

### 3. COMMUNITY RESPONSE TO THE BUSHFIRE HAZARD

#### 3.1 THE VULNERABILITY OF COMMUNITIES TO MAJOR BUSHFIRES

In recent years an alternative conception of hazard has been advanced which challenges the idea that disasters are caused by extremes in the natural environment. This alternative conception is based on the notion that a physical event, such as a high intensity bushfire, does not itself constitute a hazard or a disaster. Rather, **the magnitude of a bushfire disaster is largely a function of the extent to which the actions and behaviour of people make them particularly vulnerable in the event of a fire.** Hewitt explains that while there are natural forces and some damage in most disasters that lie beyond all reasonable measures any society can make to avoid them, "what I believe to be definitive of the disasters I have examined is ... that most of them would not be disasters, and many of the damages would not (indeed *do not*) occur except as a direct result of characteristic and vulnerable human developments."<sup>89</sup>

Salter reports that this concept of disasters as manifestations of vulnerability has won favour in recent years. For example, the office of the United Nations Disaster Relief Co-ordinator has defined disaster as "a measure of the vulnerability of [a] community to a specific hazard."<sup>90</sup> Similarly, De Marchi argues that there may be no such thing as a natural disaster for vulnerability is a function of the human system, and can only be increased or diminished by human action.<sup>91</sup>

One of the implications of this definition of disaster is that not all people are equally vulnerable,<sup>92</sup> and that within any community, some people and some houses are more vulnerable than others to the bushfire threat. It becomes apparent that by understanding the factors that make some people and homes particularly vulnerable in the event of a major bushfire, communities will be able to develop strategies for substantially reducing bushfire losses. Three studies, each based on the Ash Wednesday Bushfires in Victoria, have enabled us to identify the nature of vulnerability in major bushfires.

#### *House Survival*

First, our understanding of the factors that increase the vulnerability of a house to bushfire attack, and the strategies people can implement to improve the chances of house survival, have improved dramatically as a result of the work of the CSIRO's Division of Building Research (hereafter referred to as Ramsay *et al.*). Following the Ash Wednesday Fires, Ramsay *et al.* conducted a detailed survey of 1153 houses in the area affected by the Otway Ranges fire to understand the causes and circumstances of house ignition.<sup>93</sup>

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<sup>89</sup> Hewitt, 1983, 27

<sup>90</sup> Salter, 1992, 2

<sup>91</sup> De Marchi, 1991, 238

<sup>92</sup> Salter, 1993, 3

<sup>93</sup> Ramsay *et al.*, 1986

Ramsay *et al.* found that houses were ignited by either sparks and embers, radiant heat or direct flame, with spark and embers causing the majority of ignitions. This is largely because showers of burning debris generated by burning vegetation, buildings and other ignitable material, may attack a building some time before the fire front reaches the building, during the passage of the front and for many hours after the fire front has passed. In contrast, the passage of the fire front with its attendant radiant heat and flame may only take minutes.<sup>94</sup>

Observations recorded by some of the major fire reports support the conclusion by Ramsay *et al.* that houses are ignited mostly by sparks and embers. In the Dwellingup Fire, for example, "the ignition of buildings appeared to depend largely upon where a burning brand lodged, and whether persons were present to extinguish it quickly".<sup>95</sup> In many of the small towns threatened by the Hobart Fires it was reported that houses were threatened and ignited by showers of embers falling on the towns.<sup>96</sup>

A popular misconception is that houses 'spontaneously combust' due to the extreme heat generated by a bushfire. Stretton, for example, reported that "houses of brick were seen and heard to leap into a roar of flame before the fires reached them."<sup>97</sup> However, Ramsay *et al.* were unable to substantiate any accounts of houses exploding during the Ash Wednesday Bushfires, and argued that as a house is exposed to high levels of radiant heat for only a very short time during a fast-moving bushfire, there would not be sufficient heat to cause instantaneous ignition and total involvement of a house in a fire.<sup>98</sup> This is supported by the Judicial Inquiry into the Hobart Fires, which noted that while there were reports of houses exploding during the Hobart fires before they were reached by the main part of the fire, they were "unable to find any reason why this should be so".<sup>99</sup>

