice jeopardised the couple's safety is unclear. However, the possibility is left open that if the wife had had more time, and the weight of 'official advice', she may have been able to persuade her husband to leave.

## Informal assistance

Four households reported receiving unexpected informal assistance with the defence of their properties. For couple 9, this was a tradesman arriving just before the fire front and staying to work with them for many hours. Interviewees 1 and 3 were surprised by the assistance of neighbours who had created fire breaks around their property after they had left. Household 3 described their son's boss arriving with his chain saw and water tanker just after the front.

The focus of the two town-based female interviewees (4 and 7) was on assisting other vulnerable residents known personally to them. After her experience of the Black Range Fire, interviewee 4 arranged to network by phone with 5 other residents during the Grampians fires that occurred three weeks later. These residents kept each other up to date and the interviewee drove to look-outs to check on the fire's progress and reported back to the group. She says that next time she would prioritise communicating with other people in the community who also live alone and/or are vulnerable. She would like to ensure that they are safe but she feels it would be difficult for her to transport them to safety on her own. This interviewee thinks it is very important that there is a coordinated plan to inform people with disabilities and those who are vulnerable in other ways (e.g., elderly, frail, immobile). She doesn't feel that this should be the responsibility of the CFA as they are preoccupied with fire fighting.

Due to her mobility difficulties, interviewee 7 felt that she couldn't physically assist other vulnerable people. However, she suggested that there should be a system of wardens who are designated residents in sections of town to physically visit (within town limits) or to phone (for further out of town). The wardens should ensure that they advise elderly, disabled or sick people and work from a checklist to facilitate this.

The wife in household 9 stated that in a future crisis she may require assistance with managing her infirm husband and managing fire defence. Household 5 noted that she would have liked to have access to respite care for her disabled son. She expressed a wish to return to her property if she had had some assistance with her son, noting that her neighbours had fire fighting equipment and she could have assisted them (had she been able to return to the region where she lived).

It is also important to note that some households had pre-existing informal agreements with their neighbours around caring for each other in ways which made for a stronger sense of community safety in general. One household member, for example, had an arrangement with her neighbour that they would look out for each other; one had a chronic illness which made her prone to falls, and her neighbour suffered from asthma. Both lived alone and were willing to respond to the other if called on. This relationship appeared to be critical in this fire event, in that it was the key medium for the relaying of the warning of the proximity of the fire.

# Agency Discussion and Decisions

Further to the commitment made by the researchers to bring the research results back to the agencies supporting the research, a workshop was held in Hall's Gap in June 2007. The workshop's intent was to elicit key issues participants saw in the report and to discuss ways in which agencies might be able to respond to some of these issues. Participants prioritised key issues via a facilitated scoring process. Table 4 below sets out the issues and how they were scored.

**Table 4: Prioritization of key issues by workshop participants.**

| | Issue | Participants score |
|---|---|---|
| **1** | **Education of people with special needs** | **19** |
| **2** | **Vulnerability of those with special needs** | **10** |
| 3 | Planning: Individual household | 8 |
| 4 | Information during fires | 8 |
| **5** | **Agency planning and coordination** | **7** |
| 6 | Role of carers/agencies as messengers | 2 |
| 7 | How can community development work among these issues | 2 |
| 8 | Information for friends/family | 0 |
| 9 | Care of people who leave | 0 |

In the time available, workshop participants discussed Issues 1 (Education of people with special needs), 2 (Vulnerability of those with special needs) and 5 (Agency Planning and Coordination). We set out below a brief summary of the issues discussed and decisions taken at the workshop. A full documentation of the discussion is held in Appendix 3, Agency Feedback on Research Findings.

Key issues discussed were:

## Issue 1: Education of those with special needs

- "Education" as a process has a large canvass, and there are 'educative' components in a range of media, from preparedness materials to media broadcasts during an event.
- Whether a preferred educative process is to target particular groups or households, or to aim for a trickle down effect through general community initiatives to those with special needs
- Ways in which educative materials need modifying to make them more accessible to households with special needs
- Ways in which particular special needs, including a broad range of social, psychological, physical and emotional needs, impact on a person's ability to take up an educative message and act on it
- Issues to consider when using 'mainstream' agency staff and also other family members as 'entry points' for fire preparedness information to special needs households
- What are the particular issues associated with more socially isolated households, and also those households where women appear to be the main carers for male partners, when those partners seem reluctant to consider leaving the property

- Managing community expectations, particularly where these pertain to the expectation of receiving information which is not available to the emergency services, such as is often the case in the early stages of a fire event
- What is the actual curriculum which CFA Community Education workers deliver
- How can mainstream (non emergency) agency staff develop confidence in knowing the range of education materials available to the community
- By what means can community members know that it is 'their responsibility' to look after their own safety
- What shared responsibility actually means, and how can it be known or experienced

## Issue 2: Vulnerability of those with special needs

- The increase in our aged population overall will increase vulnerability to fire, as increasing age may mean an overall decrease in the population's mobility, and increase in hearing loss and vision impairment.
- The importance of 'local knowledge' in the process of identifying those most at risk and also the informal networks which hold this knowledge at the community level
- Sometimes special knowledge, skills or approaches can be required to intervene with households with special needs

## Issue 3: Agency planning and coordination

- A major barrier to agency coordination is that both agencies and communities lack an understanding of the roles and responsibilities of emergency services
- Roles and responsibilities are also always evolving and are influenced by particular circumstances of a fire event
- Coordination is facilitated when there is local knowledge of the capacities of the infrastructure of local communities and local agencies
- Opportunities exist for increased coordination where agency services conduct an activity with similar goals to household preparedness for fire, such as the home maintenance service offered by Local Government
- Co location of Incident Management with community services during an event can increase communication
- Some agencies are more well represented at the prevention end of fire planning (such as the CFA) and less so at the 'response' end
- Systems for community members to register their movements during a fire event are not well understood
- There is a need to locate and develop opportunities for community members with special needs to participate in discussions about how a fire event may threaten them

# Solutions and Strategies

## Identifying those most at risk

- Understanding the ways agencies currently recognise those with special needs in relation to fire threat, and building on those processes and capacities
- Recognising the capacities of local communities and their leaders and how these people and their strengths link to formal services
- What if a community does not have these informal strengths at the local level
- Issues to consider in terms of registers of people with special needs include privacy, appropriateness, workload, accuracy, expectations of all parties, geographic area covered, and how a register might tie in with local informal community knowledge

## Organizational partnerships

- Agencies can collaborate with each other in disseminating key information to the community
- Some efforts to use families or carers as conduits for information about the threat of fire can be an unrealistic expectation and place too great a burden on them
- Ways to coordinate what are sometimes informal arrangements between services and households which link to the ability or willingness of a particular staff member, rather than being contained in a policy or general practice

## Types of interaction

- Participants placed emphasis on the importance of interaction with community members around the bushfire safety issues, rather than relying on 'information transfer' only
- With greater interaction, community members can tailor what they need for their particular circumstances
- Many people with special needs will need assistance in adapting the information available to their circumstances
- The decision to hold one day planning forums for people with special needs which arose at the workshop, was designed to address the need for an interactive process to address particular adaptations which may be required by households with special needs
- Some community education programs offered by the CFA are able to provide more focused interaction, such as Community Fireguard
- Other services such as the CFA/MFB Isolated Elderly program are relevant to the more vulnerable, but focus more on home fire safety rather than bushfire safety

## Publications and the Web

- Relevant publications and web based information were tabled and discussed, including CFA's Living in the Bush, DHS's Emergency Medical Information
- Current publications need to be extended to deal more specifically with those with special needs

### Strategy and planning

- DHS is setting up Local Government Emergency Recovery Committees. Vulnerable populations is also an issue in these planning processes.
- Municipal Emergency Management Committees and Municipal Emergency Recovery Committees form part of Local Government Municipal Emergency Management Plans
- Scope exists for the widening of the scope of these committees to specifically address households with special needs
- Other regional bodies exist, such as are coordinated by DHS, Red Cross, and the police

### Support services

- Workshop participants queried if households interviewed were linked to local services
- Systems for registration of household members when they have to leave their home are not well understood causing lost time looking for people

### Warnings and information during emergencies

- Incident Management teams are constantly evolving in relation to their capacity to extend the flow of information to more parties outside the requirements of operations
- Further modification of the Bushfire Information Line and Community Meetings held during a fire could increase information flow to special needs households
- The role of the ABC is also evolving
- The trail of the Community Information Warning System was supported, and this technology could be extended to address those with special needs

## Key decisions made at the workshop

Workshop participants made two key decisions. One was to hold a forum, or series of forums, for individuals and their carers around fire planning; the other was to decide on a structure for ongoing discussion.

Forum for educative support and facilitation around fire planning.

Workshop participants took up an invitation by Grampians Disability Advocacy Association that agencies hold a one day Forum for people with special needs and their families to receive facilitated hands on assistance to develop fire plans. This offer was met with enthusiasm by those present, with the Regional Community Educator from CFA offering to participate, and Rural Access offering to convene the working group. This work has now been carried out; comment on its outcomes is beyond the scope of this report. Interested readers should contact Rural Access for further details.

A ‘structure’ for ongoing discussion of these issues

Further to discussion about the role of Municipal Emergency Management Committee and the Municipal Emergency Recovery Committee being required to form part of Local Government Municipal Emergency Management Plans, a decision was taken that Ararat Rural City’s Emergency Management and Emergency Recovery Committee structures could be widened so as to address issues of planning for people with special needs. The Manager of Community Development at the Ararat Rural City agreed to take the issues discussed at the workshop into these two committees.

However, some workshop members raised the possibility that these committees might struggle to encompass the full range of issues and organizations (especially those not involved in emergency management) required to address the bushfire safety of people with special needs. The suggestion was made that perhaps there could be a sub-committee with this focus that feeds information to the Municipal Emergency Management committees. The Rural Access Coordinator who is already a member of the Municipal Emergency Management Committee expects she will monitor the pathways through which concerns of people with special needs are brought to the Committee.

The next section below builds on the output of the research findings and subsequent agency workshop to suggest some emerging themes and priorities.

