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**DISASTER  
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AUSTRALIA**

# AUSTRALIAN JOURNAL OF EMERGENCY MANAGEMENT

ISSN: 1324 1540

Volume 28 | No. 2 | April 2013

**GENDER  
EDITION**



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bushfires**

**Ensuring women's voices are  
heard and their experiences  
and needs incorporated into  
disaster management**

**Practical stories addressing  
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Please note that some contributions to the *Australian Journal of Emergency Management* are reviewed. Academic papers (denoted by ) are peer reviewed to appropriate academic standards by independent, qualified experts.

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## Australian Journal of Emergency Management

Vol. 28 No. 2, April 2013 ISSN: 1324 1540

### ABOUT THE JOURNAL

The *Australian Journal of Emergency Management* is Australia's premier Journal in emergency management. Its format and content is developed with reference to peak emergency management organisations and the emergency management sectors—nationally and internationally. The Journal focuses on both the academic and practitioner reader and its aim is to strengthen capabilities in the sector by documenting, growing and disseminating an emergency management body of knowledge. The Journal strongly supports the role of the Australian Emergency Management Institute (AEMI) as a national centre of excellence for knowledge and skills development in the emergency management sector. Papers are published in all areas of emergency management. The Journal emphasises empirical

reports but may include specialised theoretical, methodological, case study and review papers and opinion pieces. The views in this journal are not necessarily the views of the Attorney-General's Department.

### PUBLISHER

The *Australian Journal of Emergency Management* is published by the Australian Government's Attorney-General's Department. The Journal is published on the Australian Emergency Management website at [www.em.gov.au](http://www.em.gov.au).

### COVER

Considering aspects of gender in emergency planning and recovery is vital as "both women and men have specific short-term needs and long-term interests in disasters. Women are key economic actors throughout the disaster cycle of preparedness, mitigation, relief, and reconstruction". (Elaine Enarson, American disaster sociologist)

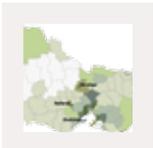
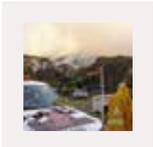
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**PUBLICATION DEADLINE**

The Journal is published on the last day of January, April, July and October, each year. Copies of the Journal are distributed quarterly without charge to subscribers throughout Australia and overseas.

**CIRCULATION**

Approximate circulation: 3 000.

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# Foreword

By Naomi Brown, interim Chair of the Bushfire and Natural Hazards CRC, Chair of the WA Marine Science Institution, and retired Chief Executive Officer, Australasian Fire and Emergency Service Authorities Council.



**In November 2012, I retired from the Australasian Fire and Emergency Service Authorities Council (AFAC) after six years as Chief Executive Officer. It is therefore from that reflective vantage point that I write the Foreword for this edition of the Journal. Interestingly, in reflecting on my career, I find an interweaving thread that has connected what, in effect, are three different but complementary careers. In each field of education, human resources and, more recently, in emergency management, equal opportunity and gender equity have been consistent themes and goals.**

When I commenced my employment in education in the 1970s, I was offended by the direct and indirect discrimination endemic in the education system at that time. With a number of like-minded colleagues we lobbied hard for the introduction of merit based promotion in place of the traditional seniority based process. As the Women's Advisor at the Western Australia Teachers' Union, I established the first women's conference for State School Teachers' Union members in that state. When I moved into human resource management, I worked as an Equal Opportunity Coordinator with an emphasis on equal opportunity for women and increasing the employment

of Indigenous Australians. This period included a secondment as the Director of Women's Interests, working to the Premier.

I had great luck in that I fell into the field of emergency management at a time when it was conducive to appointing non-uniformed personnel to senior roles. This allowed a breadth and diversity of experience and expertise, enabling not only a voice for non-operational areas of agencies that focused on community safety and education, but coincidentally, a voice for women in a male dominated sector.

In looking around the fire and emergency sector in 2013, it would appear that those times have passed. Restructures and a revised emphasis on uniformed roles have seen the departure of many of the women in senior roles that were in a position to inform policy and strategy. While there are significant numbers of women in the volunteer ranks including in positions of authority, the numbers of women career operational roles has barely moved in decades. It would be useful to ask why police and, increasingly, ambulance services have been so successful in this field where fire and emergency services have not.

It is promising to see the number of articles in this edition that bring to light the evidence-base for a gendered approach in emergency management—ensuring perspectives related to gender are considered and that both genders be able to participate fully in and benefit equally from emergency management measures. The socially constructed roles, behaviours and attributes of men and women have significant implications across all aspects of emergency management. Women and men are involved in and affected differently by disasters. For too long we have been 'gender-blind' when developing policy, planning for, responding to, and recovering from disasters. The articles and practical stories in this journal edition draw on the Victorian Black Saturday bushfires and recent Victorian and South Australian research and show that resilience to disasters is affected in important ways and on a large scale by gender. Openly seeking, valuing and implementing a gendered perspective to emergency management is requisite to building disaster resilience.

# Gendered communication and public safety: women, men and incident management

Dr Christine Owen, University of Tasmania, details research into the effects of gender on team communication and discusses ways to overcome the negative impacts.

## ABSTRACT

Managing emergency events requires incident management teams to actively pool their ideas and concerns to resolve challenges, although this frequently does not occur. Using a mix of quantitative and qualitative research methods, this paper explores whether gender may be an underlying factor. The quantitative findings indicate that women report different experiences of communication in incident management teams. In seeking to provide an account as to why this might be the case 24 qualitative interviews with incident management team members were examined. The findings reveal cultural challenges to team communication and specifically a masculinist culture (i.e. acting with high confidence and bravado). The legitimacy of these displays is contested by both men and women because of their negative impacts on team communication and co-operation. Strategies for overcoming the negative impacts of masculinist cultures and the role of leadership and training are discussed. <sup>R</sup>

## Introduction

Identifying and communicating signals that indicate potential areas of concern or failure in emergency management response work is imperative. However recent research identifies that there are barriers in teams to speaking up (Barton and Sutcliffe, 2009; Lewis *et al.*, 2011). In part this is because the communications culture within incident management teams is not always conducive to speaking up to test assumptions or express concern. This is, in part, because of the complexity and demands that such teams have to manage during emergency events.

This complexity comes from a range of interdependencies in social, technical and infrastructure systems that increase vulnerability (Boin and 't Hart, 2010; Yates and

Bergin, 2009). The impacts of a disaster experienced in one community can affect many others because of a reliance on, for example, energy, transport or agriculture (CSIRO, 2010; COAG, 2011).

Managing emergency events is more complex in consequence because there is now a reduced tolerance of failure (e.g. Bigley and Roberts, 2001; Boin and 't Hart, 2010; Murphy and Dunn, 2012). Public opinion about what constitutes appropriate or poor management of emergency events places decision-making during such events under increasing forensic scrutiny (VBRC, 2010; GWA, 2011; QFCI, 2012). For emergency managers whether incident management is judged a success or failure is externally determined and done so in a post-hoc and arbitrary manner (Owen 2012). The consequences of decisions made thus become more important.

Research into team performance in safety-critical industries (e.g., Weick, and Sutcliffe, 2001) suggests that communication is vital to enable the constant adjustments that are needed in managing complex and dynamic events. It is important to understand the experiences and perceptions of those responsible for managing emergency events and to assess their perceptions of the relative strengths and weaknesses in incident management teamwork to better understand what may need to change.

The people comprising incident management teams in emergency events (sometimes called emergency management teams) come from diverse backgrounds. They include men and women of differing ages, experiences and interests. Yet all need to work together to co-ordinate and achieve common and agreed purpose. Effective teamwork is therefore essential to achieve highly-reliable organising under conditions of information ambiguity, complexity and constant change, as is the case in fast-moving, unfolding emergency events.

## High-reliability and team communication

Organisations deliver highly reliable performances when members have the ability to prevent and manage mishaps before they spread throughout the system causing widespread damage or failure (Barton

and Sutcliffe 2009, p1329). This occurs when team members engage in social mechanisms for monitoring and reporting small or weak signals to one another (e.g., that something might be wrong) and members have the capacity to adjust to these changing conditions. Thus members have both the flexibility required and the capability to respond in real-time, reorganising resources and actions as necessary. In this regard high-reliability organising and safety is achieved through human processes and relationships. Members share what they know, raise concerns about weak signals of possible failure, and the team adjusts, tweaks, and adapts to these small cues or mishaps. If these signals are left unaddressed they could result in larger problems and potential failures in safety.

However, the ability of people to speak up requires an open communications climate and psychological safety (Edmondson, 2005) so that multiple perspectives can be heard and actions re-evaluated and adjusted. In their research Barton and Sutcliffe (2009) interviewed 28 experienced firefighters and from those interviews extracted 62 cases of incidents that had either gone well or had resulted in bad outcomes. A key difference between those that ended badly and those that did not was the extent to which individuals voiced their concerns about the early warning signs. Doing so creates an opportunity to stop and reassess. The existing plan of action may still be appropriate though early warning signals may mean adjustments are required.



**Incident management teams must pool their ideas to meet the challengers of emergency situations.**

### High-reliability and voice

Researchers in fire and emergency management in the United States characterise the ability to speak up and raise concerns in emergency management response as “voice”. Lewis, *et al.*, (2011) discuss how avoiding injury or even death on the fire line may depend on firefighters voicing their concerns. However, they also note that this occurs infrequently. Their study, involving in-depth interviews with 36 wild-land firefighters in the US, explored the reasons why firefighters did or did not voice their concerns. They noted that reasons for not voicing concerns may be because certain

external cues were not recognised. However, in large part, they concluded that not speaking up was due to social influences that inhibit people from doing so. These included:

- fear that no-one will listen
- pressure to remain silent for career concerns, and
- failure due to becoming distracted or complacent.

In a similar study Barton and Sutcliffe (2009), reported that other important factors inhibiting the ability to speak up included leader behaviour (e.g., failing to test assumptions or look for countervailing views) and follower behaviour in remaining silent in deference to perceived leader expertise.

The question remains, how does organisational culture impact on voice and to what extent might culture and voice in emergency management be gendered? This paper reports on findings from research set out to address the following questions:

- Are there any differences in the reported experiences of men and women working in incident management teams?
- To what degree is the culture of fire and emergency services gendered and what are the implications for voice in team communication?
- What are the possibilities and constraints that may need to be addressed for the future?

### Gender and emergency management

Gender in emergency management is a little researched or understood topic (Enarson and Chakrabarti, 2009). This is interesting given that disasters are not gender neutral (Chauhan, 2008). Where there has been research, attention has been unbalanced with an emphasis largely on disaster mitigation strategies (Enarson and Morrow, 1998; Enarson and Chakrabarti, 2009), disaster preparedness (Erikson, *et al.*, 2010) or recovering from events (Maithreyi, 1997). Enarson and Chakrabarti (2009) for example point to the increased vulnerability of women following disasters. The impacts on women, particularly the poor and those in less-developed countries, are much more profound. Moreover, stereotypes of women prevail, as women are portrayed as passive and victims (Childs, 2006). This occurs, despite the finding that women are best placed in communities to organise and lead recovery efforts because of their networking, management skills, and local knowledge (Enarson and Chakrabarti, 2009).

In the context of emergency management response, researchers and scholars have long commented on the absence of women, both from emergency management response and leadership positions (see for example Drabek, 1987; Wilson, 1999). However, there have been some notable exceptions (see Pacholok, 2007; Lois, 2001; Maleta, 2004).

Pacholok (2007) for example, explored the case of a catastrophic wildfire in Canada in 2003. She conducted in-depth interviews with 40 firefighters along with field observations and secondary documents analysis

in relation to the reporting of the fire. She reported how the firefighters struggled to come to grips with what happened, in part because the occupational identity of firefighting is built on a culture of winning. She observed that being involved in a fire that was regarded as a failure undermined a firefighter's privileged occupational status and established different hierarchical firefighting groups.

Researchers examining the role of gender in high-risk activity have contended that men and women perceive (and act on) risk differently (Lyng, 1990; Lois, 2001). In examining gender in emergency rescue teams in North America for example, Lois (2001) conducted an analysis of 20 men and 10 women in rescue work through participant observation and in-depth interviews. She observed that men would engage in high confidence displays and assert that they could out-perform each other, discussing their own strength and bravado during social hours at the bar. According to Lois and to other gender scholars (e.g., Connell, 1987; Beneke, 1997), this represents a culture of masculinity. Hegemonic masculinity is reproduced and reinforced through media and through social interaction. In the media for example, men's performance is glorified as heroic through their physicality, their daring behaviour, their power and their emotional detachment. Such masculinity is seen as hegemonic in that it is dominant over alternative masculinities held by, for example, gay men or nurturing fathers (Kimmel, 2008; Connell 1987). Lois (2001) notes that masculinity, but not femininity, must be constantly proven. It is also important to point out that norms of behaviour regarded as appropriate within a masculinist culture can be practiced by both men and women.

Other researchers contend that women cannot be stereotyped into passive or lower ranked roles since, drawing on Foucault, power is productive and relational rather than simply repressive and hierarchical (Cooper, 1994). In research conducted by Maleta (2009), the gendered and cultural experiences of Australian female firefighting volunteers were examined. She concluded that women experienced both inclusion, in terms of camaraderie, fellowship and community participation, and exclusion in terms of leadership and bravery. Her research suggests that by actively participating in a masculinist socio-cultural context, women were not subordinated or marginalised but were simultaneously challenging and recreating cultural norms and perceptions. "The positioning of women within a male culture is not straightforward and it is presumptuous to assume female oppression or subordination when traditional roles and identities are undergoing transformation" (Maleta, 2009, p296).



**Women and men play an active and co-operative role in incident management teams.**

## Method

The findings reported here are drawn from a wider study, conducted from 2006 to 2012, investigating the communicative practices of incident management teams in Australia and New Zealand. Following ethics approval from the University of Tasmania, the research methods included two organisational surveys (2008; n=676; and 2011; n=206); interviews with 24 personnel engaged in incident management teamwork, along with 80 hours of observations of incident management teams<sup>1</sup>. The discussion draws on research from the first organisational survey and uses data from the second survey, the interviews and the observations to triangulate and explain some of the survey findings.

The organisational survey was first piloted with relevant industry groups which included Australian and New Zealand representatives. The survey was distributed to 25 fire and emergency services agencies<sup>2</sup> with instructions to achieve a stratified sample of personnel working in key functional positions. These were:

- a) on the fire or incident ground
- b) in various functional units of incident management teams, and
- c) in regional and state<sup>3</sup> positions.

Where the sampling instructions were followed the surveys achieved a 54 per cent response rate. Two agencies, in addition to following the sampling instructions, placed the survey on an intranet website. Given that responses from these agencies accounted for less than 7 per cent of the overall survey responses this is not likely to have impacted on the sample.

The survey consisted of five parts. The first part asked participants to think about and provide details on a recent emergency event where they had performed their designated role. Parts 2 to 4 of the survey asked

1. For more details of the various research conducted, please refer to the Bushfire Cooperative Research Centre [www.bushfirecrc.com/projects/8-1/effective-incident-management-organising](http://www.bushfirecrc.com/projects/8-1/effective-incident-management-organising).