The implications of this understanding of house survival is that as a house will generally survive the initial fire front **if fuel levels around the house have been reduced**, people who shelter in their homes have an excellent chance of surviving a major fire. The fact that most houses are ignited by sparks and embers also means that people who stay with their homes may be able to save their homes by extinguishing spot fires before and after the fire front has passed through. Ramsay *et al.* found that in the Otway Ranges, houses where people stayed were five times more likely to survive than houses where people evacuated or stayed away.<sup>100</sup> Ramsay *et al.* also found that "those who returned to their houses after the fire front had passed were able to improve the chances of the survival of their houses or to diminish the damage sustained".<sup>101</sup>

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<sup>94</sup> Ramsay & Dawkins, 1993, 22

<sup>95</sup> Rodger, 1961, 54

<sup>96</sup> Chambers & Brettingham-Moore, 1967

<sup>97</sup> Stretton, 1939, 5

<sup>98</sup> Ramsay *et al.*, 1986, 4

<sup>99</sup> Chambers and Brettingham-Moore, 1967, 17

<sup>100</sup> Ramsay *et al.*, 1986, 16

<sup>101</sup> Ramsay *et al.*, 1986, 10

The findings of Miller *et al.* concur with these results. They found that "general indications are that people who understand what to do and have made adequate preparations, and, most importantly, have an adequate water supply, stand a good chance of surviving and saving their homes".<sup>102</sup>

### *Fight or Flee?*

A second important study is that of Wilson and Ferguson, who assessed the relative merits of staying with a home or evacuating, based on a case study of the experience of residents of Mount Macedon during the Ash Wednesday Bushfires.<sup>103</sup> They also found houses to be an excellent shelter for able-bodied people during major bushfires, noting that of the 47 victims of the Victorian Ash Wednesday Bushfires, only 7 died inside their homes, all of whom were aged over 50.<sup>104</sup> Five of these seven were victims of the Mount Macedon Bushfire. Wilson and Ferguson described how:

"all were aged 55 or more, and one was disabled. Of the three houses concerned, two were exposed to relatively low intensity surface fires which did not even fully scorch the garden vegetation .... In our opinion, able-bodied residents would not have lost their lives."<sup>105</sup>

A much larger proportion of victims died inside their homes during the Hobart Fires, but the Judicial Inquiry reported that "most of the people who died in their homes or within a short distance thereof were either very old and infirm or suffered from some physical disability."<sup>106</sup>

Wilson and Ferguson also found that many of those people who stayed with their homes were able to save their homes. Eighty-two percent of occupied houses at Mount Macedon survived the fire, whilst only 44 percent of unoccupied houses survived (of which 14 percent were saved by neighbours and passing CFA brigades).<sup>107</sup>

In contrast, Wilson and Ferguson found that the experience of those residents who decided to evacuate, demonstrated that evacuation during a major bushfire should not be undertaken lightly, and if the decision to evacuate is made it must be carried out well in advance of the fire. Large-scale evacuation at the last minute, they suggested, has the potential for disaster.<sup>108</sup> They described how:

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<sup>102</sup> Miller *et al.*, 1984, 81

<sup>103</sup> Wilson & Ferguson, 1984

<sup>104</sup> Wilson & Ferguson, 1984, 234

<sup>105</sup> Wilson & Ferguson, 1984

<sup>106</sup> Chambers & Brettingham-Moore, 1967, 35

<sup>107</sup> Wilson & Ferguson, 1984, 232

<sup>108</sup> Wilson & Ferguson, 1984, 235

"many residents did not leave their houses until the fire was almost upon them. Because of strong winds, queues of cars formed on roads blocked by falling trees, sometimes before the fire arrived. Smoke made navigation difficult, even along the familiar routes. For those who did not get clear and who were overtaken by the fire, the purpose of leaving their houses was defeated."<sup>109</sup>