# Emerging Themes and Priorities

This section pulls together key findings from the household interviews with some of the discussion in the agency workshop. It is designed to be more succinct to increase its potential utility for agencies in this and other regions who may wish to look at our conclusions for their applicability in their own area.

## Perceptions and reality of risk

The findings of this study confirm that people with special needs do live in remote locations, reducing their access to sources of help and social interaction. The combination of remoteness and physical, emotional or psychological vulnerabilities increases the level of risk faced during a bushfire. Whilst there is a need to respect people’s life choices, it is also important to raise awareness about the risks associated with these choices and to explore, together with members of the community, appropriate ways to address these risks.

This study would suggest that the bushfire safety for people with special needs is closely linked to:

- *Achieving a realistic understanding of risks faced*

  Some respondents in this study had carried out extensive measures to assist them prepare for a fire event, while others appeared to have an unrealistic or little understanding of risk. Among the possible reasons for this could be a lack of previous fire experience, lack of information, or a general belief that a fire threat would be unlikely. This group may face additional challenges in understanding how their limitations impact on preparing for and managing in a fire event.

- *Ability to conduct self assessment of capacities to deal with fire threats*

How can people with special needs, their families and carers be supported to recognise and address the ways in which physical, psychological or emotional vulnerabilities can affect personal and house survival?
Of the nine households interviewed in this study, only one interviewee clearly articulated the ways in which he could expect to be affected in a bushfire situation as a result of his disability and how this would affect his capacity defend his property.

- *The development of plans and responses appropriate to individual circumstances*.

Some of the complexities of bushfire planning for people with special needs are highlighted in the section on planning below. These complexities are reflected by the findings that almost half of the interviewees did not have an articulated household fire plan.

Participants of the stakeholder workshop highlighted the importance of being able to identify individuals at risk during a bushfire. Compiling lists of people with special needs was seen as potentially useful. However, concern was expressed that lists may convey a false sense of security through those listed believing that they will be rescued (as is thought to have happened in some instances during the Ash Wednesday fires).

Workshop participants also noted that local knowledge is crucial in identifying people with special needs. Reference was made to a process facilitated by the Cardinia Shire Council by which community members and agencies identified vulnerable people in the local community.

The findings of this study confirm the importance of local informal networks and local knowledge with many of the respondents receiving warnings and assistance from others in their community. Two interviewees also explicitly expressed a desire to assist other vulnerable people in a bushfire event. One stated that next time she would prioritise communicating with other people in her town who also live alone and /or are vulnerable. The second suggested that there should be a system of wardens who would contact elderly, disabled or sick people in the local area and work from a checklist to facilitate this. How agencies might respond to potential sources of community responsiveness glimpsed at in these responses from community members is discussed under “strengthening agency and community capacity to address bushfire safety with people with special needs” below.

## Perceptions of responsibilities

The stakeholder workshop noted that community members in general appear to hold unrealistic expectations of emergency services and that this there appears to be due to a low awareness about the roles and responsibilities of emergency services, the resources available to them, and the chaos associated with fire events.

In relation to fire service operational matters, none of the interviewees held an expectation that the CFA would be able to assist them to defend their properties during the passage of the front. However some of those interviewed expected that they might have received some assistance in the period following the front and spoke of feeling ‘abandoned’ by ‘the authorities’. Furthermore, two individuals had expected that they would be informed of a fire threat and advised when to leave through official channels.

In these two cases, lack of official advice was (incorrectly) interpreted as lack of impending danger.

The view was strongly expressed during the stakeholder workshop that community members must take responsibility for their own safety. Indeed within the small sample size of this study there was a wide variation in the extent to which people were proactive about preparing for a fire event, sourcing information before and during a fire and acting on information. Agency participants in the workshop also conveyed their willingness to continue to increase their involvement in sharing responsibility for community safety with community residents, and recognised that for many people to develop a fire plan requires some degree of interaction – that 'information' alone is seldom enough.

In trying to develop a shared responsibility for the bushfire safety for people with special needs, it may be useful to discuss:

- How do Emergency Services coordinate their advice to the community at times of crisis? In what ways can the Incident Management structures and processes be mindful of more vulnerable community members? What are the formal roles of the police, the fire services and the land management agencies? Where do the roles of those in formal positions of authority intersect with informal community based roles?
- How can structures and processes such as the Victorian Bushfire Information Line (VBIL) and Community Meetings during fire events be made more accessible to residents with special needs?
- Are there other (non emergency) services which could be drawn into assisting with warnings of an imminent threat to those with special needs?
- How can emergency and support services recognise and address the ways in which special needs can affect personal and house survival?
- How can agencies that provide services to residents with special needs assist in increasing their fire awareness and their ability to make decisions that enhance their safety?
- How people with special needs, their families and carers be encouraged to recognize the risks they face and take responsibility for ensuring their own safety.

## Individual and household planning

There are clear benefits to having a household plan. It becomes a point of reference, a focus for discussion about bushfire safety, and importantly can create a short cut to action in the 'heat of the moment'. However as illustrated by the experiences of the interviewees, achieving a shared household fire plan can be difficult - and following it in a fire crisis, even more so. This appears to be due to differences that can exist between household members with regard to priorities, perceptions of risk and safety, assessments of physical, emotional and psychological capacities to deal with fire threats, and the effects of changes in brain functioning in a crisis and the impact of this on decision-making. Accepting a plan to leave early appeared to be difficult to some of the men in this study – perhaps akin to an act of defeat or a failure.

The participants of the stakeholder workshop viewed bushfire planning as vital but also complex because of the factors described above. In addition, it was acknowledged that extreme circumstances can force the abandonment of plans to leave early. One workshop participant who was a (bushfire) community educator noted that she encourages people who decide to leave early to have a fall-back plan in case they are prevented from early departure.

As described earlier in this report, the Australasian Fire Authorities Council suggests that "people who plan to leave early should recognise that on days of very high or extreme fire danger bushfires may break out nearby and spread at a rate that leaves very little time to relocate." It also recommends that people who do not have the physical, emotional or mental capacity to cope with bushfire should relocate well before fire impacts their area.

The findings of this study would suggest that there is a need to encourage community members and particularly people with special needs to think through clearly what leaving early may mean in their circumstance.

The small sample of interviewees in this study spanned the full range of 'planning' and 'preparedness' that has been observed in many other community settings. However, it was observed at the stakeholder workshop that an extra layer of complexity can exist with respect to fire planning for people with special needs. This is due to physical, emotional, or psychological vulnerabilities as well as social isolation. These factors may mean that for many people with special needs it is unrealistic to expect them and their families to be able to develop a fire plan without assistance. This is particularly so for people experiencing cognitive impairment. A decision was made at the stakeholder workshop, to hold forums throughout the Grampians region to provide people with special needs, their family members, carers, and health and community services workers with information relevant to their circumstances and with support to develop practical fire plans.

In conclusion, the question arises: How can fire plans effectively address special needs? Are there any 'best practice' scenarios that can be drawn on, or is this work best conducted locality by locality, factoring in household and community strengths and capacities?

## Informing and educating people with special needs

The findings of this study indicate a low rate of attendance of community fire education meetings (such as Community Fire Guard) prior to the Grampians fires – with only one household participating in such meetings. Although this household was greatly assisted by the meetings in defending their property, they reported a poor attendance by other community members. The other interviewees did not recall opportunities to attend community education sessions. This may indicate that an opportunity exists to increase the number of educational meetings in the region and to more actively promote (perhaps with more assistance from other local agencies) the dissemination of information about meetings.

During the fire event, all but one of the households actively attempted to source information about the location and progress of the fire via various combinations of information sources. These included ABC radio, the local general store, community meetings, phone calls and visits from friends and family, phone calls and visits to emergency services, local lookouts, observing environmental cues and use of the internet. This research highlights the importance of multiple channels of information and that the responsible agencies need to continue their efforts to ensure that this information is accessible to all those potentially affected by bushfires.

The stakeholder workshop felt that while these findings are similar to the way in which the general community sources information, there are extra barriers faced by

many people with special needs with regard to gaining and using information. These hurdles relate to:

- Reduced access to knowledge about information sources
- lack of bushfire safety information that is accessible to all
- difficulties for many in interpreting risk in the light of their circumstances
- social isolation

Two interviewees also felt left out of the information loop in their local communities due to not being part of the local (hotel based) clientele, a setting more familiar to some members of CFA brigades. This points to the need to examine what systems or procedures could be developed to ensure that 'local information' held by brigade members in the course of their duties, can be made available to community members without these affiliations. Workshop participants also noted that some community members in the research study conveyed that they may have been persuaded to act if the message of the threat had come from someone in a formally recognised role.

Workshop participants identified the development and dissemination of accessible information as the key challenge with regard to informing and educating people with special needs. Implicit within this is the need to be able to effectively identify and access this group of people. Workshop participants also emphasised among the messages to the community should be included the idea that there are limitations to the clarity of the message about an actual fire in the early phase of a fire event.

Opportunities were identified for agency workers and for carers of people with special needs to convey information about bushfire safety and about available resources and services. However, workshop participants felt that the role of agency workers should be limited to information sharing and not education about fire planning. The rationale offered was that it can take many years to gain a solid appreciation of the issues to be addressed in planning for fire. It was also noted that while workers can take information to clients, they must seek the permission of the client before they can identify them to another agency.

In order to share information with clients, workers must be familiar with the information resources available. In recent years, the CFA has been working with service providers and carers to equip them to support and inform people with special needs with regard to bushfire safety and would like to extend this work to include a wider group of service providers.

There are likely to be a significant number of vulnerable residents in bushfire risk areas who do not identify as having a special need, are not accessing services, and are therefore unknown to local service providers. More discussion is required between agencies in the region as to an appropriate local response to this issue.

## Agency planning and coordination

Workshop participants viewed planning by agencies and by households and communities as critical. Better sharing of information between agencies and between agencies and community networks was identified as a pre-condition for effective planning.

Some agencies are already engaged in collaborative 'cross agency' work. For example:

- Vision Australia is increasingly working with services catering for the needs of people with hearing impairment.
- Parks Victoria, DSE, CFA and Local Government are collaborating on the "Fire Ready Victoria" program which will soon include The Integrated Fire Management Planning Framework.
- Police and Fire Brigades offer a program to schools in the Pomonal / Hall's Gap area.
- DSE and Parks Vic focus work together the bushfire education of the Parks' visitors.