2. State level agencies in Australia and their equivalent in New Zealand.

3. National in New Zealand.

participants to respond to Likert-type statements<sup>4</sup> that sought information on perceptions of teamwork; information flow between teams; and levels of satisfaction with organisational processes. The final section sought demographic information about the participant.

In describing the type and characteristics of the event, 70 per cent of respondents reported on a Level 3 incident. In Australia and New Zealand the Incident Control System is graded at 3 levels with Level 3 as the most serious. Of the 71 survey respondents describing urban incidents, the median was a 4th alarm. The alarm number indicates the amount and type of resources required and actions taken, therefore relating directly to the size of the incident. A 4th alarm is a complex incident. In reporting what was under threat in the incident (used as the referent by the participant), 60 per cent reported that life was under threat while 78 per cent reported homes and buildings under threat. It can be concluded that the events reported in the survey by participants were serious and personnel were facing reasonably high consequences.

Where information was provided on the sex of the participant 478 (86 per cent) were men and 78 (14 per cent) were women. Women were also more heavily concentrated in the incident management team areas of planning and logistics (see Table 1). The proportional representations in the survey sample of men and women in certain emergency management roles and functions is consistent with what was also noted in the observations conducted in five states in Australia<sup>5</sup>.

The survey sample was, however, more heavily populated by personnel engaged in employment relationships with agencies—451 (82 per cent) of participants were employed in a full or part-time basis

and 94 survey participants were engaged as volunteers. There were no reported statistically significant differences by sex in employment relationships in the sample.

The age and experience levels reported were slightly lower for women. The median age of women in the survey was reported as 37 years and the median age of men was 45. Personnel in positions of decision-making authority, such as incident controllers were considerably older. Almost all of the 104 incident commanders/controllers surveyed (97 per cent) were men, with a median age of 53. The median number of major incidents attended for women was 6-10 incidents and the median for men was 11-20. The demographic profile of the survey sample is consistent with the observations conducted. For example, in the 25 observations conducted no women incident controllers were observed.

## Results and discussion

The results are discussed around four themes.

### Gender and teamwork communication

Men and women reported statistically significant differences in key aspects of teamwork climate, information flow between teams and experiences of emergency management organisational processes (see Figure 1)<sup>6</sup>. In summary, women reported less satisfaction with information exchange and the communication climate, and reported that they were less involved in decision-making. The data also show that women were less satisfied with the information received from other team members, particularly at periods of hand-over, and were less comfortable in speaking up and asking questions (see Figure 1)<sup>6</sup>. In terms of 'voice', these findings represent a potential risk to safety. If information is not shared there is a potential to lose valuable intelligence resulting in a reduced level of awareness that could impact safety. The data indicate that 'voice' is differently experienced by men and women in high consequence emergency management response teams.

### Gender and culture in emergency management

Barton and Sutcliffe (2009) suggest that it may be useful to explore how action and culture reflexively determine safety. Safety is "a property of the interactions, rituals, and myths of the social structure and beliefs" of those involved (Rochlin, 1999, in Barton and Sutcliffe, 2009, p1352). Findings from the second survey are most useful here. Participants were asked to comment on the impediments to gaining an awareness of the emergency situation, which is a precursor to effective action. In responses from 151 participants, three themes are pertinent to this analysis. The most frequently reported theme was a rigid or autocratic management style, or as one (male) participant put it "a 'my way or

**Table 1.** Incident management team gender mix.

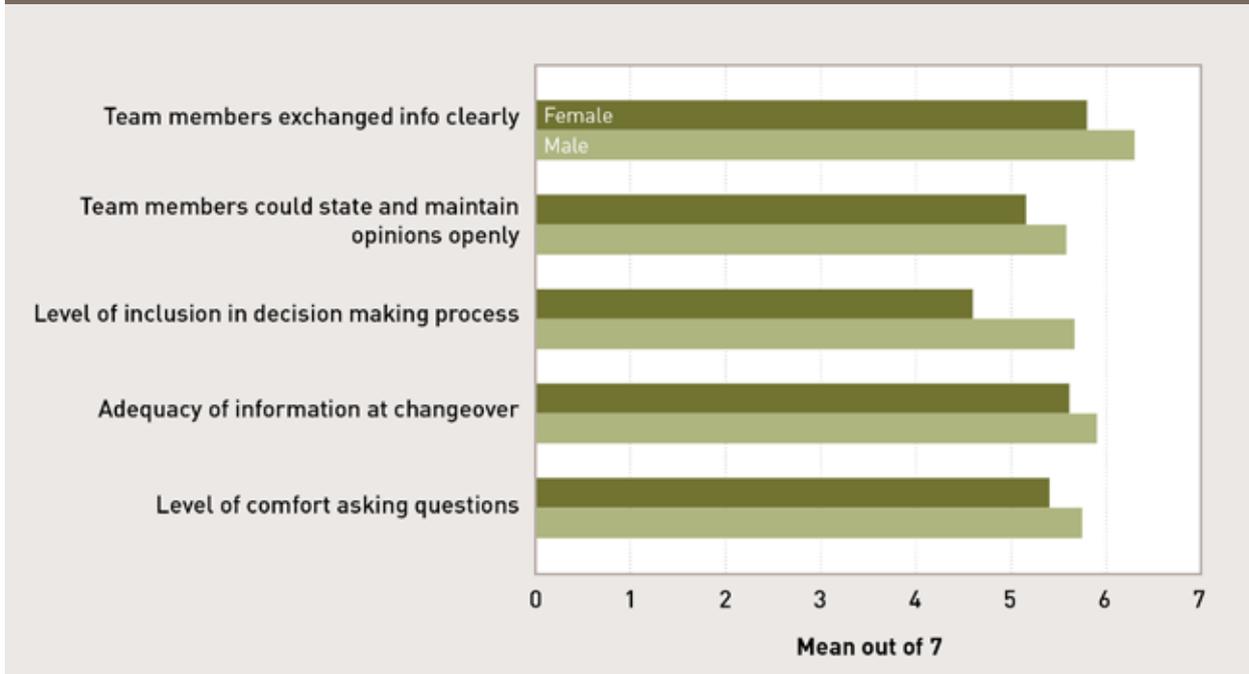
	Male N (%)	Female N (%)	Total (M &F) N (%)
Fire ground/ incident ground	100 (21)	7 (9)	107 (30)
IMT IC/DIC	113 (24)	4 (5)	117 (29)
• Operations	93 (20)	3 (4)	96 (24)
• Planning	82 (17)	33 (43)	115 (60)
• Logistics	33 (7)	17 (22)	50 (29)
IMT others	12 (3)	3 (4)	15 (7)
Above the IMT	43 (9)	10 (13)	53 (22)
<b>Total N (%)</b>	<b>476 (100)</b>	<b>77 (100)</b>	

4. Level of agreement on a scale of 1 to 7 with a "not applicable" option.

5. No observations were conducted in New Zealand.

6. All items in figure 1 are statistically significant at the .001 level.

Figure 1. Mean values of male and female perceptions of teamwork indicators.



the highway’ sort of attitude”. Another theme related to personal attributes that inhibited the sharing of information. As one (female) participant explained this was represented by a “bravado and a lack of respect for others”. To who the “other” category might be referring was not mentioned, though it can be deduced that it was other people not like him.

The final communication theme related to withholding information which appeared from the context, to relate to inter-agency information flows.

The findings reported are consistent with a masculinist culture as discussed earlier. Interview responses illustrate the point.

I: So what are the challenges?

R: People will always be people and I don’t mean to be sexist but you know, boys will be boys and the testosterone gets flowing and boys are very competitive or want to prove a point ... and there’s always you know, the tribal instinct coming out in all of us [being stand-offish], we’re only being human. (male Incident Controller)

This comment is somewhat contradictory. On the one hand there is an espoused resistance to masculinist cultures of “testosterone” but on the other hand there is an attempt to normalise and indeed reproduce and naturalise a culture of masculinity (Pacholok, 2007). In another comment, from an urban context, the interviewee discussed the impact of what he called the “command and control type attitude” and its negative impact on communication and co-operation.

R: You can see it all the time. An effective officer builds a really quick relationship with their counterpart and explains in terms they can understand and creates a rapport with them and things work. Other people adopt this really command and control type attitude that “you can’t come in here [be]cause this area is mine” and it just sets this chain of interpersonal conflict that puts everyone at risk. (male, Urban Commander)

In these two interview extracts men discuss how they observe their counterparts acting within a masculinist culture. It is suggested that interpersonal conflict puts people at risk because it is likely to take the focus away from managing the event and to inhibit sharing of information.

**Gender and leadership identity**

Goffman (1959) regarded behaviour in everyday life as a performance, with many similarities to theatrical performances. In Goffman’s terms, the main objective is to sustain a particular definition of the situation, that is, to behave in a certain way that makes an implicit statement about what is real and important in the interaction.

A ‘command and control’ type of social identity is one where the recipient conveys an aura of being calm and establishes a projection of what that person sees as important, which is that they are ‘in control’. While establishing control is clearly part of a leader’s responsibilities, it is important that it not be conflated (merged) with a style of communication that does not actively encourage input, or invite the contribution of diverse perspectives or the voicing of concerns. It is unfortunate that this style of leadership continues to be promulgated within the broader emergency services literature (see for example Murphy and Dunn, 2012).

Social interactions and cultural practices such as those associated with masculinity shape the social identities of all those engaged in high-risk communication, both male and female. This can reinforce silence both for the leader as well as for team members. In part this is because the 'command and control' type attitude can limit contrary expressions of concern or disagreements and also encourage such leaders to display bravado and over confidence. Under these circumstances neither men nor women are likely to share what they know if this is at odds with a prevailing leadership view, or to voice contrary concerns potentially relating to life and safety decisions. As the survey results suggest this has a greater impact on women who report less satisfaction with the level of openness in the communication climate of incident management teams.

### Culture, gender and managing emotion

Another aspect of interest is the way in which men and women experience emotion within high-consequence work and its potential implications for team communication and action. Lois (2001) found that men and women manage emotions differently when engaged in high-risk rescue missions. According to Lois (2001), women interpreted emotions arising from adrenalin as fear, whereas men interpreted this as urgency. This is potentially significant when emergency responders are employed in a socio-cultural context where social pressure is high to 'get the job done' (Barton and Sutcliffe, 2009). In Australia, this relates to a 'can do' cultural norm. The urgency to act can lead to what Barton and Sutcliffe (2009) term "dysfunctional momentum". They suggest that momentum in action, in and of itself, merely implies a lack of interruption in the tasks at hand. However, when individuals or teams continue to engage in a course of *failing* action, (i.e., action leading to undesired or incomplete ends), then this becomes dysfunctional. One of the keys to overcoming dysfunctional momentum is speaking up. This is because speaking up acts as a reminder to stop and think about the bigger picture and to test assumptions to recalibrate planning and action. The proposed plan and the current action may be appropriate to the demands of the event. However acting with "dysfunctional momentum" represents considerable risk.

Two critical social processes are important in enabling dysfunctional momentum to be overcome. The first is giving voice to concerns and the second is the way in which leaders actively seek alternative perspectives from followers. These communication practices appear to stimulate interruptions and to reorient the actors involved.

### New strategies

Changes in training to improve the use of all resources and personnel engaged in emergency management teams is required. Training needs to include the impact of human factors on decision-making and to engage participants in critically reflecting on the cultural reasons within emergency services that may inhibit

men and women from speaking up. This training needs to raise the gendered nature of team communications and emergency management culture. It is interesting to note that most literature aimed at enhancing team communication in safety critical industries is silent on gendered communications (see for example Flin, *et al.*, 2008; Cannon-Bowers and Salas, 2000).

In addition there are strategies that can be employed to support men and women in contesting the negative aspects of the masculinist culture. Training and professional development programs for leaders can identify practices that shut down communication and provide feedback in simulation and through mentoring strategies that open up communication and proactively (and efficiently) seek countervailing views to test assumptions. Team member training programs (e.g., crew resource management and "non-technical skills" training – see for example Flin, *et al.*, 2008) can also be systematically embedded in incident management team training for leaders and followers. Followers also need to recognise their responsibility in leaving masculinist cultural practices uncontested. Doing so tacitly supports and enables this hegemonic view.

Women also have a key role to play. Through their networking and knowledge exchange they can provide opportunities to frame and shape the kinds of communicative practices that are productive. By working with others using communication approaches more satisfying and effective for them, their actions can shape and change incident management teamwork culture for the better. The message here is to not settle for what is, but to actively shape interactions that might bring about the information exchange that is necessary.

Finally, organisational leaders have a role to play in supporting women to move into operational and leadership positions. As indicated in the demographic data, time is on their side. The relational understanding and engagement women may bring to emergency management leadership positions is likely to change the existing command and control culture and teamwork communication and co-operation.

### Conclusion

This paper addresses three research questions. In relation to the first, there were differences reported in the experiences of men and women working in incident management teams. The findings indicate that women report less satisfaction with information sharing within their teams and are less satisfied with the information they are given at work-shift changeovers. Women also reported feeling less comfortable with speaking up and less engaged in decision-making. This has implications for incident management team leaders (e.g., incident controllers) and functional unit leaders (e.g., planning officers) in an operational response because it reveals that the voices of women and the perspectives that they may contribute are not taken into account.

The second research question examined the role of culture and its implications for the results reported



Image: Christine Owen

An incident management team briefing.

in question one. The findings suggest that there are particular cultural practices associated with masculinity that work to shut down communication and contribute to the marginalisation of women's voices.

The final research question examined the possibilities and constraints and suggested some strategies for the future. These included opening up how those in leadership positions, as well as followers, tacitly contribute to the existing hegemony. Men and women, leaders and followers have a role to play in contesting and changing teamwork culture. In addition there is a particular role for those in organisational leadership positions. There is a need for strategic human resource planning to move women into positions of operational emergency response and leadership.

There are many research implications for these findings. At present we do not know whether women will have different approaches than men. It will be important in the future to examine the potential differential management and leadership strategies women might bring to emergency management leadership. Another area for future research relates to the impact women might play in inter-agency coordination. Inter-agency co-ordination is increasingly important as organisations and systems become more interdependent. There is reason to suggest that women's ways of exercising leadership is likely to significantly contribute to the effectiveness of emergency management performance (Enarson and Morrow, 1998; Wilson, 1999). Further insights gained from the gendered nature of teamwork

communication and emergency services culture has potential to significantly increase the effectiveness of emergency management performance at a time when it is most critical.

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## Acknowledgement

This research has been conducted with funding from the Bushfire Cooperative Research Centre.

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# Place matters

Mae Proudley, Monash University, explores the disrupted relationship between people and place in the aftermath of bushfire.

## ABSTRACT

*Home is where one starts from.*  
(T. S. Eliot, 1940)

Emotional bonds with places can form or change through experiences of tragedy and loss. The loss of one's chosen dwelling place in a bushfire is sudden and devastating. This paper explores the disruption of traditional gender roles and sense of place that occurs in the aftermath of a catastrophic event. Narratives of fire-affected men and women, residents of Central Gippsland whose lives were fundamentally altered by the 2009 Black Saturday fires in Victoria, reveal the complexity of identity and belonging in the post-bushfire landscape. Decision-making after the fires, particularly for those who lost everything, about whether to rebuild or relocate is a major theme. This ongoing research focuses on the role that place has in the lives of individuals, couples and families impacted by a severe bushfire. It is clear that more Australian research addressing the role of place attachment (and place detachment) within the context of disaster recovery and community resilience is needed. <sup>R</sup>

## Introduction

This paper reports on a case study which is, primarily, exploring the role place has in the lives of individuals, couples and families affected by bushfire. What is presented here reflects the ongoing nature of the research.