Clearly, staying with a well-prepared house is a much safer strategy than last minute evacuation. This is confirmed by the experience of some of the victims of the Hobart Fires. The Judicial Inquiry noted that in the case of about half of the people who died whilst escaping from their homes, their homes did not catch fire.<sup>110</sup>

Miller *et al.* agreed that evacuation is not really a desirable option, and that counter-disaster efforts should be "focussed on those awareness and preparedness measures which assist persons to defend their own lives, homes and properties, thereby providing themselves with a viable option to evacuation."<sup>111</sup> Milton *et al.* expressed similar sentiments, arguing that "in most instances the need to resort to evacuation does not exist."<sup>112</sup>

### *Three Groups of Civilian Bushfire Victims*

A third study investigating factors that influence vulnerability is a study by Krusel and Petris investigating the circumstances surrounding civilian deaths during the Victorian Ash Wednesday Bushfires.<sup>113</sup> This study identified three groups of victims. The first group were those people who realised they were in danger with enough time to implement an effective survival strategy, but chose an ineffective strategy because of deficiencies in their **understanding** of fire safety. The study recognised that the most appropriate survival strategy for any individual will depend on his or her particular circumstances. However, many people chose a strategy that substantially increased the risk to their safety, because they did not understand basic fire safety principles. These included evacuating at the last minute, and leaving the relative safety of a house to check stock only to be caught outside when the wind direction changed.<sup>114</sup> The Judicial Inquiry into the Hobart Fires also attributed many of the deaths of those fires to a failure to obey the basic rules of survival in bushfires.<sup>115</sup>

A second group of victims identified by Krusel and Petris were those people who did not recognise the threat to their safety in time to implement an effective survival strategy. Improving 'official' warning processes does not seem to be the solution to this situation. A feature of major conflagrations is that the communication of information will inevitably breakdown, so that many

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<sup>109</sup> Wilson & Ferguson, 1984, 235

<sup>110</sup> Chambers & Brettingham-Moore, 1967, 35

<sup>111</sup> Miller *et al.*, 1984, 137

<sup>112</sup> Milton *et al.*, 1984, 86

<sup>113</sup> Krusel & Petris, 1992

<sup>114</sup> A feature of most major conflagrations in southern Australia is the south-westerly wind change associated with the arrival of the cold front at the fire.

<sup>115</sup> Chambers & Brettingham-Moore, 1967, 35

people will not be warned. Miller *et al.* found that during the Victorian Ash Wednesday Bushfires the extreme conditions "made it fundamentally very difficult to provide adequate and timely warning to threatened communities .... [so that] there were cases where warning was initiated belatedly, or not at all."<sup>116</sup> Inadequate warning was also a feature of the Como-Jannali Fire where most of the losses during the recent New South Wales bushfires were sustained. It was reported that:

"in the Como West/Jannali area people had been watching TV reports of fires around northern suburbs completely unaware that fires were burning very close to their homes. In fact, it was reported that the one person who died in Jannali had been watching TV but only became aware that she was in danger when she saw flames at the window."<sup>117</sup>

Krusel and Petris argued that while disaster management agencies remain responsible for the communication of risk, deficiencies in the warning process can best be overcome by people taking responsibility for obtaining information about an approaching fire, rather than relying solely on being supplied with information from an official source. This may be as simple as monitoring nearby fires and antecedent weather conditions to assess whether or not they are likely to become threatened.<sup>118</sup> This, of course, depends on the extent to which people understand the processes that influence fire spread.