The DHS is facilitating the establishment of Local Government Emergency Recovery Committees across high fire risk shires. There is now a commitment in every shire to establish such a committee and most are now ready for their initial meeting. (Due the recent bushfires, the Rural City of Ararat is well progressed).

While these committees assist in the integration of the response and recovery aspects of emergency management, some limitations were identified by workshop participants for their potential to improve the bushfire safety of people with special needs. For example, the composition of committees does not encompass the range of organizations (especially those not involved in emergency management) required to address the bushfire safety of people with special needs. In addition, the CFA is represented on Prevention Planning Committees at Local Government level, but not typically on Emergency Response and Recovery Committees.

There is also the reality that local government emergency management rarely receives the dedicated on-going funding that would ensure effective development and implementation of strategies. Currently emergency management is an "add on" to other work and/or relies on temporary positions.

Discussion at the workshop identified that for Local Government Emergency Recovery Committees to effectively address the bushfire safety of people with special needs the following factors are important: identifying vulnerable groups; communication between sectors; and knowledge of the geographic location of fire risk areas (as can be provided by CFA); understanding the issues of concern to people with special needs.

The findings of this study highlight two practical issues requiring interagency coordination that affects the safety of people with special needs:

- Lack of good systems for registering when people leave during an emergency and where they go. In addition people are not using the systems that do exist. There is a need to raise awareness about these systems. There is also a need for a standardized way residents who are leaving a district can inform someone. Much time was wasted by Emergency Services in the Grampians fires looking for people reported missing, but who had already left the district.
- Lack of road signage and inconsistencies between current shire boundaries and road names and what was seen by some as a lessening of local detail on current CFA maps used by crews. This is of particular concern due to the predominance of non-local fire crews during a large fire event.

# Strengthening agencies and community capacity to address the bushfire safety of people with special needs

It was felt by workshop participants that there needs to be greater community and agency awareness of the role of emergency services and of available programs and services provided by community and government organisations. Agencies were also urged to recognize that they 'don't know it all' and that they need to ensure that they understand community needs. In particular it was emphasized that Emergency Management agencies need to be mindful of community issues and services and the capacities that exist in the community.

Some questions that came out of the workshop discussions were:

- How to increase local knowledge of the ways in which agencies are currently seeking to strengthen community networks and how these activities strengthen community safety?
- In what ways can these local community networks be linked to formal services?
- How do we collate information about community networks, how and where these interact or could interact with formal services, and in what ways these interactions contribute to greater community safety?

The research findings indicate that there is a willingness within communities to network and to take action to ensure the bush fire safety of vulnerable community members. Some issues that emerge from the study are:

- What are the responsibilities of the "neighbourhood" who may know residents with special needs? How can the assistance provided by neighbours be supported and encouraged?
- How can those community members who are motivated to do more work in this area, be supported, encouraged and where necessary guided by agencies?
- How can community based organizations such as general stores be supported to fulfil the valuable roles they play in community crises such as bushfires?
- How can agencies ensure that they acknowledge and strengthen community networks which already exist and link them to formal services?

It would appear that an opportunity exists for formal services to "capture" the willingness of community members to ensure the safety of others by understanding, strengthening and building on the capacities that exist within communities.

Some recognised community development principles that may assist in this regard are:

- **Understanding:** listening to community concerns and ideas about strategies for safety, appreciating and documenting community knowledge

- **Strengthening:** identifying community leaders, providing resources for community organisation and networking, sharing information, building capacity (leadership, organizational, technical eg: understanding fire risk and safety), facilitating discussion amongst relevant individuals, community organizations, and formal agencies.

- **Building on the capacities that exist in communities**: linking community networks with each other and with formal services; combining agency and community knowledge; defining roles and responsibilities.

An example of a multi-agency and community partnership project provided to the stakeholder workshop is the Hall's Gap Community Safety Project. It started in 1999 and has conducted a number of initiatives, one of which is the annual green waste clean-up event in Halls Gap. The program provides free access to the tip and a truck and loader to remove green waste. It also serves as a prompt to the wider community about the need to prepare for wildfires. The planning committee for this year now includes several community representatives.

# Conclusion

The interviews with community members and subsequent discussions with agencies at the workshop in June 2007, provides an overview of some of the issues which need to be considered and acted upon by communities and agencies in their efforts to increase community safety particularly of those with special needs in relation to the threat of fire. This will always be a work in progress. This research does not report on the subsequent work undertaken in the region following this research. It does however, point to some themes other regions may find useful in addressing these issues.

The research highlights the importance of seeking links between all parties, agencies and communities, in the "PPRR" cycle – the prevention, preparedness, response and recovery aspects of the Emergency Management cycle. In the agency workshop, members from the emergency services and community services found themselves in conversations about their roles in various aspects of the PPRR cycle, and found some of the information shared in these conversations useful. Other regions may seek to establish such opportunities, so they can form a clearer picture of where the gaps might be in community safety in relation to the threat of fire. The key issues highlighted in the previous section may assist others in that discussion.

Another challenge is for agencies to find ways to understand what community members already know, and also what they see as their particular needs for assistance. While this research highlights some of the limitations of those households where there were particular needs, it also points to the need to find appropriate channels to consult with households about their preferred ways of maximising their chances of safety in a bushfire. This will always be a work in progress, given the changes in households, in regional demographics, in socio economic status of residents, in resources available from agencies for the task of increasing community safety, the gradually changing policy climate of 'shared responsibility' for community safety, and the overall enormity and complexity of the task.

There is no one formula for the best mix of community members, agencies, and emergency management planners with whom to engage in seeking this understanding. This will vary from community to community. What we do know, from the resilience literature, is that "creativity" is a key aspect of resilience. So the idea of creating space and offering support while people work through how they wish to prepare for and respond to a crisis, goes to the heart of creativity. The improvisation and innovation shown by the agencies in this study in their decision to work together to address some of the needs highlighted in this study, could be seen as one example of such creativity. What sorts of contexts are required to support households

members themselves, either those with special needs or those caring for them, to identify and act on what they need to know or do to increase their safety in the event of a bushfire, are yet to be identified. Efforts to achieve this level of safety may require additional funds, the capacity of agencies to recognise the desire in the community where it exists to work on these issues, the willingness of service providers to offer particular forms of fire safety assistance, their willingness to work collaboratively with others on these tasks, and the strategic guiding hand of government where required. It seems to us that many people in other parts of the world are watching Australia's efforts to implement the 'stay or go' policy. The very tangible challenges to the policy evident in this research will require more thought, action and creativity.

At present, it appears that most of the resources, expertise and power in relation to fire safety are housed at the agency level. If agencies want communities to accept greater responsibility for their own safety, they need to ensure that these communities have the opportunities to become informed active participants in decision making. How the way can be paved for community members to play a stronger role in all the phases of the PPRR cycle can be explored through iterative cycles of learning in local areas, where current policies, attitudes, beliefs and practices can be captured, reflected on, and new practices enacted.

# Appendix 1: Guiding Questions for Research Interviews

1. Could you tell me what happened to you at the time of the fires?
   - Verify which fires households were affected by
   - How did it progress? What did you do? (chronology of actions).
   - Who else was involved? Eg: family? neighbours? others?
   - Did you feel your safety was threatened? Your property?

2. What were your main concerns?
   - Before, during, after the fire

3. Was leaving your property something you thought about? Were there any particular issues you needed to consider? Any particular fears or worries?

4. Were any of the emergency service people you came into contact with aware of your particular circumstances? Were they able to offer (appropriate) assistance?

5. Were you able to obtain information to help you make decisions in relation to the fire (at any stage)?
   - How; if so what information?
   - How useful was that information?
   - Could it be improved? (content /mode of communication)

6. Is there anything you or your family would do differently to be safer next time?

7. Is there anything others could do to improve you and your family's safety in the event of another fire?
   - (try to gain specific responses about *who* and *what)*

8. Do you have any other comments or ideas in relation to the bushfire safety of people with special needs?

# Appendix 2: Case Summaries

The numbering of the case studies below follows that of the participating households. Summaries for Households 4 and 5 are not available. Pseudonyms are used, and some other details changed to reduce identifiability.

***1: John and Rachel***

John and Rachel are in their early 60's and live at the end of a bush track 2 kilometres from the bitumen road, on land which is largely cleared but which they hope to revegetate. John has been wheelchair bound for many years, following an accident in his youth. While agile in his chair he is not able to drive the family car, which is not fitted with the appropriate hand controls, something he regrets. Rachel appears to hold some reservations about him driving.

John and Rachel have had two fire experiences - this one and one three years ago. During the earlier one, John was home alone but was able to call Rachel who got home just as the smoke was becoming thick. While they had a fire break around the house, they felt they were unprepared in relation to accessible fire defence equipment. Rachel particularly felt aggrieved that the CFA, who were in attendance at this first fire, appeared to her to give higher priority to the neighbour's place than their own. Her beliefs as to why they did that moved between some recognition that this might have saved the fire spreading into some nearby bush, to believing their lives were worth less than their neighbour's assets. Since this fire John and Rachel have purchased additional fire fighting equipment, including pumps, hoses and tanks.

On the evening of the day of the second fire (2006) John and Rachel went into town where they had access to family owned accommodation. They returned to their property the next morning, stayed there for another three days and again moved back into town, stayed one more night in town, and then John returned home by taxi, while Rachel went to work. The fire had come to within 500 metres of their property, and in their absence, a neighbour, who also helped other residents, had put a break around their home with a grader. The equipment they had purchased after their first fire experience was not used.

John voiced feelings of having wanted to stay and a belief they 'could have' managed, while also noting that it would take two able bodied people to manage with the fire front. John wants more fire defence systems such as roof sprinklers, but also noted that as one has to be there to turn them on, they may not be worth buying. Rachel would have liked to have left earlier than they did.

Both John and Rachel did not expect the CFA to help them in particular, and John praised their efforts, saying that he couldn't imagine that they could do "any more than they do". John felt more specific local information on the fire behaviour is needed to guide CFA decision making, and also noted that he often could not work out where the fire was from the radio. John and Rachel did not think the CFA knew of John's disability.