During late January and early February 2009 a heatwave descended on south-eastern Australia. According to the Bureau of Meteorology, records were set in Adelaide and Melbourne for the most number of consecutive days above 43°C (109.4°F). Health authorities believed that Victoria's "record-breaking heatwave might have contributed to the deaths of 374 people" (Cooper, 2009).

After years of drought, the heatwave created extreme bushfire weather conditions. On Saturday 7 February 2009 hundreds of fires burned across Victoria. In Melbourne the temperature peaked at 46.4°C (115.52°F) – exceeding the previous all-time record. When 173 men, women and children perished on that day, now widely referred to as Black Saturday, Australia suffered its highest loss of life from a bushfire. Over 2 000 homes were destroyed and in excess of 7 500 people were displaced across 78 townships. Behind these clinical statistics are permanently altered lives. The Black Saturday fires dramatically changed the physical and social landscape.

*To be human is to live in a world that is filled with significant places: to be human is to have and to know your place* (Relph, 1986, p1).

## Place attachment

There is an abundance of literature, across many disciplines (urban studies, human geography, environmental psychology, to name a few), about the connections between people and their physical environments. Multiple concepts have been proposed to describe how space evolves into a meaningful or special 'place.' Some of these include: 'sense of community,' 'sense of place,' 'place identity,' 'rootedness to place,' 'place dependence' and 'place attachment' (Tuan, 1975; Relph, 1986; Altman and Low, 1992; Manzo, 2003; Vanclay, *et al.*, 2008).

Cox's (1996) study of the 1983 Ash Wednesday fires investigated the loss of sense of place in a Victorian coastal community. The "relationship that many people have in this area with the natural environment: the bushland; the ocean; the flora and fauna" was a key theme which featured in the 40 interviews she conducted with residents and relief workers ten years after the event (Cox, 1996, p210). Cox (1996) reported links, articulated by some of the interviewees, between the regeneration of the landscape and personal healing.



The loss of property, possessions and a loved environment is devastating after bushfire.

In 2003 Albrecht, an Australian environmental philosopher, created a new term – *solastalgia* – to describe the lived experience of negative environmental change (mining, natural disaster or climate change are examples). Albrecht (2005, p48) noted that there are places on Earth that are not completely lost, but are radically transformed and that solastalgia is “a form of homesickness one gets when one is still at ‘home.’” This concept describes what many men, women and children confront in a post-bushfire landscape; “the most poignant moments of solastalgia occur when individuals directly experience the transformation of a loved environment” (Albrecht, 2005, p49).

In their Tasmanian study Paton, *et al.*, (2008) identified how attachment to place can influence the level of preparedness undertaken by householders living in high bushfire risk areas. The emotional investment that residents have with their interior (home/garden) and exterior (neighbours, the landscape and the wider community) can potentially motivate them to enhance their safety.

Hurricane Katrina (August 2005), in the USA, generated an abundance of social science disaster research. In contrast to Australia, international research that focuses on sense of place from the post-disaster perspective is thriving. Understanding the dearth of Australian literature on the subject, this paper endeavours to provide a step towards recognising the important role that sense of place plays within the context of disaster resilience.

### Gippsland case study

The Latrobe Valley, in the Central Gippsland region of Victoria, is the geographic focus of this research. To the north of the fieldwork site is the Great Dividing Range

and to the south are the Strzelecki Ranges. This region is recognised as the centre of the Victorian electricity industry, with one of the largest brown coal reserves in the world. The biggest town, Traralgon, has a population of approximately 22 000 and is a two-hour drive east of Melbourne.

On Black Saturday the Churchill-Jeeralang fire, which began in pine plantation a kilometre south east of Churchill at about 1:30pm, created havoc across the small communities of Callignee, Koornalla, Le Roy, Traralgon South and surrounding areas. The fire destroyed 247 houses and caused 11 fatalities—eight men and three women.

In order to gain a deeper understanding of the changes and upheavals triggered by a severe bushfire, 25 in-depth and semi-structured interviews were conducted, over two years after Black Saturday. This involved 33 men and women in the townships of Callignee, Callignee South, Koornalla, Traralgon South and Traralgon. Participants were recruited through established networks (including the local branch of the Country Women’s Association, a playgroup, the Stitch & Chat craft group) and community notice boards (at the General Store in Traralgon South and the Gippsland campus of Monash University in the town of Churchill). Further contributions were obtained through suggestions offered by several participants in the study. Across the interviews there were variations in age (ranging from 20 – 70 years), occupation, cultural background, family structure and socio-economic status. As in research in South Australia, (Proudley, 2010), more women (20) than men (13) shared their reflections of living in, or being displaced from, a post-bushfire landscape. The established and active groups in the community who circulated the invitation to participate on behalf of the researcher, were all female which mirrored the higher

participation rate of women. Just under half (16 interviewees in total) had property burnt out (rendered homeless) by the fires.

Couples were given the choice of being interviewed together or separately. The benefit of interviewing couples together is the potential of learning from rich exchanges (through disagreements and debates) and witnessing the relationship dynamic. Interviewing couples separately removes the interactive component but adds the possibility of hearing a point of view that might not be expressed in the presence of the partner/husband/wife.

This case study, primarily, is based on narrative understanding. As White points out: *"listening to narratives about people's lives helps the researcher figure out what a particular place meant or means, how the actor understands the world, and how the actor perceives causality for the unfolding of life"* (White, 2012, p159). The Gippsland narratives form the core of this case study; inclusive of those who were displaced and those whose house survived (intact or damaged).

## Place disruption

The focus now shifts to the myriad losses and upheavals that feature heavily across the Gippsland narratives. Separating the losses and impacts of the bushfires into neat categories is complicated. For those who were burnt out, the primary focus was on loss of home and possessions—the repercussions that flowed from what Read eloquently describes as the "journey to nothing" (Read, 1996, pviii). For these men and women, objects saved during evacuation and objects distorted by extreme heat were sometimes given new meanings. Tension or changes (positive and negative) in relationships, loss of the natural landscape, concerns about mental health and wellbeing, new friendships and community connections were discussed by those whose homes survived or remained habitable immediately after the fires and those who were burnt out. The experiences of the burnt and the unburnt intersect and yet each individual has his or her own unique post-bushfire experience.

## Loss

All of the participants reflected on how they came to be living in that particular place. For some the bond to their land, or 'dwelling place,' was swift and for others it crept up on them. One man, in his early 60s, reminisced about the day he saw the 'For Sale' sign and walked around the 16 acres of land for the first time. He described feeling an instant connection,

*"Yeah it was a good feeling. I thought 'Well this is it. This is where I'll spend the rest of my days.'"*

He built a house for his family which he tried to defend on the day of the fires and was on the property, alone, when it burned. After the fires all that remained was the scorched land – their insurance had expired – and his wife said she would not return.

*"I said 'well I'm staying' so I haven't really spent any time away from the block other than sleeping next door."* (Male, 60s)

His experience—losing his home, possessions, marriage, and his entire way of life—illustrates the complicated tangle of loss in the aftermath of bushfire and how life, is suddenly and comprehensively, turned upside down.

## Unsettledness

One woman who, with her husband, was burnt out by the fires, sold their cleared few acres and purchased a house in Traralgon, said,

*"There's an unsettledness, I don't know what it is, whether it is a lack of belonging, of not really knowing where you are or where you should be and I think we both very much are still experiencing that."* (Female, 60s)

One word that is peppered across the Gippsland narratives is 'control.' For those who lost their home and possessions the decision that was required, to rebuild or relocate, was sudden and unwelcome. This major life decision was triggered by a bushfire— one that was the result of arson. The woman who mulled over the sensation of feeling unsettled referred to that lack of control.

*"I don't know, I can't explain it because I was even thinking that it was getting too much for us out there, and so if we had moved I wouldn't have felt like I do now. I think it's this being forced into something, and the decisions. You know the lack of involvement of things in your life. We're too old to start completely again, so that was why we're here, and we've sort of stayed here. It's small [their house] and it drives me crazy."* (Female, 60s)

One man, who was burnt out and quickly rebuilt, spoke about ongoing unsettledness. His family was relieved to escape the cramped conditions of their temporary accommodation and appreciated the space offered by their new home,

*"But it's sterile, it's still sterile now. The worst thing about – I don't know, everyday it's a different worse thing, but one of the most difficult things about losing everything in a fire, and I guess people lose to house fires all the time, but it totally changed everything about our place, not just the inside, not just the house, not just our stuff, but all our history. Basically it just wiped us, for the last 14 years, off the planet."* (Male, 40s)

He spoke about hasty decisions.

*"We wanted to get back so bad that we probably rushed it, but I just hated living where we were living and I just wanted to get back out here. I always wanted to from the word go, anyway, so I saw no reason to hold back, but looking back, hindsight's a wonderful thing."*

Another family that rebuilt (she wanted to, he didn't) had their house up for sale at the time of the interview. In a similar vein, when they first moved into the new house

(“44 weeks to the day we were stuck in Traralgon”) they were simply grateful to be back on their five acres.

*“But to this day it still doesn’t feel like home, it’s just a house, and I think a lot of it is because we resent it, because we had to do it....if we had a bit more hindsight, or thought it through a bit more we wouldn’t have rebuilt.”* (Female, 40s)

The reflections, from all participants, about their unsettledness reinforce the view that sense of place plays a central role in post-disaster decision-making.

## Tension within families

For the participants who relocated to Traralgon (at the time of interview two couples had retained their land and two couples had sold) age was cited as the primary reason for that decision. Of the two couples who still owned their land, conflict and unresolved tension about the decision to move into town was discussed. One woman in her 50s, living in a recently purchased house in town, spoke about her yearning to return to their 11 acres in Callignee. She describes living in Traralgon as “horrible”. She misses the birdlife (rosellas, rainbow lorikeets and kookaburras) and the peace and quiet – “you can hear the neighbours talking out in the yard”. The house they purchased is simply that “a house, it’s not my home”. She has a design for a new house but her husband is “not keen on moving back. At this stage he’s still having troubles, yeah. No. Not ready at all.” She is caught between her desire to return to the landscape she loves and her family.

Tierney (2012, p252) states that women and men “organize their lives and cope with life’s vicissitudes within specific places and spaces”. Several men expressed frustration at not being able to work.

*“I haven’t worked since about the May after the fires. I don’t believe I’ll ever go back to the sort of work that I used to do [management role] because I can’t get that focus.”* (Male, 60s)

A common concern raised by the female participants was the wellbeing of their men.

*“I think a lot of us women have found that we’ve sort of ‘lost our men.’ In a lot of ways they’ve changed. My husband hasn’t worked since the fires. He’s very, very forgetful – can’t keep things straight.”* (Female, late 50s)

One male, who openly spoke about being on medication and unable to work since the fires believes that men “insulate themselves very, very much” and that “there are a lot of blokes who I think are going to have long-term hassles, really long-term hassles” as a direct result of not accessing or seeking assistance (Male, late 50s).

The concern for the mental health of men was not restricted to those who were burnt out. One woman whose house survived said she knew her husband:

*“...was not happy and I’m thinking ‘I have to leave. We might have to go. I might have to give up here*

*because I want my marriage.’ My marriage is more important than my house, and my area and all that sort of stuff. I know of a few marriages that have hit the rocks.”* (Female, 40s).

Within the Gippsland narratives – the burnt and the unburnt – are couples united and couples divided about where ‘home’ is, isn’t or might be. In some instances the yearning to recreate what was lost is a driving force. For those who remain unsettled, the upheavals inflicted by the catastrophic fires linger; they have yet to find or reconcile themselves with their specific place or space.

## Environment, wildlife, livestock and pets

Similar to the findings of Cox (1996) people’s relationship with the landscape and their sense of connection to the natural environment, was powerfully articulated by the Gippsland participants. The most emotional topic, particularly for those who owned livestock, was the loss of animals and the concern for the welfare of livestock and domestic pets immediately after the fires when many people were prevented from returning to their properties for several days. One male participant (who was interviewed with his wife) said:

*“The thing that hurt me, I couldn’t stay out there [their burnt out 10 acres in Callignee]. We went out several times to do stuff up until the point in time we sold it, but the thing that used to upset me was I would only be there for half an hour and I would start to feel very melancholy because of the loss of the animals, and particularly of the goats.”* (Male, early 70s)

Another man described his distress at finding their goats.

*“I cried everyone. I had to bury 86.....and I cried every time I picked one up. ‘Oh Boy.’”* (Male, 60s)

For participants who were able to continue living in their home they were confronted by a dramatically altered landscape. Not only was it blackened, covered in ash and unrecognisable, it was silent.

*“One day I remember, all of a sudden there was a bird. I went outside and I started crying – I saw a bird. Who would think – I saw one bird, and you were just beside yourself.”* (Female, 40s)

The value people place on their connection to landscape, the domestic and wider environment, comes through strongly in the Gippsland narratives.

*“A solemn contract with each of these communities to rebuild: brick by brick, home by home, school by school, church by church, community by community.”*

Kevin Rudd, then Prime Minister of Australia, speaking at the National Day of Mourning, 22 February 2009.

## Discussion: rebuild or relocate?

The differences in responses to bushfire are affected by gender, age and socio-economic status. Other personal factors, such as personality, history of traumatic events and family structure, also play a part in how people react and cope in the aftermath. Economically-stressed households have fewer options and lack the buffer that the well-resourced, and/or fully insured, can use after the catastrophe. The pressures that flow from insecure or barely habitable housing can compound the trauma and grief. The link between financial security and resilience should not be neglected.

For outsiders, those untouched by a catastrophic event such as bushfire, recovery is often measured by the speed with which structures are rebuilt. The urgent priority, from a government perspective, is the restoration of essential services. At a domestic level, in the weeks and months following the fires individuals and families rendered homeless, often in shock, make major decisions about where their future will be, in the medium and longer term. Commonly, those who are burnt outface two options: to rebuild in the same location or relocate elsewhere (usually through renting or buying).

Rebuilding quickly, returning to as close to normal as possible, makes intuitive sense. A number of Gippslanders described how their immediate instinct was to rebuild—for some that decision paid off and for others it didn't. One man, living in a shed at the time of the interview, said he had met people who didn't want to rebuild but felt that it was their only option.

*"You know, if that's all you own is the block, and sometimes you think, 'Well, that's the only option, and some are quite happy and some are not, and until you build how would you know what you would be?'"* (Male, 60s)

Rapid restoration might have consequences in the longer-term. In their study of two small communities affected by a 2003 wildfire in Canada, Cox and Perry (2011) found that the "urgency driving the recovery and rebuilding process can obscure and leave unaddressed important social-psychological processes and unmet needs that can undermine long-term sustainability and community resilience" (Cox and Perry, 2011, p408).



After devastating bushfires, people face two options, rebuild or relocate.

The consultation with the local community cannot commence in a meaningful way until fire-affected people are allowed time to process the event—their input is crucial. Within the Gippsland narratives, across the burnt and the unburnt, men and women emphasised how time consuming it can be to re-establish their homes, gardens, routines and lives. Often, when they have reached the point of being able to engage with or contribute to the recovery effort at a community level it is too late. What comes through clearly in the Gippsland narratives is that the reconstruction of home and everyday routines is not a linear process. Several men and women who lost everything in the fires stressed that, for them, it only got harder with time.