A third group of victims identified by Krusel and Petris were those people who were physically incapable of implementing an effective survival strategy. This third group of victims were not able to evacuate, or prepare themselves, or their homes, for the approaching fire. It included some elderly and physically handicapped people, as well as people under the influence of alcohol. The particular vulnerability of this group of people corresponds to the findings of Wilson and Ferguson and the Hobart Judicial Inquiry (discussed above). Wilson and Ferguson concluded that relative to the age distribution of the population, the number of deaths for the 50 or more group was more than seven times higher than for the 0-24 year old group.<sup>119</sup>

### 3.2 ABILITY OF COMMUNITIES TO REDUCE THEIR VULNERABILITY

It was noted earlier that while suppression forces are effective for the vast majority of fires, in major conflagrations fire intensities are an order of magnitude greater than the intensities of those fires which can be controlled by suppression forces. Similarly, while urban-bush interface residents can expect the assistance of fire suppression forces for the vast majority of fire emergencies, in a major conflagration suppression forces are so stretched that it is "a certainty that some of the population will be without help."<sup>120</sup>

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<sup>116</sup> Miller *et al.*, 1984, 78

<sup>117</sup> Senate Standing Committee on Industry, Science, Technology, Transport, Communications & Infrastructure, 1994, 94

<sup>118</sup> Krusel & Petris, 1992, 8

<sup>119</sup> Wilson & Ferguson, 1984, 234

<sup>120</sup> Silberbauer, 1990, 8; Incidentally, this experience seems to be characteristic of most disasters. Britton, 1986, 268 observes that traditional emergency service organisations are usually well-

Consequently, there would seem to be considerable scope for reducing bushfire losses, if agencies helped communities to take some responsibility for reducing their vulnerability. However, while fire management agencies are beginning to understand the factors that influence the vulnerability of individuals and communities, efforts to translate this understanding into action by communities have proved relatively fruitless.

In recent years, a number of reports have suggested that an effective way for fire management agencies to facilitate the development of community strategies for reducing vulnerability is by supporting groups of neighbours living in high threat areas, who are prepared to take responsibility for reducing the bushfire threat themselves.

For instance, in an inquiry into the North Warrandyte Fire in 1991, the Deputy-Coroner commented that the residents' submission reflected the readiness of the community to participate in fire prevention and combat planning, given the opportunity.<sup>121</sup> She noted that the key to improving fire awareness is communication and education, and that it is up to the separate authorities to use that channel of communication.<sup>122</sup> To this end, she recommended that "further efforts be made to assist residents, perhaps on a street-by-street basis to form their own protection groups."<sup>123</sup>

Miller *et al.* also found that the involvement and contribution of community support groups (in a variety of forms) during the Victorian Ash Wednesday Bushfires, tended to indicate that some more permanent arrangement for linking government and community would have benefit for the future.<sup>124</sup> To this end, the Committee recommended that community support groups should be encouraged, as part of Victoria's counter-disaster planning. Whelan has developed and piloted a model of community participation in bushfire preparedness, based on neighbour groups.<sup>125</sup> The studies of Wilson and Ferguson, and of Krusel and Petris, also suggest community or neighbourhood groups may be an effective way of dealing with aspects of the bushfire threat.

More recently, the CFA have put these recommendations into practice with the Community Fireguard program.<sup>126</sup> Through this program, trained community education facilitators assist small neighbourhood groups to take responsibility for their fire safety, and to develop strategies for reducing their vulnerability from major fires.

While fire management agencies may strive to develop community preparedness groups, this is only the apex of a much broader range of strategies that can be implemented to engender community participation in bushfire planning. This section discusses how encouraging community participation

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suited to cope with accidents and emergencies, but are not able to cope with the wider, more intense, or more prolonged social disruption characteristic of disasters.

<sup>121</sup> Wilmoth, 1992, 10

<sup>122</sup> Wilmoth, 1992, 10

<sup>123</sup> Wilmoth, 1992, 11

<sup>124</sup> Miller *et al.*, 1984, 123

<sup>125</sup> Whelan, 1987

<sup>126</sup> Country Fire Authority, 1993

may assist fire management agencies to resolve some of more complex disaster mitigation problems that have become apparent with the development of the urban-bush interface.