Friends and neighbours contacted and visited in the time leading up to the fire, but were more caught up protecting their own place during the fires. John and Rachel received information from the ABC, and the General Store.

Their future planning was not clear.

***2: Michael and Adrienne***

Michael and Adrienne are in their mid to late 60's, and live on a largely cleared property close to a main road. Michael has a degenerative neurological condition, which impairs his mobility. The symptoms which accompany his condition were reduced during the fire due to the stress.

They had attended 3 Community FireGuard meetings over 2-3 years which they believed had assisted them gain knowledge of fire behaviour, weather conditions, and management of foliage. Michael's professional background also contributed to his understanding of fire prevention measures.

Michael and Adrienne first heard of the lightning strike and the risk of fire on the ABC radio, and then attended a Community Meeting the following day. This meeting helped them to put in place the arrangements they had made over some years, as to how they would defend their home. They had attended to some preparatory detail during the New Year's Eve fire. They experienced two fronts, three days apart. The CFA assisted at the time of the first front by helping wet down the house and when the front arrived, there were two CFA vehicles on their property. They believed that neither their lives nor their home were at risk. They had expected they would not receive assistance from the fire service (as was reiterated at the Community Meeting). However they believe that without the CFA may not have saved their shed.

Adrienne would have liked the Health Centre to have run the social events they had talked of, as in her view, people needed to talk but were too busy to organize something themselves. Adrienne and Michael have added longer hoses to their defence measures, as their hoses were too short given the direction the fire came in, a direction which surprised them. They have decided if the health of either deteriorates, they will not stay and defend their home.

They remain concerned that their home cannot be easily located by the Emergency Services of any kind. Local Government amalgamations has led to allocation of new addresses which have not been transferred to maps. They heard from neighbours that these map problems prevented some people from being located by the CFA. They suggested GPS references should be used instead of Shire addresses.

***3: Ron and Sara***

Ron and Sara are in their late 60's, and live on a partly cleared block abutting a National Park, off a bitumen road at the end of a 2 kilometre dirt and in parts sandy track. Ron grew up in this area and the home he grew up in was nearby on the same property. Ron was strongly motivated to protect the property. Ron suffers from severe back pain and limited mobility, and walks with a stick. They live with their son who was home at the time of the fire and was seen to play a vital role.

They had decided they would stay with their property and had attended a Community Meeting. They were expecting the wind change that heralded the fire front. However, Sara said she panicked late in the day as they watched the worsening smoke and she wanted to leave, but Ron advised her against this on the grounds that it may increase the danger she faced. She attempted to ring her adult children who lived elsewhere, to say goodbye. They believe they would not have saved the home had it not been for their son.

Ron had a background in local government work and had fought the Ash Wednesday fires. He had been building his defence system over a number of years, a system

which included roof sprinklers. They had kept the grass short around the home and wet it down the day of the fire, as well as ploughing a fire break around the home. They saved their own home but lost a shed, and the home Ron had grown up in.

Ron and Sara felt abandoned after the fires. They heard later that the many friends and family who called the 'authorities' reporting that they could not raise them by phone, were referred by the police to the evacuation centres. Ron and Sara felt that these calls might have triggered a response somewhere they might need checking up on. They felt the "authorities didn't know and didn't care".

Ron realized they would not receive assistance from the CFA at the time of the front, but had thought they might after the front had passed. They were told of 30-40 trucks being stationed at a nearby township during the fires. Ron and Sara felt there was a need for better and more locally informed controller of emergency services, to reduce the difficulty in knowing where to deploy resources to. They also thought that the 'authorities' need better protocols on checking on people after the fire, particularly if they are vulnerable. They noted there were road blocks on their road in the days after the fire, when they were trying to get through for food and fuel and had trouble getting back home. "If they were so worried about my safety why didn't anyone come to check on us". They were relieved to receive help from a friend of their son's who came with water in the early hours of the morning, after the front had passed. Ron and Sara were also critical of the decision to send people to Stawell for refuge, when getting there was also dangerous.

They thought the information on the radio "lagged reality" by 1.5 hours. They benefited greatly from the information from the local store after the fire, but felt the store could have been supported with some people from the 'authorities' to relieve the burden of the store owners.

Ron expressed strong emotions about the prospect of perhaps next time not being able to stay and defend, while also talking of his improving his defence system. They have already bought a mobile phone since the fires, and believe everyone should have one, particularly the elderly.

### *6: Daniel and Katrina*

Daniel and Katrina live in a small town but own a block which borders the National Park, about 20 minutes away on which they have a small number of horses and a shed. They hope to build a home on this land in the future.

Daniel uses crutches to assist his mobility following an accident in his youth. On New Year's Eve they were aware of the Deep Lead fire. They found information about the fire on the CFA website, after smelling smoke. Realising there was a threat to their horses, Katrina went out to the block to check on the situation. Katrina moved the horses and closed gates to ensure the horses were all together in a bare area. She went home but still felt extremely worried and decided it might be better to at least remove two of the horses.

Katrina and Daniel then watched the course of this fire from a nearby lookout. Although Daniel wasn't keen on this idea Katrina returned to the block, However, once there, she became aware that the fire was much closer, and could feel some heat from the approaching front, although no flames were visible for topographical reasons. Given the long driveway between the road and the horses' location, she decided that any delay in loading the horses - one of them was often difficult to load -

could potentially lead to her having to drive out directly towards an oncoming fire. This clearly being risky, Katrina turned back towards home. By this time traffic was being blocked from entering the area.

On their return to the block the next morning, they discovered that the fire had only burnt a small part of their block and that a bulldozer had put a control line along one side of their property. They blacked out fire spots over the next three days.

Since the fire Daniel and Katrina have bought a fire pump and small tank which they can put on their ute to enable them to pump water from the dam to protect the sheds and horses. During the following year they increased their clearing of tree debris and with the fire pump on hand, had the confidence to do a burn-off. Daniel's future plan would be to wet down the shed, put the horses in the one bare paddock, and then for them both to leave. He has made a clear decision that his limited mobility means that could not defend their land or stock.

Now that Katrina has seen from experience that the horses can survive a fire if left in a bare area, she agrees that this is the preferred option. She would like to move them well ahead of the fire if there was sufficient warning. However, once they are living on the block, Daniel and Katrina would have conflicting views as to what to do: Katrina would want to stay and defend the home while Daniel would like to evacuate well ahead of the fire. Possibly if all precautions were taken ahead of time, Katrina would evacuate with Daniel rather than defend the home all alone.

Daniel is familiar with and skilled at reading the internet based information sources, such as the DSE and the CFA websites. He noted however that while he understood the need to name fires at their point of origin, he believes that this becomes misleading, once fires spread into several fronts. He finds the radio more useful for rapid updates when property is endangered, but believes that sometimes the radio information is too detailed. He thinks that when you are listening to details of fire threats not in your immediate environment, this can lull you into a false sense of security and be a barrier to taking appropriate defensive action. He believes the public's expectations around information could be better managed, and that the communication resources should be focused on protection of the firefighters in their role of protecting property.

### *7: Alice*

Alice is in her mid 60's and has lived alone in town for several decades. Her adult children live in other parts of the state. Her mobility is limited due to a degenerative condition which had contributed to lengthy hospital admissions over the last 5 years.

Alice smelt smoke and tuned into the ABC which she said gave 5-10 minute updates, but despite this she could not discern that the fire was approaching until she was phoned by a widowed farming friend who lived about 30 kilometres away, who told Alice that she could see smoke and flames near her, and she had no power or landline phone. Alice advised this friend to leave. Alice was also phoned a couple of times by another female friend who lived about 20 kms in another direction, who invited Alice to come and stay with her. The first advice she had from someone in her immediate neighbourhood was when her neighbour, a man who also lived alone, came over at 2am and advised her to leave. Alice says he also warned a number of other residents in their part of town. An early departure had been her plan, as she could not fight the fire, she was anxious about some nearby petrol tanks, she was limited in her ability to reduce the fuel load on her property, and she was fully insured. In the event, the fire was quite close when she left, and she drove through

conditions of poor visibility, with emergency services vehicles on the road. After she left she was told the police had come to her home, as a friend had alerted them that they could not raise her by phone. Alice later realized that there were others who got no warning, such as someone known to Alice who is very frail and has a serious illness, who did not leave the town. Alice returned two days later when she heard on the radio that it was safe to do so.

Alice has a mutually supportive relationship with her neighbour, and they have an agreement to assist each other in times of crisis. The neighbour has helped Alice to her feet after a fall when she could not get up and the neighbour also has a medical condition which could require Alice's assistance. The neighbour has connections with the 'pub group' which typically holds information about emergencies when they are occurring. In the main Alice finds the town 'cliquey' - she feels like an outsider, although she does have several close friends, and also plays a lead role in group whose members have a similar medication condition to her own.

Alice believes that all those who have some physical limitations "should be systematically contacted". She suggests a system of 'wardens' with designated areas of particular responsibility. She would like to do more herself but doesn't feel physically able to do so.

***8: David and Genevieve***

David and Genevieve, who are in their early 70's, live in town now, after their property was destroyed by the fire. They had lived at this property in a home they had built, a few kilometres off the main road, for two decades. They had planted hundreds of trees, and kept some livestock. David has a neurological condition which affects his vision, mobility, and the speed with which he can think and make decisions.

Genevieve remembers the animals being jittery the day of the fire, and that the temperature gauge on their veranda was very high, and while she commented on this to David she did not think more about this until they heard a noise from an overhead plane which Genevieve thought might have been a warning signal. This caused her to look outside, and it was then that she saw the flames. She said they panicked, grabbed some items and left in the one car. David was having difficulty making decisions, and Genevieve was struggling to breathe, with her asthma. They were told the first fire front came through their property about 10 minutes after they left, and a second one some time later when the wind direction changed. They had a trailer mounted with a fire pump and tank, but had decided a few years earlier that they were no longer fit enough to fight a fire, a decision they revisited in subsequent fire seasons to check each others' thinking. They did not need to revisit this decision on the day of the fire. Had they had more time, Genevieve would have liked to block the down pipes and fill the gutters with water.