*"Yeah, that's what – I think probably of everything that's the thing that I would like to get any sort of message out to anyone whose managing this stuff in the future or even now, that it's actually harder now to get yourself sorted, keep things going, than it ever was."* (Male, 40s)

Tierney (2012, p251) questions whether recovery exists. The word, 'recovery,' implies that there is a point of closure. How is recovery measured and who judges what constitutes a complete or successful recovery? When lives are disrupted so profoundly it takes time to process the trauma and weave it into our life story. The event then forms, to varying degrees, part of the person's identity in the present and into their future. Recent anniversaries of two severe bushfires in Australia – 30 years since Ash Wednesday, 10 years since the Canberra fires – remind us that recovery (or healing) is an ongoing process.

## Conclusion

This paper has flagged some emerging findings from an ongoing Gippsland case study of the 2009 Black Saturday fires. For some participants the losses were extensive and overwhelming. When politicians, with the best intentions, pledge to rebuild it is worth remembering that the "havoc raised by natural disasters extends far beyond physical destruction" (Morrow, 1997, p141). The recovery process needs to more meaningfully consider the role of place (Cox and Perry, 2011). Explaining how that might occur or be developed, within the context of the emergency management landscape in Australia, will be addressed deeper into the Gippsland case study.

There is no doubt that "extreme weather events are increasing across the globe and are likely to be more intense and to have a greater impact on people" (Alston, 2009, p121). Large or mass-scale displacement will continue to occur in Australia. Rebuilding a devastated community involves different strategies that should, "in the first instance, include a strong focus on building resilience – supporting people to restore their lives, whether in the community or away from it, and assisting communities to redevelop" (Alston, 2009, p126).

Recovery policies and practices might benefit from learning more about how fire-affected (or cyclone or flood-affected) people cope in their dramatically altered environment. How can survivors be better supported through the process of reconstruction? Can the resilience of communities living in high fire or flood risk locations be enhanced (prior to an extreme or catastrophic event) by connecting the disciplines of disaster studies and place-based research? How should recovery, as it is applied in practice from an emergency management perspective, focus on place?

The Gippsland narratives represent diverse experiences and responses. The narratives accentuate the need for context specificity in disaster management practices. The words of one woman, who experienced being burnt out and rebuilding on the same site, illustrate that variation of experience. She spoke about how she quickly embraced the altered landscape.

*"I'm much closer with this area and with people who I never met before. We did not realise where all the houses were, because we couldn't see each other before. It was all bush and trees, and it was closed, so now it's open and I love openness. There was lights again, and sound again and movement. Life."* (Female, 50s)

## Acknowledgements

This work is funded by a scholarship from the Gender, Leadership and Social Sustainability Research Unit in the Department of Social Work at Monash University. The author extends a warm thank you to the Morrissey family of Traralgon South and to all of the participants who kindly shared their reflections and insights into living in, and being displaced from, a post-bushfire landscape. The author would like to thank Fiona McDermott for her advice and feedback during the writing of this paper. The comments and suggestions from the reviewers were much appreciated.

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## About the author

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# practical stories

## Genesis of women's programs

*NSW Rural Fire Service Community Engagement is involved in fire safety programs teaching women a range of survival techniques.*

There has been a slow growth of bushfire safety programs for women in NSW following positive feedback from other brigades that have ventured into delivering specific programs for women.

## Women's fire awareness

The NSW RFS Canyonleigh Brigade targets women who are at home alone or with children while husbands or partners work out of the area. This group is one of the higher-risk groups in the community during times of emergency.

The program was developed in 2002 for the wives of NSW RFS brigade members. A community educator for the brigade decided that wives and partners of brigade members should be self-sufficient and ready to defend their property and family in an emergency. When the program started the training involved putting out spot fires, wearing the correct protective clothing, water pump practise, and property visits to discuss protection around the home.

It was a couple of years later that the same brigade member recognised that trying to change men's behaviour was significantly harder than trying to change women's. So he asked his wife, who had joined the brigade to learn basic fire management skills, to develop a women's program as he believed the program should be taught by a woman. In 2009, she ran a refreshed women's program and, although she was the only female brigade member present, the women did not seem bothered. Men were needed for the practical activities, and the brigade community educator co-facilitated providing the deeper knowledge of fire behaviour.

The current program is very similar, with one essential difference being that the training is facilitated by women from within the brigade. Two female facilitators now run the training with male brigade members assisting. One of the women has practical bushfirefighting experience while the other has adult education experience.

## Program components

The delivery style varies across the NSW. Some programs are run at a brigade shed or other community centre, with practical fire exercises run outside the venue. Others are run on private property, or a combination of the two by starting in a brigade shed before travelling to a private property to carry out practical exercises.



**Participants experience a fire situation using basic tools to better understand how to cope and prepare for a real situation.**

A variety of methods are used to engage participants. Some use testimonials of previous program participants, videos of women affected by bushfires, or case studies of fires. A primary goal of many programs is that women feel comfortable right from the start, with casual activities at the beginning. This could include placing a marker on their property, which often leads to neighbours meeting each other for the first time, or getting participants to share ideas on different themes on paper pinned up around the room.

The Canyonleigh program includes a component on emotional preparedness which is sometimes missing from other programs. The program uses various methods to communicate the need for emotional preparedness. One simple and effective activity is an exercise where participants dress in their appropriate firefighting clothes and try to carry out activities that form part of their Bushfire Survival Plan – all in extreme heat and darkness (thanks to heaters and block-out blinds). Other distractions are added like loud noises and the sound of an approaching bushfire.

A common element in NSW programs is the teaching of practical skills including using a water pump and putting out spot fires. Training builds on this by getting participants to attempt to put out spot fires with no forewarning and only basic tools. These tools are common household items such as mops, buckets, shovels, toy water pistols, blankets and even small spray bottles and backpack style sprayers. Participants can discuss how they felt being confronted with the spot fire and how hard it was to deal with it. Participants then pair up and try again. The group develops a better understanding of what is involved and what is effective in putting out spot fires.



Participants experience a fire situation using basic tools to better understand how to cope and prepare for a real situation.

The majority of the NSW programs explain the purpose and benefits of a Bushfire Survival Plan. Some training sessions take it further by ensuring each participant takes home a completed (or as near as possible) plan. Other topics that may appear in individual courses include map reading, preparing pets, and vehicle safety.

Several courses follow-up with participants to go over their Bushfire Survival Plan and provide advice about individual property preparation. The follow-up visit helps build local relationships and provides support to participants.

## Results

Residents have said they feel more comfortable approaching their local brigade members for help, making decisions about what to do when a bushfire is in the area, and feel more confident in defending their home. Many realise that they aren't capable of defending their home and make a clear commitment to leave early.

The Canyonleigh Brigade note that:

*"As well as an increase in awareness we have noticed an increase in action. For example, on 8th January 2013 we had a Catastrophic Fire Danger Rating. Women who had done a recent program talked with one another, gave each other support and told each other what they were doing. These women left the area, moved horses – basically followed their Bushfire Survival Plan – with their husbands and children in tow."*

The NSW RFS are developing a consolidated course for women, with input from the South Australia Country Fire Service and their *Firey Women* program that aims to give participants:

- an improved awareness and understanding of their bush fire risk
- a completed Bushfire Survival Plan
- an understanding of the level of psychological preparedness necessary to defend their home
- skills to successfully put out spot fires using several different methods, and
- an increased likelihood to survive a bushfire and the knowledge to better protect their family.

## Further information

NSW Rural Fire Service Community Engagement

Email: [community.engagement@rfs.nsw.gov.au](mailto:community.engagement@rfs.nsw.gov.au).

# practical stories

## Myrtleford Men's Shed

*"I'll just go up to the Men's Shed and have a yarn".*

The Myrtleford Men's Shed was established with the help of Alpine Health just before the 2009 Black Saturday–Mudgegonga Beechworth bushfires affected local communities.

The Men's Shed is located in a building on the Myrtleford Hospital site and supports mature-aged men in the area. The Men's Shed received funding from the Foundation for Rural and Regional Renewal to assist local men through the recovery process.

After the 2009 fires a need was identified for services to support men affected by the fires. In the words of the current Secretary/Treasurer of the shed, Clive Walker, "men were looking for somewhere they could sit down and talk, where somebody would listen without any pressure. Many men wanted to stand in front of the fires and keep their families and property safe. But for many in 2009 they tried but lost.



Image: Clive Walker

"In small country towns after a disaster it can be good to talk to locals who know who you are, what's been happening and who have been through similar experiences.

"A large percentage of the men at the shed have been CFA or SES volunteers, or farmers who have fought fires on their own properties or who have been DSE or council workers involved in fighting and recovering from fires.

"They are men who know what it is like to lose everything or half of everything, and what to do and how to get back on your feet.

"They know what it's like to feel ... *'I don't want to start all over again'* ... and wonder if this is the time to make the hard decisions about getting out.

"It can be equally important to talk to people who are outsiders who you don't ever have to see again—where information shared is kept very confidential.

"Depending on the day and how a man feels, he will want to talk to and cry with an absolute total stranger, or a local friend who will be there for the long haul.

"The 2013 Harrietville fires have reignited talk about fires. The smoke brings back the 2009 experiences and feelings," said Clive.

The Myrtleford Men's Shed continues to be a place where men can get together to talk and listen about fires and anything else that is happening.

### Further information

Myrtleford Men's Shed:

Ph: 03 5752 1361



Image: Clive Walker

**Men's Sheds provide a place for men to meet and share experiences.**

# Gender, masculinity and bushfire: Australia in an international context

Dr Meagan Tyler, Victoria University and Professor Peter Fairbrother, RMIT University offer some reasons as to why a gendered analysis of disaster and emergency management is important and how this applies specifically to bushfire.

*“Emergency management has been, by tradition if not by right, a male prerogative in Australia.” Doone Robertson (1998).*

## ABSTRACT

The study of gender and associated questions about masculinity, femininity and inequality are important elements of social science research. While gender has often been a focus in disciplines such as sociology and anthropology, the social construction of gender is now analysed in areas ranging from criminology to international political economy. Disaster studies, however, adopted the use of gendered analysis quite late, and it was not until the 1990s that a substantial body of literature started to emerge. Since then, there has been a steady increase in international research dealing with the relationship between gender and disaster. Australian research on bushfire is yet to make significant use of the insights from this work. In this paper, we offer some reasons as to why a gendered analysis of disaster and emergency management is important and how this applies specifically to bushfire. We also highlight some of the shortcomings associated with previous attempts at understanding bushfire through a gendered lens and suggest that, in order to move forward, we must acknowledge that constructions of masculinity may affect bushfire preparation and response. <sup>R</sup>

## Introduction

There is little recognition in Australia, in either research or policy, that there are important gendered issues surrounding bushfire. This absence is in sharp contrast to international trends where varying social constructions of gendered norms, behaviours, and

inequalities are, increasingly, being identified and analysed. The aim of this paper is to outline the more important insights from the international literature on gender and disaster and then contrast these with emerging approaches to studying and explaining gender and bushfire in Australia. We argue that it is important to acknowledge the militarised and masculinised nature of emergency services in Australia and how particular constructions of masculinity may impact upon popular conceptions of appropriate actions for men and women during bushfire events.

## International research on gender and disaster

At the outset, it should be noted that the study of gender is not concerned with biological differences between men and women. Gender refers specifically to the “socially learned behaviour and expectations that distinguish masculinity and femininity” (Peterson and Runyan, 1999, p5). For some decades, the social construction of gender has been a focus in disciplines such as sociology and anthropology, with gendered analyses evident in areas ranging from criminology to international political economy. The importance of gender is also recognised in trends towards “gender mainstreaming”, evident in many national and international public policy discourses (Walby, 2005).

Disaster studies adopted the use of gendered analysis quite late. It was not until the late 1990s that the influential collection *The Gendered Terrain of Disaster* (Enarson and Morrow, 1998) was published. Since then, there has been a steady increase in international literature dealing with the relationship between gender (particularly women) and disaster. One of the most obvious ways in which the gendered nature of disaster tends to be recognised, is the heavily male-dominated nature of formal disaster response and emergency services organisations. While women’s actions are an important part of responses to disaster events (the international evidence suggests women’s contributions are crucial to disaster mitigation and recovery) women tend to be largely excluded from official emergency response agencies (Ariyabandu, 2009; Fothergill, 1998; Mishra, 2009; Robertson, 1998).

There are, however, a number of more complex and subtle ways in which disasters have gendered consequences. For instance, there is now substantial evidence to suggest that, globally, women are at greater risk from the effects of disaster than men.

The *Gendered Terrain of Disaster* (Enarson and Morrow, 1998) outlines gendered dimensions to the following nine stages of disaster:

1. Exposure to risk
2. Perception of risk
3. Preparedness behaviour
4. Warning communication and response
5. Physical impacts
6. Psychological impacts
7. Emergency response
8. Recovery
9. Reconstruction

What emerges from this work on gender and disaster is that women are, in a number of different ways, more vulnerable to the effects of disaster than men. Again, this is not thought to be the result of some innate or biological differences between men and women. Rather, these differences are understood as the result of socio-political factors, including gender inequality. Marginalised groups are more likely to suffer from the effects of disaster and women are often disadvantaged because of their social and economic positions in society.

Various gendered social restrictions impact upon women's responses to disaster. For example, women are less likely than their male counterparts to have been taught how to swim. They are also more likely to wear restrictive or inappropriate clothing, because of gendered expectations about dress (Enarson and Chakrabarti, 2009; Enarson and Morrow, 1998). It is therefore not surprising that women are over-represented in deaths from drowning during floods and tsunamis. Indeed, following the Asian tsunami in 2004, women made up as much as 80 per cent of the dead in certain parts of Indonesia, India and Sri Lanka (Ariyabandu, 2009, p11).

In some instances, regardless of the type of natural hazard, women are hampered in their attempts to flee because they are more likely to experience restrictions on their outdoor or public movements (Ariyabandu, 2009; Chakrabarti and Walia, 2009). Women are also more likely to take on care-giving responsibilities for children, the elderly and the infirm, and it has been theorised that these responsibilities often impede a woman's ability to escape imminent danger (Enarson and Morrow, 1998). Internationally, in terms of preparation and communication, women are less likely to be literate and therefore the chances of women being able to read and understand preparedness information are diminished (Enarson and Morrow, 1998).

While factors such as literacy and restrictions on public movement are less likely to impact upon women in secular, (post)industrialised states, there are still important gendered differences relating to social and economic inequality in the developed world. In Japan, for example, single mothers are substantially over-represented in injury and death-toll statistics from earthquakes (Masai, 2009). There are several issues which help to explain why this is the case. First of all, single parents are generally more vulnerable in disasters as there is often only one adult in the household. Second, there are significantly more single mothers than single fathers with care-giving responsibilities, so the risk for women is increased. Third, single mothers tend to have a lower than average income, and in the case of Japan (and numerous other places), single mothers are also socially stigmatised. They therefore tend to live in substandard housing, in poorer parts of cities, and in housing that is ultimately more likely to collapse, and injure or kill them, during an earthquake (Masai, 2009).