### *Facilitating Community Action Through Community Education*

Agencies traditionally use television advertisements and printed leaflets to encourage the adoption of effective bushfire strategies by the community. Many of the major fire reports have advocated more publicity material in an attempt to change the behaviour of communities at risk.<sup>127</sup> However, while these strategies may be effective for meeting public relations and awareness objectives, recent reports have questioned their ability to change individual behaviour. Miller *et al.* noted that public education and awareness programs often went unheeded by sections of the public, and that "the mere resort to bigger and better programs in the light of past experience is unlikely to provide the total answer. Receptivity of such programs by the public must also improve."<sup>128</sup> Silberbauer agreed, arguing that the information contained in fire safety publicity is "clear, reliable, readily applicable and *widely ignored*."<sup>129</sup> Milton *et al.* found:

"that an abundant amount of information was available but it was generally ignored by the public. Essential knowledge concerning survival in a bushfire, protecting houses and property and regulations about fire control has been widely distributed and every major fire is followed by a small flurry of new publications. Despite these efforts there is little public awareness of the fire threat and action which should be taken to reduce the fire threat. This problem is particularly significant in bushland suburbs ..."<sup>130</sup>

More recently, in a submission to a Coronial Inquest into the North Warrandyte Fire in 1991, residents stated that despite the CFA's long history of community education via literature and public lectures, many residents seemed ignorant of: how to carry out adequate fire prevention; what happens in a fire; what to do in a fire; and what to do after a fire.<sup>131</sup>

Beckingsale describes this traditional public education approach as the "Information-Action" model of behavioural change.<sup>132</sup> This model assumes that information leads to awareness and awareness leads to action, and that the links between information and action are both strong and direct. In fact, as Silberbauer argues, it "is apparent that passive approaches (i.e. those in which the public are not engaged in reciprocal action, but are passive recipients of information) require a great deal of reinforcement before any significant change in perception or behaviour occurs."<sup>133</sup> Magill agrees that "the formula of 'education causes awareness causes desired behaviour' is a myth: information sent may not be received, and if received, it is not necessarily followed."<sup>134</sup> Beckingsale explains

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<sup>127</sup> For example: Standing Committee on Forestry, 1984, 16

<sup>128</sup> Miller *et al.*, 1984, 64

<sup>129</sup> Silberbauer, 1990, 10 (my emphasis)

<sup>130</sup> Milton *et al.*, 1984, 27

<sup>131</sup> Stickels, 1992

<sup>132</sup> Beckingsale, 1994, 2

<sup>133</sup> Silberbauer, 1990, 9.

<sup>134</sup> Magill, 1992-3, 4

that one of the reasons for the shortcomings of the "Information-Action" model is that traditional publicity assumes a homogenous audience, thereby failing to account for the variation in individual's governing values.<sup>135</sup> Another flaw in this model is that as there is no scope for feedback from the recipients of information, agencies are unable to identify and respond to specific deficiencies in an individual's knowledge and mix of strategies, or correct any misunderstandings about bushfire or human behaviour in disaster.<sup>136</sup>

As the most appropriate bushfire safety strategies will vary according to each individual's particular circumstances, lifestyle, environment and governing values, a more effective method of achieving behavioural change may be one which allows two-way communication between fire management agencies and individuals. This will allow the individual to engage in dialogue with the fire management agency in order to determine how principles of fire safety science may best be applied to his/her particular circumstances. Two-way communication will also enable fire managers to "learn more about the goals of homeowners and to structure messages that address homeowner goals as well as reducing losses to fire."<sup>137</sup>

This approach to community education has been described as the participation paradigm.<sup>138</sup> An effective and efficient forum for engaging in participative two-way communication with members of the urban-bush interface is a neighbourhood group. Groups are also often a good vehicle for changing people's attitudes and behaviours because, as Beckingsale explains, groups provide a reference group, compensation for an individual's own weaknesses, a sense of belonging, and more accurate information about peoples needs.<sup>139</sup>

### *Community-Based Warning Systems*

In major disasters, many people do not receive effective warning. Through an effective community education program, individuals may develop an understanding of the nature of major bushfires, such as weather conditions conducive to major bushfires, so that they recognise the threat early without having to rely on official communication from a disaster management agency.