Due to their state of mind they had difficulty accepting offers of hospitality when they got to town, and took the advice of the police to go to a community hall overnight. When they got to the hall it was dark and empty and then took further advice from the police to go to a nearby town, which necessitated driving in dangerous conditions through burning trees, which worsened their already distressed state. They were assisted on arrival at this town, and then referred on to a motel. They learned on their arrival that the accommodation was fully booked for fire-fighters. Genevieve pleaded successfully to be able to stay. Following the fire, Genevieve felt supported by many of those who offered assistance, but David was overwhelmed by the number and diversity of organizations offering assistance. David recounts little memory of the

events, and believes this is a coping mechanism for him, given the extent of their losses.

David and Genevieve feel that by living in a more remote place, they “paid the price”, in that they had no CFA protection for their house. They felt that one needed to live on a main road to gain this sort of protection. They did have crews comb the property for smouldering logs in the weeks after the fire. They were concerned that non local crews do not know the district and that recent road name changes would worsen the lack of local knowledge. David wondered if there could be some standardized way of property owners indicating if they had left their property or required assistance, so the fire service could prioritize their actions and avoid the crews putting themselves at further risk.

While David and Genevieve had not attended any community education sessions and were not aware of any having been held in the area, they learnt of the need to have a fire plan from radio announcements.

***9: Barbara and Alan***

Barbara and Alan live on a farming property, which they have owned and run for many years. One of their sons is now involved in part of the farming business, but was not present on the day of the fire.

Barbara and Alan have three adult children. Alan has in the past been a member of the CFA, and they had always planned to stay and fight a fire. Barbara said her husband knew what to do and that she has also grown up with knowledge of living in bushfire prone areas. Their plan to stay and defend was also their plan when their children were younger.

However their life has changed with Alan experiencing some cognitive and physical impairments following a stroke 20 years ago.

At the time of the New Year’s Eve fire, Barbara was inside ironing. She first noticed smoke and then sighted a helicopter drawing water from one of their dams. Shortly after this she saw fire trucks and fire service personnel attempting a back burn into the forest. At around the same time, a neighbour came and told her that the fire was close. She couldn’t see flames, as the smoke was too thick. Initially Barbara wanted to leave, and had begun to pack the car, but Alan would not go.

Barbara filled sinks, baths, buckets – anything that could hold water. She shut the curtains to reduce the radiant heat. One aspect of her plan which did not work, was that by the time she went to fill her gutters, she had no water pressure. She commented that it was coincidental that just prior to Christmas she had read a check list of how to prepare in a rural newspaper , which she said served to refresh her knowledge. She had hessian sacks in sinks to assist with putting out fire.

Barbara received an unexpected visit from a tradesman who had come to help her, knowing she would essentially be on her own. He worked with Barbara to move the cattle into yards, which saved them. “Without him things would have been different”. She said his presence calmed her and she felt she could trust this person. They were not able to save the sheep. At the time of the front, they took shelter, although Barbara commented that she didn’t know the front had arrived, as she could not see flames, but said that it sounded like a train. The tradesman saw the hay catch fire and he put it out with wet hessian sacks.

Some time after Barbara sighted the fire service nearby, the wind changed. The back burning operation was ceased and the fire crews withdrew (and returned subsequently). The fire front passed over the house, burning the shade mesh in the garden. She waited about five minutes, and then came out to find that things weren't 'too bad'. There was fire in the machinery shed, and the tractor tires pulling the grader caught alight. A firemen said that they had done a good job – that she had a good fire plan, had cleared around the house, and had put down gravel. She said that she was told that otherwise she may not have saved the place. She worked on spot fires all night. While Alan could not initially help her, he was subsequently able to do so, by filling buckets.

During the night fire trucks worked up and down the road and on one occasion came in to assist with a tree which was hard to put out, and to put out a heap of fence posts as sparks were being blown onto the house and loose hay.

Barbara initially felt that the best decision would have been for her and Alan to leave, if they could have, and if Alan had been able to cooperate with her. She said that one of the firemen had said - you had better get out – to which she said: where do I go? He said he didn't know, but just to get out.

However, Barbara has since changed her mind and has decided to stay in the event of a future fire. This has taken some time to work through. She feels however that as a carer she would have liked to have had timely information about where she might have gone had she been able to get Alan to leave. She feels too that there are some things which people could be taught about, such as the best ways to water down a house. Also, people who are new in communities would really struggle with what to do and where to go. She noted that she would now struggle with clearing gutters but that she has adult children who can assist her, but that this is not everyone's situation. She does not see any end in sight with the tensions between the policies which restrict tree felling and those policies which encourage home safety and cleared land around your house. Other external societal changes which impede safety are that we now live in a more litigious society, and people are now more concerned about liability issues.

# Appendix 3: Results of Agency workshop

As reported above, the researchers meet with agency staff in a workshop at Hall's Gap on 18 June 2007. The duration of the workshop was 4.5 hours. The workshop's intent was to elicit key issues participants saw in the report and to discuss ways in which agencies might be able to respond to some of these issues. Participants prioritised key issues via a facilitated scoring process. Table 4 below sets out the issues and how they were scored.

**Table 4: Prioritization of key issues by workshop participants.**

| | Issue | Participants score |
|---|---|---|
| **1** | **Education of people with special needs** | **19** |
| **2** | **Vulnerability of those with special needs** | **10** |
| 3 | Planning: Individual household | 8 |
| 4 | Information during fires | 8 |
| **5** | **Agency planning and coordination** | **7** |
| 6 | Role of carers/agencies as messengers | 2 |
| 7 | How can community development work among these issues | 2 |
| 8 | Information for friends/family | 0 |
| 9 | Care of people who leave | 0 |

In the time available, workshop participants discussed Issues 1 (Education of people with special needs), 2 (Vulnerability of those with special needs) and 5 (Agency Planning and Coordination).

Towards the end of the workshop there was a short amount of time remaining and participants agreed to finish the discussion on issue 5, agency planning and coordination. These three topics are briefly summarised below, along with a small section on information on the cluster of issues 3, 4, 6, 7, 8 and 9 to the extent that comment was recorded from the discussion on these issues.

## Education of people with special needs (Issue 1, Table 6)

Education was typically thought about as a process more to do with preparedness and planning, and hence something which might be accessed well prior to an event. However, it was also noted that there is an educative component in some of the messages to the community during an event, such as through the radio or in community meetings and that those with special needs were also sometimes cut off from these sorts of messages.

While there was overall consensus that the lack of fire preparedness in several of the households in the research study reflected the patterns in the general community, there were special concerns for those with special needs which warranted a focussed effort to plan for their education. A focus on education of this group gave rise to a rich discussion on several possible points of intervention and concern. Discussion took place on:

- when an education focus might be at a community wide level, with an assumption of information 'trickling' down to particular households, and when it might be more appropriate to target particular community groups.
- how current educative materials need adjustment, in both presentation and delivery in relation to some with special needs
- ways of (non emergency, 'mainstream') agencies building in a bushfire awareness component into their routine assessments of their clients
- the ways in which particular need, be it social, psychological, physical, emotional, impacts on the person's ability to take up an educative message
- how to use the social and agency based network of those who are connected in some ways to households with members with special needs as points of access for educative materials and support into the household
- the feasibility in some households of relying on other members of the household to be message carriers for the member with special needs
- what materials and processes are available for other household members to carry the education message into the household.

The isolation some households were seen to be living in was a compounding factor in thinking about getting education messages to these households, as was the fact that some people will appear to use denial of their limitations which further acts as a barrier to educative messages. It may be that there are also gender issues, where some men may see 'leaving' as an act of defeat.

Participants noted that in a few cases in the research it appeared that some residents would have been persuaded to act if the message came from someone in a formally recognised role such as a member of a brigade. Another educative message which some participants thought should be conveyed to the public is that there are limitations to what can be expected from the 'authorities' in terms of clarity of a message about the actual fire particularly during the early phase of a fire event.

Participants noted that the education message that one cannot expect to see a fire truck during an event seemed to have been understood in the households in the study, but also noted the unmet expectations in some households for assistance after the event. Participants also noted that there were inherent difficulties in delivering a 'standard' educative message on matters such as expectations of formal services, when each fire event will pose different issues as far as assistance to the community is concerned. In particular, it was felt that there was a need to educate the community that it cannot expect to receive 'high quality' information during a bushfire, as this information is often not available to those in charge. One CFA community educator noted she emphasises the idea of two fire plans, with the second plan being what to do if the plan to leave early cannot be enacted. She also ran briefly through some of the content of a 'typical' bushfire safety community education session, and invited participants to use the community education service of the CFA, noting also that the bulk of education sessions are run pre season. Participants were advised of the Community Fireguard model and also street meetings, and that every effort will be made to respond to requests for education. The "Isolated Elderly" program is currently being reviewed. It was also noted that brigades vary in their capacity to be involved in community education.

Some participants noted that agency workers need to be confident about the fire education materials and messages themselves to be effective with community members with less knowledge. Some participants noted that it can take some years to develop confidence as a community educator about bushfire safety. It was considered important to differentiate the role of 'education' from that of 'information carrier'. Home help staff who deliver emergency response information need to be

seen as information carriers. It was also noted that the client's permission must always be sought before a referral can be made to another agency.

The key education message which many participants believed needed emphasising was that community members needed to "take responsibility" for their own safety in the event of a bushfire. Participants also highlighted that many households with special needs will need assistance to develop their plans. There was also a lot of discussion on the idea of 'shared responsibility' and more broadly, what it means in practice..

Time did not allow for any more detailed discussion about what these ideas mean for 'education' of the community, nor for an exploration of the ways in which those who have engaged in some educative activity and made a plan, find that they cannot keep to that plan in the moment.

## Vulnerability of those with special needs (Issue 2, Table 6)

Participants highlighted the multiple ways in which those with physical, mental or emotional conditions experience barriers to receiving and understanding messages about activities which can increase bushfire safety preparation. These barriers were seen to exist through the spectrum of pre fire season preparedness, through to those experienced in the event of a fire and its aftermath. The ways in which particular conditions made people 'differently vulnerable' were explored, as was the ways in which the geographic isolation further heightened that vulnerability. Some participants questioned whether there was some interaction between having a disability and choosing to live in a more isolated setting. The changes in demographics were also noted, with an increase in aging community members with associated deficits such as decreased mobility, hearing loss and vision impairment.