There are also substantial gendered differences in disaster preparation and response. One of the most prominent of these discrepancies is women's more common preference for evacuation (Bolin, *et al.*, 1998; Fothergill, 1998; Mozumder, *et al.*, 2008; Scanlon, *et al.*, 1996). The evidence for this difference comes mostly from developed or (post)industrial nations and focuses on instances of floods and earthquakes; of note, this finding is also found in some case study research on forest fire (e.g. Mozumder, 2008). This literature indicates that women are significantly more likely to favour preparation for evacuation, while men are more likely to want to stay in an area of danger (Bolin *et al.*, 1998; Mozumder, *et al.*, 2008; Scanlon, *et al.*, 1996). Women's preference for evacuation during a bushfire threat in Australia has similarly been noted by Proudley (2008), but this has not yet been supported by other studies with extensive data or in-depth research.

## Research on gender and bushfire in Australia

Despite the increasing body of international literature on gender and disaster, there is still only a limited amount of work that mentions gender in the context of bushfire in Australia (e.g. Beaston and McLennan, 2005; Beaston, *et al.*, 2008; Cox, 1998; DeLaine, *et al.*, 2008; Eriksen, *et al.*, 2010; Maleta, 2009; Poiner, 1990; Proudley, 2008). For the most part, gender remains a peripheral rather than central theme in bushfire research. To help rectify this neglect, we draw on research into gender and disaster, as well as literature dealing with masculinity, to propose ways in which insights from these areas may be used to better understand bushfire preparedness and response. The idea is to move beyond simply looking at 'women and bushfire' and to incorporate an analysis of constructions of masculinity as well.

There has been some attempt to make room for 'women's voices' and consider women's experiences of bushfire in Australia (e.g. Cox, 1998) but, until recently, there has been almost no attempt to understand how this relates more broadly to the social construction of gender. In other words, there has been a reluctance to question how gendered roles and understandings of masculinity and femininity put men and women at risk in different ways. A rare exception is work by Eriksen and colleagues (2010) who were responsible for the first peer-reviewed article dealing with bushfire and gender in Australia from a social constructionist perspective. A recent contribution from Goodman and Cottrell (2012) also highlights the importance of gender roles in determining bushfire response. In addition, we have outlined elsewhere (Tyler and Fairbrother, 2013) the need to account for Australian understandings of masculinity in bushfire preparation and response. However, advancing such a critical perspective on gender in bushfire research can prove a challenge.

There is some recognition in Australia of the male-dominated nature of the emergency services. Emergency management has been described by Robertson (1998, p201), for example, as being: "[b]y tradition if not by right, a male prerogative in Australia. Emergency services organisations, so similar in nature and activity to the military, were regarded as very much a male domain." Australia is not unique in this regard and, as Fordham and Ketteridge (1998) point out, many emergency and disaster management organisations around the world have military-based histories and continue to maintain a militaristic, 'command and control' style of operation. This history continues to echo into the present. Recent research into rural fire services has shown that women make up less than a quarter of all rural fire volunteers in Australia and that many are placed in non-operational or supportive and administrative roles (Beaston and McLennan, 2005). Even into the early 2000s, some rural fire brigades did not admit female members (Tyler and Fairbrother, 2013).

### Women and bushfire

To try and rectify this substantial gender imbalance there have been intermittent attempts to recruit more women into rural, volunteer firefighting (Beaston, *et al.*, 2008) and a few isolated bushfire safety programs exist which specifically target women (e.g. DeLaine, *et al.*, 2008). There are, however, problems with both of these approaches.

Firstly, attempts to recruit women into the fire services, even if extremely successful, will not necessarily transform the masculinised construction of firefighting. Organisations have particular cultures, and the history of emergency management organisations as male-dominated has meant that they are seen as masculine institutions. Thus, firefighting has become associated with traditionally masculine attributes, and even if women become part of these organisations, they are largely expected to conform to masculine norms rather than challenge or transform them (Maleta, 2009). Thus, despite more inclusive recruitment practices,

**NSW FIRE BRIGADES**

## WOMEN IN FIREFIGHTING

Working as a firefighter can be a challenging journey, but if you ask Peta Doyle, one of the NSW Fire Brigades up-and-coming firefighters, plenty of women have what it takes to have long and rewarding careers with the NSWFB.

When most people think of firefighters they think of sirens, smoke and pulling people from a burning building, but being a firefighter involves so much more than this. Our firefighters not only manage major emergencies, but they often work in specialist fields and have a strong presence in the community, talking to residents about fire prevention and making communities safer.

With more than 92 full-time female firefighters and 165 part-time female firefighters in its ranks, the NSW Fire Brigades strongly encourages women to consider a career with the NSWFB.

Three years ago, Firefighter Peta Doyle, who is currently stationed at the busiest fire station in Australia, City of Sydney Fire Station, steered her life in a new direction, when she successfully applied for a role as a full-time firefighter after years of training as a professional athlete.

Peta competed at state, national and Olympic trials over the past 12 years, and represented Australia at various World Cup Swimming Championships during her swim career. Peta applied for a firefighting role with the NSWFB because she was attracted to the challenge of working as part of one of the leading fire and rescue organisations in Australia.

"I needed a new challenge in my life and I was craving job satisfaction. Many people told me it was really difficult to get a position with the NSW Fire Brigades, so I saw this as another challenge. I wasn't sure what I wanted to do with my life at that point, but knew I had to be working outdoors, working as part of a team, and helping people."

**“ I needed a new challenge in my life and I was craving job satisfaction. ”**

[www.fire.nsw.gov.au](http://www.fire.nsw.gov.au)

**NSWFB promotional campaign to attract female recruits.**

firefighting remains culturally masculinised and continues to reinforce particular ideas about what constitutes appropriate "masculine" behaviour.

Of equal note is the institutional perception of women's responses to bushfire. This issue is well illustrated by the *Firey Women* program in South Australia. The program consists of four workshops and is ostensibly designed to teach women about bushfire safety and preparedness (DeLaine, *et al.*, 2008). While the first workshop covers the issue of deciding whether to 'stay or go' when bushfire threatens, the second workshop on 'preparing your property' is quite clearly about how to prepare the property if you want to stay during the fire, with topics including: 'creating a defensible space' and 'water supplies'. These workshops were deemed a success by researchers and representatives from the South Australian Country Fire Service (CFS) because while only "39.39% of the participants reported a 'stay and defend' bushfire strategy before the workshops... this increased to 84.84% at the conclusion of workshops" (DeLaine, *et al.*, 2008, p9). The use of these statistics quite clearly shows how, particularly prior to the Black Saturday fires in Victoria in 2009, some agencies equated appropriate bushfire education with a greater number of people taking the decision to 'stay and defend' a house during a fire.

The review of the *Firey Women* program (DeLaine, *et al.*, 2008) inadvertently shows, at least in part, how this misperception may have taken hold. The researchers claim that intervention is necessary to target women because they are likely to have a lack of knowledge

around bushfire. Given the significant lack of women in the firefighting services, such an assertion may be plausible, but the researchers rely primarily on a study by Beringer (2000), who makes unsupported claims about women's lack of bushfire safety knowledge. He states, for example, that:

*"When asked whether they would evacuate if another fire were to threaten, 23% [of residents surveyed] said they would evacuate their home. Of those respondents who would evacuate, 67% were female and 33% were male. The responses from females indicates [sic] that they may have a poor understanding of bushfire behaviour as well as the role of the CFA [Country Fire Authority] and hence may perceive the bushfire to be a greater threat which would lead to a greater likelihood of evacuation"* (Beringer, 2000, p12).

No evidence is presented in support of this statement. Beringer's assumption is that a preference for evacuation indicates a lack of knowledge about bushfire safety.

Such assumptions tend to underpin much of the agency-dominated discussion around bushfire in Australia, although the international conversation is markedly different. International studies on gender and disaster evacuation preference show that women are more likely than men to favour evacuation. In some places this is actually seen as a virtue. Enarson (2009), for example, shows that women's more common preference for evacuation is seen by many emergency agencies overseas as a valuable asset in promoting risk aversion. There is an understanding that a preference for evacuation is less likely to stem from ignorance, and more likely to stem from gendered norms of responsibility (e.g. care-giving).

This understanding, highlighting the social roots of gendered behavioural difference, is further supported by studies on risk perception, which show that the most privileged groups—in particular, wealthy, white men—are much more likely to have low risk perception (Finucane, *et al.*, 2000); while the poor, minority groups, and women are more likely to have high risk perception. Finucane and others (2000) suggest this stems, not from a lack of education, but rather from inequality, different environmental factors, and life experience. Those who are the most privileged tend to experience the least fear in their everyday lives and, as a consequence, may under-rate risks associated with events such as natural disasters.

The suggestion that women prefer evacuation because they are over-concerned or ill-educated about bushfire is not only an unfounded assertion; it may also be a dangerous one. Unlike the trend in disasters internationally, where women are over-represented in death tolls (Enarson and Chakrabarti, 2009), in Australia, more men than women die in bushfires. Indeed, a recent survey of bushfire deaths has shown that almost three times more civilian men than women died in bushfire events in Australia between 1900 and 2008 (Haynes, *et al.*, 2010). Haynes and colleagues (2010) suggest that one of the reasons men may be over-represented in bushfire fatalities is that they are

more likely to 'actively defend a house' during a fire while women are more likely to 'shelter passively'.

Evidence of disagreements between men and women within a household over the best course of action to take during a fire threat also demonstrates that more investigation is needed into women's preference for evacuation (see Goodman and Cottrell, 2012). For example, Professor John Handmer, in his review of fatalities from the Black Saturday fires, submitted the following to the Royal Commission:

*"There is evidence of disagreements as the fire approached. In virtually all cases this was between women who wanted to leave and take the men with them and men who either wanted to stay and defend or who felt they had to support others in that role. In some cases it appears that the difference in opinion was long standing, in other cases it was only acknowledged at the last minute. This led to some people changing their plans at the last minute. This appears particularly the case for couples. There are instances where women who fled under these circumstances survived. Conversely, there is also evidence of such disagreements where males refused to leave, but relatives decided to stay, leading to additional fatalities"* (Handmer, *et al.*, 2010).

Handmer's submission to the Royal Commission and the research by Haynes and others (2010) quite clearly contradict the idea that the best model of bushfire safety is to teach women to adopt a masculinised model of 'stay and defend'. Any education programs promoting this model therefore warrant re-evaluation.

## **Masculinity and bushfire: moving forward**

*"A gender sensitive analysis of bushfires needs to go beyond understanding 'gendered vulnerabilities' and examine how the socially constructed societal expectations of women and men that underpin traditional views of bushfire management as 'men's business' persist today."*  
Christine Eriksen and colleagues (2010).

Part of the problem is that the issue of masculinity is rendered largely invisible in discussions of bushfire. The existing literature on gender and bushfire in Australia, though scarce, has tended to focus on women. There is also an assumption that policy and practice for bushfire response are based on objective and empirical, if not scientific, bases. These approaches have tended to overlook the potential effects of male-dominated and culturally-masculinised emergency management, bushfire response and firefighting (Beaston and McLennan, 2005; Eriksen, *et al.*, 2010; Poiner, 1990; Robertson, 1998). In programs like *Firey Women*, while women are obviously the focus, this is on the basis that they are seen as different and in need of special programs to teach them a 'correct' response to bushfire. Implicitly, it seems that the correct response was taken to be learning how to 'stay and defend'. This suggests that the largely masculinised activity of 'staying to defend'

has, in the past, occasionally slipped into becoming represented as the objective norm.

The focus on women as 'the other', compared to a masculine standard, can sometimes make it difficult to see how existing norms, approaches and policies are inevitably affected in particular ways when formed in heavily male-dominated environments. This process is often referred to in sociological literature as 'the invisibility of masculinity' (e.g. Campbell, *et al.*, 2006; Campbell and Bell, 2000). As Campbell and Bell (2000, p536) explain, masculinity is generally a "generic, unmarked category of power" and, as a result, masculinity remains invisible "while femininity is continually marked for special emphasis." It is therefore imperative that future research into gender and bushfire, and disaster events more generally, makes the social construction of masculinities visible.

The need to consider masculinities is also intertwined with the understanding that gender is relational, that is, gender roles are constructed in relation to each other rather than existing autonomously. Campbell and colleagues (2006) explain this aspect further in the context of rural masculinity by stating that: "rural masculinity is equally an aspect of the lives of men and women...The way rural men conduct their lives has a huge impact on how rural women live their lives, for gender is a relational matter" (p2). It is therefore important to understand the construction of both masculinity and femininity when considering gender and disaster.

We have argued elsewhere (Tyler and Fairbrother, 2012, 2013) that it is now vital to conceptualise and analyse specifically Australian constructions of masculinity in order to better understand individual behaviour with regard to bushfire preparation and response in this country. In particular, it is important to understand Australian constructions of hegemonic masculinity. The concept of hegemonic masculinity (Connell, 1995) is particularly useful as it acknowledges that there are often many ways in which men can be accepted as appropriately masculine, but it also highlights that some constructions of masculinity have more cultural weight than others. Connell (2003) states that hegemonic masculinity is "the most honoured or desired...it is connected with prominent institutions and cultural forms, such as business and sport, and is extensively promoted in the mass media" (p15). Campbell and Bell (2000) expand on Connell's original understanding and state that "[h]egemonic masculinity is therefore the version of masculinity that is considered legitimate, 'natural' or unquestionable..." (p535). The valorisation of particular types of masculinity therefore has consequences for determining what is seen as culturally appropriate behaviour and action.

## Conclusion

It is understood in the international literature that gendered norms and expectations contribute to particular patterns of disaster preparation and response. Bushfires in Australia are no exception to this phenomenon. Given the anomaly of men's over-representation in bushfire fatalities in Australia, it is imperative to consider the social construction of masculinity and, in particular, hegemonic masculinity (Tyler and Fairbrother, 2012). Understanding the gendered dynamics operating around bushfire may, quite literally, be a life or death issue. Since the Royal Commission into the Black Saturday fires, many fire agencies have begun sending out official communications that place a greater emphasis on plans to evacuate or 'leave early'. It must be recognised, however, that these modified messages are being transmitted into an existing cultural environment where 'staying to defend' tends to be valorised and masculinised, and is therefore seen as appropriate, while leaving is often seen as weak, ill-informed and feminised, and is therefore seen as inappropriate (Tyler and Fairbrother, 2013). A modification of the message alone is not enough to create cultural change. In order for models of bushfire preparation and response to be more effective in future, the social construction of masculinity must be taken into account and become a central focus in the development of messages, education programs, and public discussion.

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## Acknowledgements

This paper is based on research funded by the Bushfire Co-operative Research Centre as part of the Effective Communication: Communities and Bushfire project.

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## The Toodyay experience: connecting with men in disaster recovery

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*Ryan Hamblion reflects on some of the lessons learned from the 2009 Toodyay fire recovery.*

On 29 December 2009, a bushfire event occurred in the Toodyay area (approx 50 kilometres north east of Perth). It resulted in one of most damaging bushfires in Western Australia's history.

The fire conditions at the time were some of the worst seen in Western Australia and a Total Fire Ban was declared for the Lower West Inland (including Toodyay) on Monday 28 December 2009.