Krusel and Petris suggest that if people work together as a community group they may also be able to develop strategies for communicating information about a bushfire throughout the group.<sup>140</sup> These could include a member of the group purchasing a listening set, and keeping other members of the group informed of the progress of any fire; working with a community radio station to develop a warning strategy whereby members of the group know they can rely on the station to broadcast fire information when required; and arranging for a member of the group to liaise with local brigades to keep other members informed.<sup>141</sup> Some Community Fireguard groups have also developed 'telephone trees' to facilitate the transfer of information in the event of a bushfire.

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<sup>135</sup> Beckingsale, 1994, 3

<sup>136</sup> Whelan, 1987, 10

<sup>137</sup> Magill, 1992-3, 6

<sup>138</sup> Beckingsale, 1994, 3

<sup>139</sup> Beckingsale, 1994, 6

<sup>140</sup> Krusel & Petris, 1992, 8

<sup>141</sup> Krusel & Petris, 1992, 9



A participative program that engages fire management agencies in dialogue with community groups may also facilitate the development of warning systems that both the issuer and the receiver understand. De Marchi argues that the effectiveness of warnings depends upon the existence of a communicative relationship between the public and those in charge of managing the hazard.<sup>142</sup> This will better equip people for receiving warnings, and for actively seeking and taking life preserving actions. De Marchi observes that:

"People do not simply follow instructions: they make decisions. Good warning information should facilitate access to previously acquired knowledge, thus improving people's capacity for making decisions."<sup>143</sup>

In an examination of the effectiveness of community participation in warning development, Salter compared the risk communication strategies developed for residents neighbouring industrial sites in Altona and Port Adelaide. He found that the Port Adelaide model was far more successful because the warning systems were developed with the community. Consequently, the warning system had become a part of community culture, and the planning process used to develop the warning system enjoyed "substantial credibility and integrity in the eyes of the community at risk."<sup>144</sup>

### *Protecting Vulnerable Members of a Community*

It was argued above that some (although by no means all) elderly people are particularly vulnerable in the event of a major bushfire. This is reflected in the fact that elderly people figure prominently among the victims of major bushfires.<sup>145</sup>

Krusel and Petris argued that many of the people who may need assistance in a major fire are best identified by members of their community, and if their needs were incorporated into the survival strategies developed by their neighbours, they would have a far greater chance of survival.<sup>146</sup> Wilson and Ferguson also suggested that a neighbourhood groups system, where neighbours organise in advance to move vulnerable people to safer locations, would help overcome this problem.<sup>147</sup>

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<sup>142</sup> De Marchi, 1991, 239

<sup>143</sup> De Marchi, 1991, 239

<sup>144</sup> Salter, 1991, 14

<sup>145</sup> Wilson & Ferguson, 1984, 234

<sup>146</sup> Krusel & Petris, 1992, 9

<sup>147</sup> Wilson & Ferguson, 1984, 235

## *Reconciling Fire Prevention and Conservation*

In a description of a number of collaborative projects between fire brigades and conservationists, Boura demonstrates that the key to reconciling fire protection and conservation issues is communication. Boura notes that while fire brigades and other statutory authorities, and conservationists have different land management objectives and priorities, if each side is willing to communicate and respect the validity of the others' views, mutually acceptable management plans can be formulated.<sup>148</sup> Thus, the development of processes where fire management agencies are able to engage in two-way communication with communities who value the natural environment, should enable communities to develop strategies that meet both their conservation and fire protection responsibilities.