Particular discussion here highlighted how important it was to be able to rapidly identify individuals at risk during a bushfire. The role of 'local knowledge' in this process was critical, at both an agency level, (who holds what information) and at the informal community level. Some participants noted that some of the households interviewed during the research showed particular interest in responding to others with special needs during the fires.

Participants also noted that there are particular sensitivities to be mindful of when considering intervening with those with special needs. There are also members of the community who appear to specifically choose to live in isolation and may not be known to more mainstream services.

## Agency planning and coordination

One barrier to agency planning and coordination was the lack of community awareness about the roles and responsibilities of emergency services. In addition, the details of roles and responsibilities are still being sharpened with each fire event, and affected by the particular circumstances of each fire event. In addition organizations such as Department of Human Services, whose profile has historically been more associated with recovery, is now more involved in community preparedness activities. Some community based agencies such as the Grampians Community Health Centre has pre-existing infrastructure resources also which can assist strategies which might be taken up to develop this topic of special needs, such as transport, and meeting rooms. Agencies also have infrastructure with resources like Newsletters which can be used to carry fire safety messages, and many agencies already have relationships with some of the households of concern in this research. Services such as Home Help maintenance service has a wider goal of helping maintain people in their own homes, a goal which has relevance to the question of fire preparedness, such as reducing specific foliage abutting homes. We also are aware that some organizations and community groups have already attended to some aspects of bushfire safety in their organizational planning and manuals. We understand for example that there is an 'evacuation policy' which is part of the manual used by Family Day Carer's. There will be many other such examples, and these can provide a basis on which agencies can develop further initiatives in relation to planning and coordination.

Some noted the value of the proximity of where the Incident Management Team was set up to the other agencies who were involved in recovery. This was seen to increase communication about critical issues in community safety.

It was also felt that there was sometimes a lack of shared understanding between community agencies with each other, and between emergency services and community agencies about each others' roles. While it was thought to be inappropriate for the community to try and get information from brigades at a time in a fire event when they are occupied with getting ready for an operational role, some participants wondered if the CFA would have resources to provide someone in a 'contact officer' role to respond to community calls.

The roles of local government in planning and recovery were discussed. There are sometimes gaps in the representation on the various local government committees which exist in planning and recovery. For example, the CFA is represented on prevention planning committees at local government level but not typically on emergency response and recovery committees. There was some discussion about the organizational reality that for local government, often the emergency management roles are an 'add on' to everyone's job and the funding for particular roles ceases after a limited period of time, such as the community development role which is funded as part of a recovery response, typically for a six month period.

There was discussion about the absence of good systems for people to register their movements during an event, a breakdown in the systems which do exist, and in some cases a lack of knowledge by community members about what does exist. Participants noted that there was a lot of time wasted by Emergency Services during the fires looking for people who were reported missing, but who had left the district.

How agencies can access the 'voice' of those with special needs was discussed. One possibility is through the formation of groups such as the Disability Advisory Committee in the Northern Grampians Shire, which at the time of the workshop was nearing completion of training for members. Awareness can also be raised in everyday work with clients, such as when caseloads are reviewed. The possibility of widening the current Emergency Planning Committee at local government level to increase the number of community perspectives in emergency planning is discussed below in Workshop Actions below.

## Solutions and Strategies in relation to Key Issues

The workshop identified a range of possible ways to address issues affecting those with special needs. These are discussed below and include some comment on the suggested solutions and strategies by the researchers.

### Identifying those at most at risk

A critical issue underpinning the development or implementation of programs and initiatives is to identify those who are vulnerable and to identify ways to access those people and their households. A number of agencies have existing processes or the capacity to develop systems or registers identifying vulnerable people in the community, such as through those who deliver services to vulnerable residents, such as HACC workers. The purpose of these registers is to identify those most at risk and hence to make them more accessible in terms of providing information and other services to support them during an emergency.

Local Government was often seen as the most appropriate organisation to coordinate the identification of people with special needs through the various programs and services they provide. In some places the police have compiled registers of people with special needs. Local brigades were also suggested as a means through which to identify the most vulnerable. Researchers were advised of one brigade in the region who had done this. It was also suggested that local communities or neighbourhoods could identify people within their immediate area and consider how to address their particular needs.

Identifying those most at risk is seen as a way of reducing vulnerability by being able to better target information and services to those who need them most. Even so some people exist outside formal networks of services and would be hard to identify. Hence local knowledge is considered to be vital in identifying those most at risk. Others however choose to be isolated from those in the surrounding area and may resent and resist attempts to 'identify' them.

Many issues were identified with these sorts of systems - the larger the population and geographic area the more significant the challenge to establish a register. Compiling and maintaining an up to date register also creates a significant workload. Related to this is how people get on such lists - do they volunteer themselves or do agencies identify them from their contact though involvement in other programs and services? This raises the issue of what criteria are used in registering people on such lists and who decides what level of need justifies inclusion on the register. There are also privacy issues related to the collection of sensitive information so processes need to be put in place to protect the information and to ensure that it is

only provided to appropriate others for the designated purposes. Security of the information also needs to be considered.

Another important issue with people registering on lists is that there may be expectations of what will be provided to those registering on the list. Registers and related systems are likely to vary significantly from location to location and depending on the organisation that developed the system. This variation is likely to create different understanding of the nature of such registers and may create confusion if people change residence. What service is being promised, do agencies or the community have the capacity to carry it out, and is the commitment sustainable as a service? Where systems such as registers exist or are planned, those compiling these may require assistance in thinking through some of the critical management and governance issues involved, and managing these complexities.

As already noted, these initiatives also need to be considered alongside questions of what appropriate roles and responsibilities are held by those with special needs and their families and carers. This would include questions about how much preparation and planning families can engage in themselves. In this approach organisations would play more of a support role rather than taking on a primary responsibility for families planning and preparedness. Of course in many situations people may not have the capacity or resources to accept this responsibility

The capacity of local communities to take action to support those with special needs was also raised. Often those most at risk are known to neighbours and often neighbours cooperate to support each other, finding ways to meet the needs of those most at risk. This could involve making arrangements for someone unable to look after themselves to move to a neighbour's house if a fire occurs, or for neighbours to arrange transport out of the area, or to set up local communication systems to make sure people are informed about what is happening. Issues of community leadership, trust, the willingness of members of local communities to become involved, and how local communities can link with various agencies in partnerships are all important issues relevant to building community capacity to support those with special needs. Such informal approaches can be a very effective way of providing appropriate support. However not all communities have the capacity to undertake this role, even if those with special needs seek such support.

## Organisational partnerships

There were many examples of how agencies have created both formal and informal partnerships to better provide support to those most at risk. Most common was for various agencies to include information and publicity materials about bushfires in their own publications, newsletters, etc. Some agencies have arrangements for the carer organisation to distribute bushfire safety publications and other materials to their clients. In some cases agency staff have been educated to enable them to pass on information when visiting their clients. However the limitations of this approach were also raised in that carers are unlikely to be able to pass on any more than basic information and some expressed concern about the potential for the transfer of inaccurate information, and concerns of carers who may feel that it is a too great a responsibility for them to take on. Nevertheless there was clear agreement that the benefits of agencies working together to disseminate information was seen as practical and achievable.

Whilst partnerships offer opportunities to use resources more effectively and for organisations to complement each others' work, one of the most significant issues

raised in relation to partnerships was the difficulty of coordinating what is happening in relation to inter-organisational activities. Many arrangements appear to be informal and often depend on personal relationships between staff. They may also only operate across part of an area or to a limited extent because of this dependency on informal, personal contact rather than being a formal part of the way the organisations operate. Staff who take on extra responsibilities over and above what might be seen as their 'ordinary' job description may need this recognised and supported at the agency level.

## Types of interaction

There were many references to dissemination of information either in printed publications, websites or the media, to those most at risk or their carers. Clearly this is an important objective - people need to have access to information if they are to make informed decisions about how to prepare and plan for a bushfire event. However the efficacy of distributing information to those with special needs is the same as for other community members. People need to be receptive to the information and see its relevance to their situation. There is a danger in the assumption that simply disseminating information is all that is needed. However the information whether it be in specific fire agency publications, on websites, or provided through other agencies' publications, or in the media, the information needs to be seen as only one element in the process of achieving change.

More interactive approaches were also suggested and as with the wider community these are more likely to be effective in achieving change because they potentially are better able to address specific issues, can be tailored to individual or group needs and are better able to engage people in the process of learning. In the case of people with special needs more interactive approaches are even more important. Because of their disability, isolation and other factors, those most at risk require more support to address for example the task of preparing a plan of how to respond during an emergency. In many cases it is not realistic to expect this to happen without assistance and the benefit of interaction to clarify issues that arise.

A proposal supported by the workshop participants was to develop and conduct a one day planning forum where those with special needs could attend along with carers and support staff from different agencies to work through the process of developing a household plan with fire agency staff. A range of agencies will also support the day by promoting the workshops to their clients in the area. This proposal links an effective approach to learning with a partnership approach to develop an innovative local initiative.

Workshop participants also identified a range of existing face to face programs some of which are targetted at those with special needs, but also others intended for the wider community, such as local meetings. Whilst these may provide background information about bushfires and preparedness measures they are less able to address specific issues of those with special needs. Community Fireguard is a more intensive and interactive program that does have the potential to help people develop more individualised and also collective strategies for dealing with bushfire.

A program initiative in the South West CFA area, known as the Remote Area Program, was described to participants. It entailed a door knock of about 80 homes in the area about fire safety. It was reported that the public responded favourably. Three issues were noted as accounting for the success of the program: that they had

the right (local and recognized) person for the job, the CFA logo was important in establishing credibility, and the scale of the initiative was manageable.

Other existing programs included some targetted specifically at those who are more vulnerable such as the CFA/MFB Isolated Elderly program, although this is more relevant to home fire safety rather than bushfire safety issues, and programs such as Fire Ready Victoria that is specifically about preparedness for bushfires but has limited scope for dealing with specific issues of householders whether these are due to special needs or other factors.