The terrain in the Toodyay area varies considerably and was significant in not only influencing the fire behaviour and winds, but also the accessibility for fire crews to combat the fire in certain areas.

The Toodyay fire was restricted to the west of the town, located in the far north east part of the Lower West inland fire district. It had started near River Road south of the Avon River and west of Folewood Road. It was eventually brought under control close to the Clackline-Toodyay Road south of the town site.

The fire destroyed a total of 38 homes and approximately 3 000 hectares of land, causing extensive damage estimated at more than \$50 million. No lives were lost and only minor injuries were reported<sup>1</sup>.

Recovery after the fires included a traditional casework and recovery approach; however, this did not seem to be effective for men affected by the fire. Different ways of working had to be developed.

### Considerations

#### Here comes a suit

Experience shows that it is harder for country people to relate to a recovery worker in a suit, as this is often associated with receiving bad news, visiting the 'bank manager' or dealing with the bureaucratic system.

#### Get out there

Committees are all well and good but nothing beats getting out into the community to talk with people – especially men. Meeting people on their property and seeing firsthand what has happened or sitting down for smoko at the pub with recovery workers goes a lot further than sitting in an office expecting people to visit.

#### Provide support in comfortable social places

Providing information and support services through clubs and social places where people are already connected worked well for reaching some affected men.

Places like Men's Sheds, Bowls Clubs and service clubs were good places to leave information and spend time to find out what was going on and who might need support.

#### Confidentiality

Building trust led to people helping to identify who needed support. Trusting the confidentiality of what was said to the worker was a crucial part of making this work. Trust and confidentiality meant being able to identify and support men before a major breakdown occurred.

#### Small, practical steps build trust

Being from a government department can be a barrier to gaining the trust of men affected by a disaster. Providing practical help in small ways such as food vouchers builds trust to work on the bigger issues such as insurance claims. Sorting out practical support means there is a greater chance of introducing emotional supports like counselling. It is important to let men know this doesn't mean lying on a couch and telling someone about innermost secrets. People can find counselling useful and it was not a sign of weakness to accept help.

#### Watch out for survivor guilt

Recovery workers found issues like survivor guilt weighed very heavily on some men. It was important to listen to what members of the community were saying about who might be affected and who might need immediate support. Identifying people to prioritise in relation to offering support was less about houses lost or structural damage.

#### Keep an eye out for your mate

Even when men were not prepared to accept help for themselves they were more often than not ready to keep an eye out for their friends. Many men did not want to talk in depth about how they were doing, but they were interested in knowing how to help their friends. Providing mental health first aid tips about what signs to look out for in the behaviour of their friends worked as a way of reaching men with information about depression and anger. It provided good opportunities to hear more about what men were experiencing.

#### Further information

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## Through Women's Eyes: disaster resilience in the Alpine Shire

On 7 February 2009, a fire began in the Beechworth-Mudgegonga area in north-east Victoria. It burned fiercely until weather conditions moderated and was not contained until 16 February. Two people died, 18 houses were damaged or destroyed, and sheds, farming equipment and stock were destroyed. The fire burnt 33 577 hectares, including about 23 000 hectares of state park<sup>1</sup>.

The *National Strategy for Disaster Resilience*<sup>2</sup> states that the disaster resilience of people and households is significantly increased by active planning and preparation for protecting life and property, based on an awareness of the threats relevant to their locality. It also recognises that disasters and risks do not impact everyone in the same way.

The *Through Women's Eyes: Disaster Resilience* project, undertaken in the Alpine Shire at the start of 2012, aimed to increase community knowledge and skills by focusing on the development of disaster resilience through the eyes of women.

The project involved 31 women aged 16 to 80+ years of age from across the Alpine Shire which is about 300 kilometres north east of Melbourne, on the edge of the Alpine National Park. The women met in small groups during January to May 2012 in the towns of Kancoona, Mt Beauty, Myrtleford and Rosewhite.

The project was facilitated by the Women's Health Goulburn North East<sup>3</sup> and the Alpine Shire and supported by the Foundation for Rural and Regional Renewal.

## Disasters do not impact everyone in the same way

International and Australian research confirms that gender differences are highly relevant before, during and after disasters.

During the sessions, the women's stories showed how disaster events drew people back into traditional 'gender roles'. Men were more likely to be involved in the emergency response at the firefront and 'outside', while women were more likely to be responsible for household preparation and safety 'inside' as well as providing crucial support to firefighters. During the recovery from the bushfires women were more likely to be the people who arranged help for the family or the ones who knew of others needing extra help. Men were more likely to help rebuild physical things and speak up at official meetings.

## Working together

The women involved in the project emphasised that working together was often the key to being resilient. This meant working together defending their family and property, or finding answers to the many and varied problems people had to resolve, or making contributions to the way that emergency services and recovery support providers needed to operate.

This echoes the *National Strategy for Disaster Resilience* which states that a disaster resilient community is one that works together to understand and manage the risks that it confronts.

The project confirmed that women's disaster resilience strengths include:

- being great organisers and caretakers (e.g. being involved in recovery hubs and relief centres)
- making life as normal as possible (using the 'keep calm and carry on' approach)
- being good networkers (e.g. establishing telephone and UHF 'trees' to spread information)
- putting the kids and family first, and
- using existing women's groups and creating new ones when needed (e.g. Country Women's Association and Stitch 'n Bitch).

## Project findings and community report back session

The disaster resilience experiences and ideas women talked about and recommended throughout the project were captured on six posters and presented at the community report back session. These posters are available online at [www.whealth.com.au](http://www.whealth.com.au).

### "He just dealt with it differently"

There were concerns expressed about men being at higher risk as frontline defenders, feeling they didn't have permission to show 'weaknesses' or vulnerabilities or show emotion.

### "OK so I'm normal, so I'm allowed to feel like this"

Outside advice from trusted professionals helped women understand what they and their families were experiencing.

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# The hidden disaster: domestic violence in the aftermath of natural disaster

Debra Parkinson and Claire Zara (Women's Health Goulburn North East) report on the first Australian research to investigate post-disaster domestic violence.

## ABSTRACT

In countries similar to Australia, relationship violence increases in the wake of disasters. New Zealand police reported a 53 per cent rise in domestic violence after the Canterbury earthquake. In the US, studies documented a four-fold increase following two disasters and an astounding 98 per cent increase in physical victimisation of women after Hurricane Katrina, with authors concluding there was compelling evidence that intimate partner violence increased following large-scale disasters (Schumacher, et al., 2010). Yet there is a research gap on why this happens, and how increased violence may relate to disaster experiences. Women's Health Goulburn North East undertook the first Australian research into this phenomenon, previously overlooked in emergency planning and disaster reconstruction. Interviews with 30 women and 47 workers in Victoria after the 2009 Black Saturday bushfires provided evidence of increased domestic violence, even in the absence of sound quantitative data and in a context that silenced women. Community members, police, case managers, trauma psychologists and family violence workers empathised with traumatised and suffering men—men who may have been heroes in the fires—and encouraged women to wait it out. These responses compromise the principle that women and children always have the right to live free from violence. <sup>R</sup>

## Introduction

The possibility of increased domestic violence after natural disaster is largely unexamined in Australia despite Australians having a one-in-six estimated lifetime exposure to natural disaster (McFarlane, 2005). While debate continues as to whether disaster 'causes' domestic violence, there is much evidence of the link

between the two. Through examination of relationships in the aftermath of Black Saturday, this paper provides additional evidence of this link

## Overseas evidence of increased violence after disaster

Studies in developing countries and research conducted over the past decade in the United States and New Zealand confirm that domestic violence increased in those countries in the aftermath of earthquakes, hurricanes and floods. In the US, Enarson (2012), noted a 400 per cent increase in demand for women's shelters after the 1993 Missouri River Flood. After Hurricane Katrina, Anastario, *et al.*, (2009) found a four-fold increase in intimate partner violence. In the first population-based study after Katrina, Schumacher, *et al.*, (2010) reported an astounding 98 per cent increase in physical victimisation of women, concluding "the current study provides compelling evidence that risk of [intimate partner violence] is increased following large-scale disasters" (p601).

Closer to home, New Zealand police reported a 53 per cent increase in callouts to domestic violence incidents over the weekend of the Canterbury earthquake on 4 September 2010 (Houghton, 2010) and after the 2004 Whakatane flood, there was a tripling of workload for domestic violence agencies and a doubling of police callouts (Houghton, 2009).

## Australian evidence

As far back as 1992, there were indications that this phenomenon equally happens in Australia. Such reflections were captured in a 1992 symposium on *Women in Emergencies and Disasters* held in Queensland by the then Bureau of Emergency Services. This was followed in 1994 by a special edition of *The Macedon Digest* where three papers referred to increased domestic violence, one stating, "An increase in domestic violence is repeatedly found in post-disaster situations" (Honeycombe, 1994, p31). In a second article, a social worker wrote that after the 1990 Charleville flood:

*"Human relations were laid bare and the strengths and weaknesses in relationships came more sharply into focus. Thus, socially isolated women became more isolated, domestic violence increased, and the core of relationships with family, friends and spouses were exposed". [Dobson, 1994, p11]*

A third paper citing proceedings from a workshop in Amsterdam in 1988 noted "women's health and security is not only directly affected by the direct impact of the disaster but also by vulnerability of unchecked male violence and aggression" (Van Lendewijk and Shordt, 1988 pp189-192, cited in Williams, 1994, p36) and followed this with a plea to provide domestic violence services after disasters in Queensland.

The intervening two decades in Australian emergency management practice and theory appear to shed no further light on either the link between domestic violence and disaster or practical arrangements and responses. The lack of knowledge was brought into sharp relief after the Black Saturday bushfires in 2009, when no reliable statistics were available to document the effect of the disaster on domestic violence occurrences (Parkinson, *et al.*, 2011). Neither the existing family violence services, Victoria Police, nor the Victorian Bushfire Case Management System could provide conclusive data, confirming the suspicion that few researchers undertake examining gender-based violence in disasters because it is both methodologically and practically difficult to study (Enarson, 2012; Jenkins and Phillips, 2008; Rosborough, *et al.*, 2009).

## Domestic violence after Black Saturday

The magnitude of the Black Saturday bushfires in 2009 was unprecedented since Australian settlement. It caused 173 deaths, injury to 414 people, the destruction of 2 030 houses and subsequent relocation of 7 000 people. The bushfires devastated whole communities, disrupted families and dismantled individual lives. Everything changed for survivors, and turmoil in personal circumstances was reflected at the community level.

*"I hardly recognise the place now. I look around and I don't know what ethos it is we hold on to."* [Community volunteer]

After Black Saturday, there were murmurs of increased domestic violence. It was discussed and reported by health and community workers, recovery authorities and community leaders. Newspaper articles, too, linked domestic violence directly to the bushfires, quoting credible and top-level sources including the Victorian Bushfire Recovery and Reconstruction Authority Chairperson (Bachelard, 10.5.09), a Church leader (Saeed, 26.8.09), and the Clinical Psychologist Consultant to the Victorian Disaster Recovery Plan (M. Johnston and Mickelborough, 2010).

This article reports on the first Australian research to investigate this issue beyond anecdote.

## A note on domestic violence theory

We take the position that domestic violence is gendered and asymmetrical (UN, 1993; VicHealth, 2011)—essentially that domestic violence is men's violence against women, where "women's violence does not equate to men's in terms of frequency, severity, consequences and the victim's sense of safety and well-being" and is often in self-defence or retaliation (Dobash and Dobash, 2004, p324).

The terminology of men's violence to women is manifold, including family violence, domestic violence, relationship violence, intimate partner violence, spousal abuse, wife beating and battery, amongst others. More theory-driven definitions include 'abusive household gender regime' (Morris, 2009), differentiation between 'conflict-driven' and 'control-initiated' (Ellis and Stuckless, 1996, cited in Wangmann, 2011), and Johnson's evolving concepts of patriarchal or intimate terrorism, common couple violence, mutual combat and (mostly for women) violent resistance (Debbonaire, 2008; Gondolf, 2007; Johnson, 1995; Kelly and Johnson, 2008).

Johnson's categories were explicitly conceptualised in an attempt to allow accurate measurement and effective intervention by recognising different dynamics. These were refined in 2008 to 'coercive controlling violence', 'violent resistance', 'situational couple violence', 'separational couple violence', 'separation-instigated violence' and 'mutual violent control' (Kelly and Johnson, 2008). Earlier work saw expanded categories of 'pathological violence' and 'anti-social violence' (Pence and Dasgupta, 2006) and motivations identified as 'within the perpetrator', 'within couple' interactions and in relation to 'potent stressors' (Johnston and Campbell, 1993).

The Duluth Model, too, has been highly influential over two decades, incorporating a 'power and control wheel' and hypothesising that domestic violence is a pattern of coercion, intimidation, isolation, exploitation of children and male privilege and emotionally and financially abusive behaviours (Domestic Abuse Intervention Project, n.d. circa 1993).

A typology of domestic violence, it was thought, would allow more targeted interventions, yet each term and theory is laden with controversy (Wangmann, 2011). Theorists argue on grounds of confounding factors, gender symmetry, type of male perpetrators, the centrality of control, focus on physical violence, severity and impact, the role of men in prevention, and research methodology (Dutton and Corvo, 2007; Flood, 2006; Gondolf, 1988; Gondolf, 2007; Gottman, 2001; Jacobson, *et al.*, 1995; Johnson, 1995; Pease, 2008; Stark, 2006, 2010; Wangmann, 2011). On-the-ground practitioners, too, theorise on what is 'real' domestic violence. When presented with evidence from this research, local domestic violence professionals and men's health professionals questioned where it fitted on the continuum (Frye, *et al.*, 2006).

*“You have to ask, what is behind family violence? If it’s a traumatic state of mind, that would determine how it would be dealt with rather than labelling the behaviour as abusive ... You may find workers have changed their definition of family violence to accommodate the emotional and psychological conditions people are experiencing.”* (Counsellor)

As domestic violence practitioners, as trauma (or any other kind of) counsellors, as police, or as researchers, it is imperative to note there is no watering down of domestic violence after disaster, either because it was a one-off event or because the perpetrator had a diagnosis of Post-Traumatic Stress Disorder. Yet this is exactly what practitioners in the field after disaster grapple with. Johnson wrote, “Yes, all family violence is abhorrent, but not all family violence is the same” (1995, p293) noting that family counsellors will be more effective if they “work with a set of interpretive frameworks rather than with a single-minded assumption that every case of violence fits the same pattern” (1995, p292).

Acceptance of the difficulties involved for women reporting violence against them by their partner (the man they love and who is supposed to love them) is imperative to recognising and supporting victims. Violence against women is an abuse of human rights (AusAID Office of Development Effectiveness, 2008; Bunch, 1990; Libal and Parekh, 2009; UN, 1993) and this includes in a post-disaster context where men may be suffering.

## Methodology

As the areas worst affected by Black Saturday fell within the shires of Mitchell and Murrindindi in Victoria, interviews were held with the 30 women and 47 workers in these shires. Women were recruited through advertisements in newspapers, flyers placed in key community areas and through word of mouth. Worker interviews were conducted both individually and in focus groups. There were 38 women and nine men from the health and community sector, churches, local and State government, the Victorian Bushfire Reconstruction and Recovery Authority, community recovery and case management. Levels of responsibility spanned statewide managers to volunteers. Interviews were digitally-recorded, transcribed, analysed inductively, using modified Grounded Theory (Glaser and Strauss, 1967; Sandelowski, 2000, 2010). NVivo V.9 and V.10 were used to assist qualitative analysis. Two researchers attended the interviews and focus groups. Ethics approval was granted from two human research ethics committees (HREC) being Monash University HREC and North East Health HREC.