### **3.3 ROLE OF AGENCIES IN FACILITATING COMMUNITY PARTICIPATION**

Participative approaches have been employed extremely successfully in recent years in catchment and land management, particularly through the Landcare program. In a paper examining the evolution of catchment management philosophies, Martin describes how environmental problems are now understood to arise as a result of interactions between people and their environments. As a result government is now encouraging rural communities to take responsibility for environmental care of catchments.<sup>149</sup> However, Martin argues that this model can be successful only if government supports community participation and action with resources, technical information, support, and effective coordination.<sup>150</sup> This requires land management agencies to move "beyond the role of being planners, experts and decision makers to a facilitative and educative role supporting community participation."<sup>151</sup> In a book describing the Landcare program, Campbell also argues that "participatory methods in the field may be abandoned or never even tried without institutional support and/or a learning environment."<sup>152</sup>

Similarly, participative methods for reducing community vulnerability to major bushfires will fail without the support of fire management agencies. There are at least two steps to developing the institutional framework for supporting participation.

First, fire management agencies should create opportunities for community groups to take responsibility for their own fire safety. Fire management agencies continually call for communities to help fire management agencies shoulder the burden of bushfire safety.<sup>153</sup> However, in practice, most fire management agencies advocate solutions that in effect absolve community groups from taking responsibility for their own fire safety. Whelan, for example, argued that "it is not uncommon for communities to be almost totally excluded from the disaster planning exercise for

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<sup>148</sup> Boura, 1994, 7

<sup>149</sup> Martin, 1991

<sup>150</sup> Martin, 1991, 777

<sup>151</sup> Martin, 1991, 777

<sup>152</sup> Campbell, A., 1994, 198

<sup>153</sup> Lewis *et al.*, 1994, 10; Barber, 1977, 198

their area" and that "often community preparedness is seen by officials as something which can be achieved through the publicity of decisions which have been made for the public."<sup>154</sup>

An example of this is the practice of evacuating communities in the event of a bushfire, which effectively takes the decision to evacuate or stay out of the hands of individuals in the event of a major fire. This practice has been criticised. After the Ash Wednesday Bushfires, Miller *et al.* reported that police measures in evacuating people were "too severe and inflexible and ... lacked understanding of the situation and the needs of the local community."<sup>155</sup> The Standing Committee on Forestry also reported that the 1983 Ash Wednesday Bushfires "showed that police powers of evacuation were not clearly understood by the public and sometimes even by the police. It is generally considered that evacuation of people from property against their will, should not occur, even if a disaster has been declared."<sup>156</sup> Yet the recent New South Wales Bushfires demonstrated that agencies continue to assume responsibility for the safety of communities at risk and order evacuation.

Secondly, fire management agencies frequently do not have the skills to support community participation in disaster mitigation. As a result, fire management agencies "tend to 'talk' more about public involvement than they involve themselves in it."<sup>157</sup> An analysis of the characteristics of effective Landcare groups suggests that many are influenced to a large extent by the quality of technical advice and facilitation skills to which the group has access.<sup>158</sup> Facilitation involves understanding and applying participative processes in order to help community groups work effectively. Campbell observes that facilitation skills now being applied by Landcare facilitators differ fundamentally from the extension approach traditionally employed by land management agencies.<sup>159</sup> Rather than simply delivering information, he notes how facilitators employ such techniques as skilled listening, asking the right questions of the right people at the right time, and understanding when to intervene in a group and when to strategically withdraw, to help Landcare groups function effectively.<sup>160</sup> Fire management agencies will have to develop skills in the application of participative processes if they are to comprehensively deal with the special problems associated with the special problems associated with the urban-bush interface.

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<sup>154</sup> Whelan, 1987, 10

<sup>155</sup> Miller *et al.*, 1984, 84

<sup>156</sup> Standing Committee on Forestry, 1984, 7

<sup>157</sup> Magill, 1992-3, 3

<sup>158</sup> Campbell, A., 1994, 201

<sup>159</sup> Campbell, A., 1994

<sup>160</sup> Campbell, A., 1994, 204-5