## Publications and the Web

A number of agencies produce publications that deal with aspects of bushfire safety. CFA in particular has a comprehensive workbook publication *Living in the Bush* that provides detailed background information and provides guidance on development of a household plan. An interactive CD is also available that allows people to work through the process of producing a plan. DSE also produces a number of publications intended to increase awareness of fire and fire prevention, particularly in parks and recreational settings. Municipalities and other organisations also produce publications on aspects of bushfire safety. However none of these are targetted at those with special needs although some such as *Living in the Bush* do attempt to guide people through thinking about their own situation and capacity in developing a plan and this may be of assistance to those with special needs. However these publications generally do not deal with issues specific to those with disabilities or special needs and there is little in the way of advice or suggestions on how to address issues from the perspective of those with special needs. It was suggested that Websites and other forms of electronic communication need to be explored further to assess their suitability as a means of addressing issues relevant to those with special needs.

DHS have produced Emergency Medical Information Booklet and the Yarra Ranges Shire has produced a booklet for HACC workers to hand out to clients to assist them and those who might be involved with them such as Emergency Services, in the event of an emergency. The booklet encourages people to identify who can assist them in an emergency and provides several useful hints. It is designed to attach to the fridge alongside their emergency medical booklet which contains information about medication to be collected should they have to leave in an emergency.

As minimum current community information sources both printed and electronic need to be extended to more specifically deal with the issues relevant to those with special needs whether this is advice on how to deal with particular issues or referral to other sources of information and advice that deal in more detail with ways to address special needs. Similarly new information materials could be developed for carers and others involved with those with special needs to enable them to be of greater assistance in relation to bushfire safety issues.

## Strategy and planning

DHS is facilitating the establishment of Local Government Emergency Recovery Committees across a number of high fire risk shires. There is now a commitment in every shire to establish such a committee and most are now ready for their initial

meeting. (Rural City of Ararat is more progressed due to the bushfires.) For these committees to work effectively, identifying vulnerable groups is a priority as is establishing effective communication between the sectors. While greater integration is being achieved between the response and recovery aspects of emergency management, there is also an undesirable potential for planning and preparation discussed at local government level to be one step removed from response and recovery.

Municipal Emergency Management Committees are a requirement which form part of Local Government Municipal Emergency Management Plans. These plans deal with both the response and the recovery phases. In each local government area two committees oversee the development and review of the Emergency Management Plan: the Emergency Management Committee and the Emergency Recovery Committee. It was suggested by workshop participants that Ararat Rural City's Emergency Management and Emergency Recovery Committee structures could be widened so as to address issues of planning for people with special needs. This approach was seen as beneficial because it avoided the need to convene another committee and that there was scope to broaden existing Municipal Emergency Management Planning committees such that they address the bushfire safety of people with special needs. Local government was also seen as being able to provide leadership in this area given their experience of dealing with the issues following the fire and that lessons learned could be applied to other municipalities. The two local government areas involved in this project are considered 'more advanced' in emergency management terms by DHS staff employed in short term emergency management project roles during the period of this research, than some other local government areas in Victoria.

In addition to addressing these issues locally, a regional approach was also discussed – utilising the DHS regional relief and recovery meeting structure which convenes twice yearly across DHS regions. DHS representatives at the workshop suggested that they continue discussions within DHS on the potential for these meetings to address the bushfire safety of people with special needs. Another regional forum described was the structure used by the Red Cross, which mirrors the regions used by Victoria Police. However in the first instance the workshop participants were more in favour of developing further knowledge and experience with these issues within the two (Local Government) forums noted above.

## Support services

Workshop participants queried whether some research interviewees were linked effectively with service networks and in general whether those with special needs were aware of the support services or systems. There was concern about the effectiveness of systems for registering people who leave during an emergency and where they go. In addition it was suggested that people were not using the registration systems that do exist. There is a need to raise awareness about these systems. There is also a need for a standardized way residents who are leaving a district can inform someone. A significant amount of time was spent by agency personnel in the Grampians fires looking for people reported missing, but who had already left the district.

## Warnings and information during emergencies

Providing information and warnings to people during bushfire emergencies has gained an increasing priority in recent years. CFA and DSE have developed new structures and processes within incident management teams to extend the flow of information to the community during an emergency. These changes have been multi-facetted and include:

- increasing the focus and importance in incident management on providing as much information as possible to the community during an emergency
- expanding the range of communication channels used during emergencies, such as the Victorian Bushfire Information Line (VBIL) and the use of community meetings to inform people threatened by a fire;
- a much greater role for ABC radio as the official emergency services broadcaster during emergencies

Whilst the increased focus on information to the community will often be of benefit to those with special needs there are also particular needs that are not addressed within this expanded focus on information and warnings. Some services such as the Victorian Bushfire Information Line (VBIL) have established processes to cater for particular groups such as the hearing impaired. However there remains scope for further initiatives to address specific special needs.

Some of the initiatives identified in the workshop dealt specifically with issues of alerting those with special needs of the existence of an emergency. The Community Information Warning System which was trialled at Hall's Gap and elsewhere was supported and suggested that this could be extended to include a text messaging facility that could assist those with special needs. Red Cross already provide a service called Telecross which involves ringing vulnerable people on a daily basis which could be explored as a possible resource to assist those with special needs during an emergency.

There is a need to educate people about the limitations in terms of the timeliness and detail of the information available about the fire situation. For example, the public may not get an official warning, the information provided may be partial, and they need to know how to access various sources of information. People also need to recognise the potential of informal sources of information through neighbours and friends, or their own observations while also recognising the possible limitations entailed. Given that some more vulnerable residents may plan to leave the area if there is a fire, timely and accurate information is vital. Those responsible for providing information to the community need to ensure that new processes and systems consider the needs of the more vulnerable and supplement these systems with additional features that can meet these special needs. There is also a need to develop ways to inform those with special needs about the systems already in place, other systems that could be of use to them and the importance of linking in with informal systems that may operate such as local telephone trees.

# Key Decisions made at the workshop

Workshop participants made two key decisions. One was to hold a forum, or series of forums, for individuals and their carers around fire planning; the other was to decide on a structure for ongoing discussion.

## Forum for educative support and facilitation around fire planning.

Workshop participants took up an invitation by Grampians Disability Advocacy Association that agencies hold a one day Forum for people with special needs and their families to receive facilitated hands on assistance to develop fire plans. This offer was met with enthusiasm by those present, with the Regional Community Educator from CFA offering to participate, and Rural Access offering to convene the working group. This work has now been carried out, and further details of this are available from Rural Access.

## A 'structure' for ongoing discussion of these issues

Further to discussion about the role of Municipal Emergency Management Committee and the Municipal Emergency Recovery Committee being required to form part of Local Government Municipal Emergency Management Plans, a decision was taken that Ararat Rural City's Emergency Management and Emergency Recovery Committee structures could be widened so as to address issues of planning for people with special needs. The Manager of Community Development at the Ararat Rural City agreed to take the issues discussed at the workshop into these two committees.

However, some workshop members raised the possibility that these committees might struggle to encompass the full range of issues and organizations (especially those not involved in emergency management) required to address the bushfire safety of people with special needs. The suggestion was made that perhaps there could be a sub-committee with this focus that feeds information to the Municipal Emergency Management committees. The Rural Access Coordinator who is already a member of the Emergency Management Committee is in a position to continue to monitor the pathways through which concerns of people with special needs are brought to the Committee.

# Appendix 4: Documents/Resources collated during the project period, but not cited in the Report

## Selected reports and research on needs of people with disabilities in disasters: international review

The following text comprises a review of the literature prepared by Barbara Duncan in April 2005. Some documents will now be dated, but readers may find some useful material in Barbara's work below, reported directly from her web based review.

Following is a summary of recent resources regarding the inclusion of people with disabilities in planning for and responding to emergencies and disasters, both natural and manmade.

The list below is more selective than comprehensive. Most guidelines and research initiatives were developed in response to recent disasters, such as earthquakes in Japan and California, floods in Europe, the World Trade Center attack in New York, and the 2004 tsunami in Southeast Asia. New efforts are now being made in response to 2005 events such as the earthquake in Kashmir and Hurricane Katrina in the U.S. (See separate story on the November 10 U.S. Congressional briefing on Emergency Management and People with Disabilities.)

The list highlights published resources that include guidelines, groups active in disability and disaster research, and those conducting training.

**Kashmir Earthquake 2005 – reports from India and Pakistan**.

In India, reports on the website of the Disability News and Information Service, www.dnis.org include the results of a fact-finding mission to the affected area by the National Disability Network and the National Center for the Promotion of Employment of Disabled Persons and a review of India's newly proposed Disaster Management Bill from the point of view of disabled persons.

In Pakistan, reports from the Independent Living Center in Lahore were set to its sponsor, the Japanese Society for Rehabilitation of People with Disabilities and provided to the U.S. based Justice for All network:
www.jfanow.org/jfanow/index.php.mode=A&id=2620;&sort=D

**Tsunami 2004 – active international initiatives**
A few international groups are tracking and coordinating disability related response: the World Bank Global Partnership in Disability & Development (www.worldbank.org/disability), the Asia and Pacific Center on Disability (www.apcdproject.org), and, most recently, a joint effort of the U.S. based Center for International Rehabilitation, the UN Special Rapporteur on Disability and Disabled People's International (www.cirnetwork.org).

Some charities and other NGOs have information about the impact of the tsunami on disabled persons and new initiatives created in response, e.g., Action for Disability and Development (UK), Christian Blind Mission (Germany, UK), Handicap International (France, Belgium), Action Aid (India) and Leonard Cheshire International (UK). For example, Cheshire states around 250,000 disabled persons have lost their homes, livelihoods and in some cases their lives from the tsunami, but does not source the estimate. (www.disabilitynow.org.uk/news_feb_006.html)

**Tsunami - Guidelines**

"Looking with a Disability Lens at the Disaster Caused by the Tsunami in South East Asia," a 7 page report by Barbara Oosters for CBM International (www.developmentgateway.com.au/jahia/Jahia/lang/en/pid2254). She covers 7 aspects: emergency; post-crisis; guidelines for including disabled persons in emergency plans; water, sanitation, hygiene; food, nutrition; shelter, settlements; health services.