This research examined the link between disaster and increased violence against women in the Australian context and documented women’s experiences to contribute to a new knowledge-base and inform post-disaster recovery.

The findings are unmistakable—domestic violence increased after this disaster. Most workers and all 30 women spoke of increased community or domestic violence.

*“There are so many people who are being affected after the fires with domestic violence, and so many women who aren’t able to seek help.”* (Kate<sup>1</sup>)

*“One girl, I ran into her, I think it was between Christmas and New Year, and she had a big black eye ... just a girl I knew whose husband works with [mine] sometimes.”* (Tess)

*“I have women coming here who have been abused physically, and my friend — they’ve been married 20 years and he assaulted her and she had to get a restraining order on him.”* (Di)

In all, 17 women spoke of being personally and badly affected. Nine of these 17 relationships experienced no violence before the fires and seven of these women spoke of settled and happy relationships prior to February 2009.

*“It’s like I’m seeing this side of him that I never knew existed ... it’s almost like a 360, this person you’ve gone from loving, you start thinking, ‘I don’t even know who you are mate.’”* (Gaye)

*“I really don’t know what’s going on with my husband except that the person I married has disappeared.”* (Michelle)

## Explanations for increased domestic violence after disasters

There were immense pressures on everyone who survived the fires as they tried to re-establish their lives. Homelessness, unemployment and increased alcohol and drug-use were noted by participants as characteristic of the recovery period. Disasters are traumatic experiences, challenging sense of self and the safety of our world. Grief and loss accompany intense disasters, necessarily co-existing with the financial and bureaucratic demands of the recovery and reconstruction phase. Increased contact between family members—often in cramped or shared accommodation—can increase tension.

The Black Saturday fires made it impossible for men to live up to society’s demands of their masculinity. Containing fireballs and controlling flames over 40 metres high was beyond human capacity. If men felt inadequate in these conditions, it underlines the flawed social construction of gender that expects men to have a particular set of characteristics simply because they are men. In everyday life, men embody different types of ‘masculinities’ and ‘practices’ (Pease and Pringle, 2001)—as in disaster. Despite the evidence, such loss of control threatened the male provider and protector role (Phillips, *et al.*, 2009).

1. False names used throughout paper.

*"I am a man, and I can do' has been defeated in so many men. Things they couldn't do and they couldn't be and so much was lost."* (Madeline)

Some of the women had partners who were firefighters at the front line of an unprecedented disaster. Their training would not have been adequate preparation for what they faced, and the sight of so many injured and burned people. The stress of that day and the following weeks of high alert is unimaginable to those who were not there.

*"They are the professional firefighters; it was their job to stop the unstoppable. They bear the grief and the loss and the guilt and they had all those people die, and we knew them all... they feel that they were the professionals, they feel like it was their job to stop it, they feel they failed, and they feel their friends died because of it and I could see him reliving those moments, where he could have done something differently and saved a life."* (Emma)

Enarson and Phillips (2008, p51) wrote that from Peru to Alaska, men cope using alcohol abuse and aggression. Austin (2008), another US researcher, identified a form of hyper-masculinity resulting from stress and loss and leading to discord and violence in relationships:

*"Men are likely to have a feeling of inadequacy because they are unable to live up to the expectations of their socially-constructed gender role ... The presence of these conditions unfortunately influence higher numbers of partnered, heterosexual men to act in violent and abusive ways toward the women in their lives."* (Austin, 2008).

This behaviour coincides with a community attitude that empathises and excuses. In a 2006 report on Australian attitudes to violence against women, a large proportion of the community believed that "domestic violence can be excused if it results from temporary anger or results in genuine regret" (Taylor and Mouzos, 2006).

*"It was that enmeshment in community of, 'They are the good guys who helped out with the fire' even though things might be happening [like family violence]."* (Social worker)

*"There was violence against [one woman] ... I was astonished when I learned of this particular instance ... I thought how odd that I didn't know about this, even within my own team. People were being very, very discreet because her husband was very prominent and a bit of a hero in the town."* (Government worker)

Such violence may even be seen as legitimate, and excused because this is "the way men behave" (Atkinson, 2002, p4). Our empathy in normal circumstances is even deeper when we perceive that men are suffering. Tolerance of bad behaviour, through to violence, seemed to increase as men were said to be acting "out of character".

*"I think everyone put up with stuff they never normally would have put up with. I know a lot of the call outs to the local police in the first 12 months weren't reported ... Everyone was just looking after each other and they all knew it was the fire impact."* (Libby)

*"At what point do you go, 'I'm sorry but your behaviour is bad and I'm pointing it out to you', instead of going, 'Let's not say anything 'cos he'll get upset.'"* (Angela)

## Silencing

In the immediate aftermath of disasters, 'community' as an entity is reified in the strong glare of media attention. The attention of the whole country is momentarily focussed on previously anonymous communities, and help pours in from government, churches and the health and community sectors. Although this community bonding is followed by cleavage (Borrell, 2011) media coverage is focused on resilience and the great national spirit and the generosity of others (Enarson, 2012).

There was enormous pressure from family members, friends, police and even health professionals to deny or forgive men's violence. Women spoke of seeking help from family, only to be ignored, accused of over-reacting, and blamed for not caring well enough for their men. They told of inadequate response from health professionals and inappropriate referrals. Some women were effectively stopped from seeking support by the person they confided in. Women reported an expectation from some professionals that women would be silent about it for the greater good. One health professional said:

*"So much has been justified as a result of the fires ... so much has been fobbed off. So many women have gone to police and been told by police, 'Things will settle down again'. The responsibility is back on the women."* (Case manager)

As in other disasters (Jenkins and Phillips, 2008), domestic violence after disaster was seen to have little to do with recovery and reconstruction. The focus on practical recovery, grief and loss, together with sympathy for traumatised, suffering and suicidal men prevented willingness to hear about domestic violence. Ultimately, some women gave up. One woman, after finishing the interview, said, "I'll get out of here in a box", revealing both her level of surrender and the danger she was in.

## Relevance of domestic violence to emergency planning and response

The risk posed by natural disaster is greater for women in situations of existing domestic violence. Disaster itself can trigger an increase in the severity of existing violence and violence that is new. In existing situations, women's preparation and evacuation strategies may be limited by concessions to controlling partners or, more directly, by lack of options, such as not having access to a vehicle.

## CHECKLISTS TO KEEP WOMEN AND CHILDREN SAFE AFTER NATURAL DISASTERS

Women's experiences during the Victorian Black Saturday bushfires were researched by Women's Health Goulburn North East (late 2009 to 2011). This research provided new insights about how to keep women and children safer during disasters.

**CHECKLIST FOR**

**DISASTER PREVENTION AGENCIES RESPONSIBLE FOR THE ELIMINATION OR REDUCTION OF THE INCIDENCE OR SEVERITY OF EMERGENCIES AND THE MITIGATION OF THEIR EFFECTS**

(Ambulance Victoria, Aust. Attorney General's Dept., Red Cross - RedPlan, Building Commission, SOM, OMA, Coroners Court, CFA, DEECD, DPE, DHS, DFR, DSE, DDI, Emergency Resilience, EnergySafe, DM, Life Saving Victoria, MHR, Volunteer Councils, DDC, DPC, ParksVic, St John's, Vic Roads, VicPol, SES, WorkSafe)

3 See full report, 'The Way We Talk It' at [www.health.wa.gov.au/emergencymanagement](http://www.health.wa.gov.au/emergencymanagement)

4 From Emergency Management Manual Volume 7, Part 7 (2010) <http://www.emm.vic.gov.au/emergencymanual>



**WOMEN'S HEALTH  
GOULBURN NORTH EAST**

WOMEN AND DISASTER  
SNAPSHOT 4

- Educate disaster-prone communities about the probable health effects of disaster before a disaster occurs. Include the possible exacerbation of previous traumas
- Tailor Mental Health First-Aid courses to include disaster trauma and the probability of increased family violence, and provide them annually to communities in disaster-prone areas
- Develop strategies to prevent and respond to family violence in your community after a disaster
- Establish methods for compiling accurate statistics on family violence, e.g.
  - Prioritise the inclusion of a 'family violence' tick-box in data collection forms so it is not hidden beneath other presenting issues
  - Review Victoria Police Code of Practice for the Investigation of Family Violence to ensure accurate recording of family violence after disasters
- In policies and in response measures such as case management, include women and children as 'vulnerable' groups
- Establish a National Preferred Provider Register to list disaster trauma practitioners who have a sound understanding of family violence

- Increase long-term funding for family violence services in communities affected by disaster
- Police to establish a new position of Disaster Liaison Officer with expertise in the dynamics of disaster and family violence and with a designated role in disaster recovery meetings
- Police to investigate ways to ensure the safety of women, children and communities, whilst being aware of the pressures on disaster survivors
- Establish National Disaster Guidelines that:
  - ensure accurate family violence statistics are recorded by all personnel responding to disaster e.g. health & community services and police
  - state the need for relationship and family counselling in the immediate aftermath of a disaster and on a long-term ongoing basis
- Recognise that the way men and women act is often the result of social conditioning and these gendered roles can leave women at a disadvantage both during and after disasters
- Before, during and after disasters, challenge expectations that men will behave in a defined 'masculine' way – encourage expression of emotion

The Women's Health Goulburn North East website has a series of publications about women and disaster titled Snapshot 1 – 4.

Where women and children have left violent men, their new visibility and potentially shared emergency accommodation may expose them to unavoidable contact with an abusive ex-partner. Sometimes, in disaster situations, women may have no choice but to rely on abusive partners to keep themselves and their children housed and relatively safe (Fothergill, 1999; Fothergill, 2008; Houghton, 2009; Jenkins and Phillips, 2008; Phillips, *et al.*, 2009). Lack of awareness of increased vulnerability to domestic violence after disaster by the community and emergency managers endangers women (Enarson, 1999; Fothergill, 2008; Phillips, *et al.*, 2009; Wilson, *et al.*, 1998). An Australian domestic violence crisis line worker is still haunted by the memory of a call she received from a woman the night before Black Saturday.

*"I received a call from a woman at around three in the morning. She told me the history of abuse from her partner – it is honestly, abuse that is much too gruesome and personal to repeat here ... Then she told me that people in her town were enacting their bushfire plans because it was a bushfire region. She said that her plan was always to leave early, but tonight, after abusing her, her partner took the keys to the car and said, "I hope there IS a bushfire tomorrow and I hope you die in it." And then he took the car and left. She had no other plan for getting away" (Cooper, 2012).*

### An important role for emergency management

Emergency management can play a part in preventing domestic violence after disaster by attending to it in planning, response and recovery stages. While the emergency stage after disasters necessarily attends to primary needs of food, water and shelter, the recovery and reconstruction stages include services for grief and loss. This happened after the 2009 bushfires, as counsellors and case-managers, 'thick on the ground' in many fire-affected communities, attended to individual psycho-social needs. However, this research highlights that domestic violence was not recognised as a legitimate issue in the post-disaster reconstruction period.

### What needs to be done?

Federal, State and local governments need to establish disaster guidelines that include attention to domestic violence as a priority in the aftermath of disasters. Response and prevention strategies must include the involvement of domestic violence services and women. Accurate domestic violence statistics must be recorded by all personnel responding to disaster, such as health and community services and police. Actions by governments would include training in domestic violence identification and referral for all human services

personnel involved in disaster response (such as that developed by WHGNE). In the aftermath of disasters, provision of mandatory family counselling could prevent family violence emerging at a later stage. This could most easily be arranged for emergency services workers. While this is clearly a controversial topic (Drury, *et al.*, 2012; Forbes, *et al.*, 2007; Forbes, *et al.*, 2010; Hobfoll, *et al.*, 2007), research participants pointed to the stigma and potential consequences involved in asking or volunteering for counselling offered by their emergency services employer. For example, they may fear having responsibilities removed from their role, or being passed over for promotion.

Additionally, in regard to police response, Victoria Police have a strong history over the past decade in turning around attitudes to domestic violence and breaking down the barriers to women reporting. The same task is required in a post-disaster context, when all the reasons women are reluctant to report are magnified.

## Conclusion

These are unwelcome findings. We accept that violence against women increased after earthquakes in Haiti and cyclones in Bangladesh, but nobody wants to hear that men who embody the spirit of resilient and heroic Australia are violent towards their families. The aftermath of Black Saturday presents Australians with the opportunity to see how deeply embedded male privilege is, and how fragile are attempts to criminalise domestic violence. The magnitude of Black Saturday

and the depth of men's suffering obscured women's and children's rights to live free from violence, as family and community members, police and health professionals sometimes silenced women. It seemed that two decades of increased understanding of the dynamics of domestic violence by both police and the broader community was lost in this disaster's aftermath.

## Further reading

[www.whealth.com.au/environmentaljustice](http://www.whealth.com.au/environmentaljustice) or  
[www.whin.org.au/environmentaljustice](http://www.whin.org.au/environmentaljustice).

Resources on the websites include the Postcard and Snapshots, and recommendations for agencies involved in disaster prevention, response and recovery.

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# disaster is no excuse for family violence

You can help in just **4** steps:

1. **ASK:** Are you safe at home?
2. **NAME IT:** What you've just described to me is violence and it's a crime.
3. **RESPOND:** Give contact details of the local Domestic Violence Service, CASA and Victoria Police
4. **FOLLOW UP:** 'Last time you spoke about your safety. I'd like to know how you are now.'

[www.whealth.com.au/environmentaljustice](http://www.whealth.com.au/environmentaljustice)



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*Challenging inequality, embracing diversity.*

### Women's Domestic Violence Crisis Service of Victoria

24hr support, information or referral to safe accommodation (refuge)  
(03) 9322 3555 or 1800 015 188 (toll free for country users)  
[www.dvirc.org.au](http://www.dvirc.org.au)

### CASA – Centres Against Sexual Assault

1800 806 292 (all hours) or (03) 5722 2203 for STD area residents  
[www.casa.org.au](http://www.casa.org.au)

### Victoria Police 000

### Victims of Crime Support Line

Telephone information, support and referral for victims of crime  
8am–11pm, Monday to Friday 1800 819 817 (toll free)  
[www.justice.vic.gov.au/victimsofcrime](http://www.justice.vic.gov.au/victimsofcrime)

### Men's Referral Service (03) 9428 2899 or 1800 065 973 (toll free)

9am–9pm Monday to Friday  
[www.mrs.org.au](http://www.mrs.org.au)

(Adapted from 'Raped by a Partner')

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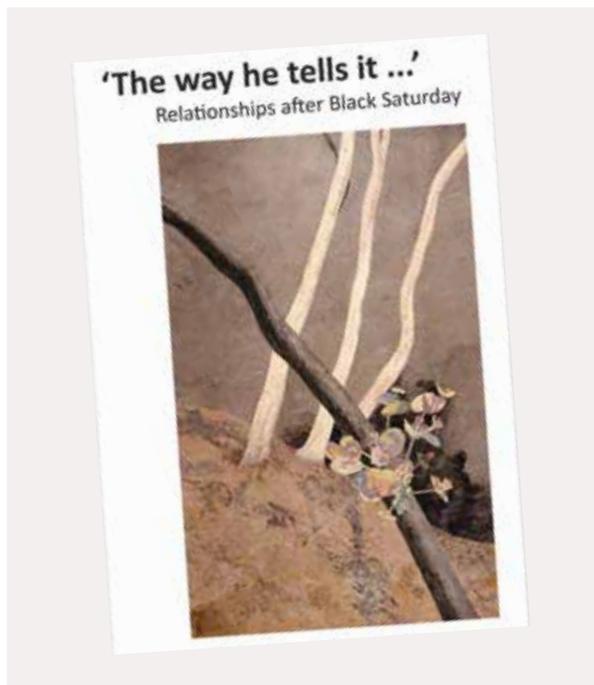
**Claire Zara** is researcher with Women's Health Goulburn North East. Her background is in journalism, teaching and research. She worked extensively with women and workers on this bushfire report and is a PhD student at the Monash Injury Research Institute.