**Tsunami – Research Reports**

"Disability in Conflict and Emergency Situations: Focus on Tsunami-affected Areas" is a new in-depth research report by Maria Kett, Sue Stubbs and Rebecca Yeo on behalf of the International Disability and Development Consortium, published in June 2005 by the UK KAR Disability Program: www.disabilityKar.net/docs/iddc.doc.

The aim of the participatory action research was to promote inclusion of disability in emergency, conflict and refugee programs. The objectives were to assess: a) the extent of inclusion, b) the impact of networking and c) the role of resources in post-tsunami contexts. The focus was on Sri Lanka with a 10 day site visit by the core team, supported by contributions from India and Indonesia. In brief, findings are that inclusion overall was quite limited, with scant evidence that funding reached poor disabled people's organizations, concluding with numerous practical suggestions on how to improve future scenarios.

"The Indian Ocean Tsunami Disaster 2004: a Situational Assessment to Inform Response and Future Planning of the World Federation of Occupational Therapists" is a 56 page report of an analysis conducted in March 2005. Findings substantiated a need for a regional workshop for planning for the readiness of occupational therapists to participate effectively in future disasters. Details: www.wfot.org

**Disasters - Guidelines**

The WHO has prepared an interesting short set of guidelines, consisting of phase by phase suggestions for assisting people with disabilities in disaster relief, beginning with acute phase, then reconstruction, followed by CBR: www.who.int/violence_injury_prevention/other_disaster_disability2.pdf

The U.S. Federal Emergency Management Agency (FEMA) updated its brief guidelines in 2004, "Assisting People with Disabilities in a Disaster": www.fema.gov/rrr/assistf.shtm
The simple preface states, "People with disabilities who are self-sufficient under normal circumstances may have to rely on the help of others in a disaster."

"Disaster Mitigation for Persons with Disabilities: 7 key principles" is a concise 3 page summary of the Annenberg Washington report prepared in 1995 by Prof. Peter

Blanck, focusing on accessible disaster facilities, accessible communications, reliable rescue communications, partnerships with disability community, education & training, the media and universal design:
www.accessiblesociety.org/topics/independentliving/disasterprep.htm

One of the few papers written on disasters and disabled persons from the developing country viewpoint is an essay by Ali Baquer of India:
www.pujabilok.com/india_disaster_rep/issue_significance/disability_issues.htm

"Lessons Learned from the World Trade Center Disaster" is a fact-filled 34 page report prepared by the Center for Independence of the Disabled of NY (CIDNY), alternating between small case studies and recommendations by the disability group that was based closest to Ground Zero in 2001: www.rtcil.org/lesson

A series of short Factsheets and recommendations for each disability group to attain disaster preparedness has been issued by June Issacson Kailes, a long established consultant in this area, specialized in earthquake preparedness: www.jik.com/disaster
Kailes also has hotlinks to dozens of other publications on disability and disasters.

**Disasters – Research**
Following groups are in the midst of or have just published research studies:

**Floods/research**
An interim report on "The Needs of Disabled People in Flood Warning and Response" has just been published by the Northumbria Disaster Studies project, UK: http://online.northumbria.ac.uk/geography_research/dsp/pilot-study-report.doc.
It consists of a literature review, research objectives, summary of investigation of warning systems and recommendations. Background materials are also available at: http://northumbria.ac.uk/geography_research/radix/disability.html

**Disaster Preparedness/research**

"Saving Lives: Including People with Disabilities in Emergency Planning" is a 100 page report issued by the U.S. National Council on Disability in April 2005 and is the result of the agency's 2003 commitment to evaluate the work of the federal government in the areas of homeland security, emergency preparation and disaster relief with respect to disabled persons. Report reviews infrastructure including access to technology, physical plants, programs and communication, as well as procurement and emergency programs and services. Available in alternative formats and online: www.ncd.org

"Disaster Preparedness for People with Mobility Impairments" and "Nobody is Left Behind" are the titles of preliminary reports from research conducted 2002-2005 by the Rehabilitation Research and Training Center on Independent Living based at the University of Kansas: www.rtcil.org/NLB_home.htm. Discusses results of survey of 30 randomly selected U.S. counties, cities and boroughs that have recently experienced natural or manmade disasters, in order to determine if their disaster plans and emergency response systems met the needs of people with disabilities, and if any best practice models could be identified. Contains information on tornados. Project directors Glenn White, PhD and Michael Fox comment that a common theme is that "there is virtually no empirical data on safe and efficient evacuation of people with disabilities in disaster planning."

In November 2004, the first results were released from the research being conducted by the U.S. National Organization on Disability on emergency preparedness: www.nod.org

- Details from Tim Sullivan: sullivant@nod.org or NOD's Emergency
- Preparedness Initiative, Hilary Styron: epi@nod.org
- Nationwide survey of emergency managers results include: 69% do not incorporate needs of people with disabilities into plans; 22% say plans are underway.

NOD is producing Guides on including people with disabilities in emergency planning aimed at emergency manager, planners and responders. Topics of information: schools and pediatric populations, special needs registries, specialized equipment, training, funding, public awareness. Scope includes floods, fires, blackouts and manmade disasters.

**Training**
Some U.S. groups have developed training packages on how to incorporate needs of disabled persons into emergency planning:

A new National Center on Emergency Preparedness for People with Disabilities has been established as part of the Washington based Inclusion Research Institute: www.disabilitypreparedness.com. Products include training kits for organizations, seminars, workshop and simulations. Other training modules have been developed by June Kailes for various groups: www.jlk.com

## Bibliographies

In addition to resources listed above, the following bibliography is of particular interest.

The U.S. based Disability Funders Network has developed a comprehensive annotated bibliography for funders about how to incorporate the needs of disabled persons into projects offering assistance in the case of disasters. Bibliography is entitled "Disability Considerations in Emergency Preparedness": www.disabilityfunders.org/ep-biblio.html

## Other literature and resources

ACTCOSS (ACT Council of Social Service Inc.). (2003). Lessons learnt from the ACT fires an issues paper. September.

American Red Cross. Disaster Preparedness for people with disabilities. Disaster Services

AFAC. Submission by Australasian Fire Authorities Council and Combined Australian Fire Services for the inclusion of fire safety into the Community Services Training Packages, October 2006. Submission prepared by Metropolitan Fire and Emergency Services Board.

Betts, R. (2003). The missing links in community warning systems: Findings from two Victorian community warning system projects. *The Australian Journal of Emergency Management, 18*(3), 37-45.

Boura, J. (1998b). Community Fireguard: creating partnerships with the community to minimise the impact of bushfire. *The Australian Journal of Emergency Management, Spring*, 59-64.

CFA, MFB, DSE: Fire Ready Victoria Strategy 2004 -2007

CFA: Living in the Bush - bushfire survival workbook; Isolated Elderly program – a fire safety awareness program; Community Fireguard – a fire safety program.

Communities and Local Government, London. Fire Safety Toolbox. http://www.communities.gov.uk/fire/firesafety/prevention/firesafetytoolbox/

Crandall, J William. (2006). The Smith-Kettlewell Eye Research Institute. http://www.ski.org/rehab/WCrandall/EgressIIIWeb/egressintro.html . Emergency information for people with visual impairments; Evaluation of Five Accessible Formats.

Department of Human Services. Disability Action Plan, 2005-2008.

Department of Justice, Victoria. (2006). Community Information and Warning System. The report of the trial and evaluation.

Department of Sustainability and Environment. Disability Action Plan. 2006-2009.

Draft DHS Communication Strategy. Project: DHS Bushfire Preparedness and Recovery - Support Services and Plan. (Version 1, 1 December 2006).

Emergency NSW: http://www.emergency.nsw.gov.au/content.php/235.html. What to do in an emergency: Information for Older People and People With a Disability.

Firestorm: Treatment of Vulnerable Populations During the San Diego Fires. Prepared by: San Diego Immigrants Rights Consortium; Justice Overcoming Boundaries of San Diego County; ACLU of San Diego & Imperial Counties

Independant Living Resource Centre, San Francisco. (2001). Emergency Preparedness for People with Disabilities.

Kailes, June Isaacson. (2002). Disability Policy Consultant, Centre for Disability Issues and the Health Professions. Emergency Evacuation Preparedness: a Guide For People With Disabilities and Other Activity Limitations.

LGA Guidelines for Distribution – Emergency Medical Information Book. My Emergency Plan Flip Chart.

National Forums on Emergency Warnings to the Community. 29-30 March 2007. Adelaide South Australia. (various PowerPoint presentations).

Porter, Mary. (2004). Volunteering ACT. Volunteering ACT – Operational plan for the management of spontaneous volunteers under the ACT community recovery sub – plan. March.

Preparing for Disasters: Information for People with Special Needs. Queensland Government. Counter Disaster and Rescue Services.

Queensland Government. (1999). Counter Disaster & Rescue Services, Dept Emergency Services. Preparing for Disasters: Information for people with special needs. October

Rural Communities and Emergency Preparedness. (2002). Prepared by the Office of Rural Health Policy. Health Resources and Services Administration. US Department of Health and Human Services. (www.ask.hrsa.gov). April

Taylor, Jeni. (2006). After the Fire. A study of CFA brigades directly impacted by major fires in the CFA Midlands Wimmera Region. Research undertaken for Master of Business Management, University of Ballarat, Australia.

Taylor, R., and Harris, J. Submission by the Combined Fire Services to the Review of Subsidies and Services in Australian Government Funded Community Aged Care Programs. Submission written and prepared by the Metropolitan Fire and Emergency Services Board, Melbourne.

Tempe Fire Department (2006) www.tempe.gov/fire/Public%20Education/fire%20Safety%20For%20Disabled.htm. Fire Safety.

TriData Corporation for US Fire Administration: (1999)
Fire Risks for the Deaf or Hard of Hearing.
Fire Risks for the Mobility Impaired
Fire risks for the Blind or Visually impaired. December

Victorian Department of Human Services. (2006) Fire Safety in the Home for Families and Carers of People with Disabilities. September