## Family violence after natural disaster training

Claire Zara provides an update on what may be Australia's first family violence after disaster training.

A workshop with flood recovery workers in Victoria's regional north east was commissioned by the Department of Human Services and developed in response to new findings on family violence following the 2009 Victorian bushfires. The training reflects international and national evidence indicating that men and women experience disasters differently, and have different risk factors for survival and recovery.

The recent research report *'The way he tells it: relationships after Black Saturday'* (Parkinson 2012) showed that family violence increased for some women, while for others, it was a new and shocking experience in the wake of the bushfires.



**This report is organised into four volumes.**

**Volume 1 – background, methodology, executive summary, recommendations and appendices.**

**Volume 2 – international literature review.**

**Volumes 3 and 4 – expansion of points made in the executive summary and further evidence.**

## Barriers to getting help

Family violence is often difficult for women to disclose at any time. This is more so in rural areas where it can become 'common knowledge' and everyone's business. After a disaster it can be even more

difficult for a woman to disclose because the man who is now harming himself and his family may have been a hero during the disaster or may be acting uncharacteristically – 'not like himself'.

Women experiencing family violence after the bushfires told researchers they believed others were 'worse off' and they felt 'disloyal' to their partners who had been through the terrible experience. One woman said it took her months to realise that she, too, had been through the same experience.

The research found that women's reluctance to seek help was exacerbated by service providers, including family violence workers, police and trauma psychologists. These workers appeared more sympathetic to men and excused their behaviour, labelling it 'stress' or 'trauma'. Women who sought help for their partner's violent behaviour were often shunted from one agency or case worker to the next. After describing how she had given up with the system, one woman told researchers: *'I'll get out of here in a box'*.

## Show me the data

Reluctance by professionals to name dangerous and damaging behaviour as family violence has severe consequences. For some women, not getting the help they or their partner needed, compounded the violence and forced them to remain unsafe. For the family violence service sector and the community, it meant having no realistic data on incidents of family violence following a disaster. Workers reported that they were 'respecting the wishes' of the client by interpreting incidents and situations in a way the client preferred. This effectively meant not naming or recording family violence. Some women who went to the police were not helped and their complaints also not recorded. The Victoria Police have recognised this situation and responded positively by introducing family violence training for all new recruits.

Parkinson, *et al.*, (2011) write that "Teasing out the number of responses and even making 'guesstimates' about family violence and bushfire trauma was complex due to staff data-recording practices and inadequate data ... a common practice was to code 'relationships issues' rather than family violence."

Without data to show the true extent of family violence post disaster, building a case for funding to support men, women and workers in the aftermath of disaster is fraught. As of 2013, the Victorian Department of Human Services in the Hume region have adopted a quarterly reporting mechanism for family violence post disaster. This regular reporting will provide a more accurate picture of family violence in the aftermath of disasters.

## More work or better work?

This important issue is addressed in the training, which skills workers to appropriately respond when the issue of family violence arises, and to be sensitive to their own observations. It enables them to ask the essential, and often unasked, question: Are you safe at home? and to be able to follow up through referrals and an appropriate recording process.

Trainers from Women’s Health Goulburn North East stressed that this new information does not increase the workload of emergency services workers nor does it assume they will take on the role of family violence workers. It equips workers with the knowledge of when and where to refer clients, friends or community members who need help. Correctly assessing the situation by asking the important questions can ensure that help is delivered early, preventing escalation of the behaviour and the need for further service intervention at a later time.



**Participants at the first Family Violence and Natural Disasters workshop – Moira Shire, Victoria, 2012.**

## How family violence after disaster is different

While Common Risk Assessment Framework (CRAF) training in identifying family violence is familiar to the family violence sector, this new training addresses a specific set of factors that are present post disaster. The audience, too, differs from the usual participants who have direct experience of clients presenting with family violence issues. These workers, ideally case managers, council employees, Red Cross or other agency volunteers and recovery workers, who may not have previously viewed family violence response as part of their role.

There are different circumstances following disasters and this specialist training adds new knowledge and awareness to the CRAF training. Post disaster, women may not be able to articulate a need for help or that they are experiencing violence or abuse from a partner.

Support workers from all sectors must be alert to the possibility of empathetic responses to men that may override evidence of family violence.

Environmental and social factors are drastically altered following a disaster. These present specific triggers that can lead to family violence as a first incident or as an escalation of previous violence. Triggers can include unemployment, temporary housing arrangements, trauma, rebuilding, media attention, grant entitlements, increased drug and alcohol use, and increased risky or ‘hyper masculine’ behaviours. Recognising that these triggers, while understandable, do not excuse violence or abusive behaviour, and that women and children have a right to safety at all times.

## Keeping families safe

Increasing the knowledge and confidence of workers to identify and respond to families experiencing violence in the aftermath of a disaster is a paramount consideration in the recovery of individuals, families and communities. The awareness that ‘safety’ is more than surviving the immediate disaster will assist disaster recovery and help minimise further trauma on families.

**Further information**

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## Gender in emergency management policy

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The Municipal Association of Victoria (MAV) is developing a gender in emergency management strategy which aims to reduce the negative consequences of gender-blind practices.

Evidence shows that the incidence of family violence increases post-disaster. Men are more likely to die in floods and bushfires than women and men strongly influence family decisions to stay and defend homes during bushfires, sometimes with tragic results. To positively affect such outcomes, the influence of gender roles and differences must be understood and addressed.

The MAV's strategy will help councils improve their understanding of gender differences and incorporate gender considerations into their emergency management policy, planning, decision making and service delivery. As a first step a fact sheet is being developed to raise awareness of how gender and emergency management interact, and to provide practical advice to help councils make this interaction positive.

## Local government's role in emergency management

Local government plays an important role in emergency management, both in partnership with others, and through its own legislated emergency management obligations. Councils are not emergency response agencies, however they currently have the following roles:

- developing emergency management plans
- undertaking mitigation activities
- communicating with, and providing information to, communities
- providing support to response agencies
- co-ordinating relief and recovery for the community, and
- ensuring business continuity.

## Why is gender relevant to emergency management?

Women and men experience disasters differently. Gendered roles such as caring for children and the elderly or knowing how to operate a generator, water pump or communication radio network affects how women and men will experience and recover from natural disasters. Gender often shapes how people perceive what is risky, who makes decisions and how we get support or help following disasters. Ignoring or being blind to these different needs can have serious implications for the protection and recovery of people caught up in crises.

Addressing gender issues in emergency management will result in more resilient and equitable communities that are stronger in the face of disaster.

## Benefits of integrating gender into emergency management

Emergency management is more effective when based on an understanding of the different needs, vulnerabilities, interests, points of view, capacities, contributions and coping strategies of women and men of all ages before, during and after disaster. All people benefit when gender issues are addressed in times of disaster.

Integrating gender into emergency management decision-making, policy development and service delivery will contribute to:

- better targeting of council resources
- increased understanding of support and services by community members
- reduced incidents of domestic violence
- reduced levels of risk taking during and after an emergency
- greater community participation and equality, and
- increased social, economic and community resilience.

## How can local government take gender into account in emergency management?

### Emergency management committees and decision-making processes

- Include gender specific organisations and groups.
- Develop a pre-disaster action plan with a contact list of gender specific support organisations.
- Address gender inequities in representation.

### Relief centres

- Ensure there is a safe space for women and children e.g. consider breastfeeding needs or managing violent relationships.

### Communication

- Tailor disaster risk and recovery information for women and men when needed e.g. the likelihood of increased incidents of family violence, risky behaviour in floods and deciding when to leave during a bushfire incident.
- Take notice of who attends community meetings and make it easier for women and men to participate e.g. to hear advice and provide points of view.

### Policies and plans

- Understand the make-up of the community when developing policy and plans by using gender disaggregated data.

- Involve women and men, boys and girls in identifying and addressing local hazards.
- Take into account different needs and capacities of women and men, girls and boys.
- Identify groups of women and men who may be particularly vulnerable in the community.
- Ensure disaster recovery packages are gender equitable e.g. support women's and men's employment.

### **Evaluation and performance measures**

- Ask questions about whether and how gender is considered in emergency management policies, plans, activities and the use of resources.
- Analyse results data by gender.
- Include a gender focus in research.

### **Volunteers**

- Recognise how gender stereotyping affects the development and sustainability of emergency management volunteer groups.
- Partner with existing women's and men's groups as the networks and expertise may already exist.
- Extend the volunteer opportunities and roles available to women, men, girls and boys.

### **Programs**

- Ensure support is available in ways that men and women will find useful.
- Provide women-friendly and men-friendly activities and outreach services.
- Provide mental health and family violence information in formats and places where women and men already meet and support each other.

## **Local government activities**

### **Family violence and natural disasters training**

Research shows that family violence increases during and after disaster. Victorian local government areas affected by floods in 2011—Moira, Shepparton and Wellington—have improved the knowledge and skills of local disaster recovery workers to recognise and effectively respond to family violence. This has been achieved by providing family violence and natural disasters pilot training.

Disaster recovery staff who support communities post-disaster can undertake Common Risk Assessment Family Violence training—free until the end of 2013 ([www.dvrcv.org.au/training](http://www.dvrcv.org.au/training)) or Family Violence and Natural Disasters training ([www.whealth.com.au](http://www.whealth.com.au)).

### **Through Women's Eyes: disaster resilience project**

The Alpine Shire partnered with Women's Health Goulburn North East in early 2012 to bring together 31 women from 16 to 80+ years of age from across the Shire to identify how disaster resilience can be improved. Women met in small groups in Kancoona, Mt Beauty, Myrtleford and Rosewhite to identify the

strengths of women and the different ways men are affected during and after disasters. The project was supported by the Foundation for Rural and Regional Renewal. Project findings are available at [www.whealth.com.au](http://www.whealth.com.au) in the form of videos, posters and information sheets.

### **Evenings with Rob Gordon**

People affected by disaster have been helped to understand how they, their families and friends may be feeling and responding through information sessions provided by local government disaster recovery programs. Psychologist, Dr Rob Gordon, provided information about the dynamics of communities after traumatic events such as bushfires and floods.

Feedback from people attending these sessions identified that the style of information delivery was particularly useful to men. The sessions were informative and matter of fact and offered new 'words' (e.g. 'fire brain') and ways to understand what people experience and feel in the wake of disasters. Information was also provided about ways people can help each other and find the support available when it all gets too much. Information about managing emotions in emergencies is at [www.dhs.vic.gov.au/emergency](http://www.dhs.vic.gov.au/emergency).

### **MAV gender in emergency management strategy**

The MAV recognises that gender is important and is developing a strategy to improve emergency management in local government and reduce the negative consequences of gender-blind practices. The strategy aims to ensure gender differences are considered and incorporated into emergency management policy, planning, decision-making and service delivery.

### **Further information**

Web: [www.mav.asn.au/policy-services/emergency-management](http://www.mav.asn.au/policy-services/emergency-management)

Email: [emergencymgt@mav.asn.au](mailto:emergencymgt@mav.asn.au).

# Gender and disaster recovery: strategic issues and action in Australia

Tricia Hazeleger examines gendered disaster recovery issues relevant to Australian policy and planning and provides a basis for strategic directions to enhance disaster recovery.

## ABSTRACT

Disasters do not impact everyone in the same way. A better understanding of the diversity of needs, strengths and vulnerabilities within communities is considered crucial to building the nation's disaster resilience (Council of Australian Governments, 2011, p2). Gender is a central organising principle of society. It is a key factor in understanding diversity and effectively responding to needs and harnessing strengths in disaster recovery. <sup>R</sup>

## Introduction

Disaster and recovery are not gender neutral. The way we prepare for disasters, respond to disasters and recover from disasters is shaped by physical and socio-economic dimensions of being female or male. Gender-focused research and reports across the world provide strong evidence that women and men are affected differently by natural disaster (Alston, 2011; Dhunghel and Ohja, 2012; Enarson, 2012; Enarson and Meyereles, 2004; Eriksen, 2010; Ciampi, *et al.*, 2011; Morrow and Phillips 1999; O'Gorman and Clifton-Everest 2009; Pincha, 2008; Yonder, *et al.*, 2005.)

This paper examines gender in disaster recovery policy, planning and practice in Australia and raises a number of critical issues and strategic directions as a basis for future action. These were identified as a result of the *Improving Women's Health – before, during and after disasters* program (Women's Health Goulburn North East, 2012) and the *Gender and Emergency Management (GEM)* project initiated and supported by the Victorian Health and Human Services Emergency Management Branch as part of the National Community Services – Disaster Recovery Sub Committee work plan. The first stage of the GEM project began with the development of a national approach to gender in emergency management, with a broad focus on recovery.

## Global evidence of the gendered nature of disasters

Women's and men's decisions in times of crisis have been shown to differ along risk-taking lines, use and type of coping strategies, adaptability, and advice-taking and information-seeking behaviours (Dankelman, 2008). Research has also highlighted gender factors in sustaining volunteer memberships of rural bushfire brigades (Beatson, *et al.*, 2008), the preparedness of women to make informed decisions during bushfire events (Proudley, 2008), and the importance of gender relations within families and communities in dealing with natural hazards such as bushfire, drought, or flooding (Alston, 2009; Enarson, 2012; Cottrell, 2006).

Preliminary Australian research into family violence during and after the bushfires has reflected international research regarding increases in violence against women during and after disasters (Parkinson, 2012; Whittenbury, 2012). Consequently this must be considered a key factor when assessing gendered differentiation. Thus the way gender is constructed in a society must shape disaster planning and management from risk reduction policy and practices through emergency response and to post-disaster recovery and reconstruction (Enarson and Meyereles, 2004). The many other individual and social dimensions i.e. race, age, (dis)ability, socio-economic status, that intersect (Davis, 2008; David and Enarson, 2012; Enarson and Fordham, 2011) with gender to shape people's experience of everyday life and disasters are not a focus of this introductory paper and require further exploration.

The importance of gender as a cross-cutting issue in disasters has been highlighted in International and Australian Government statements. The *Hyogo Framework for Action 2005-2015 – Summary* (UN Office for Disaster Risk Reduction, 2005, p26) identifies 'a gender perspective and cultural diversity' as one of four cross-cutting issues relevant to all agreed priorities for action. This is taken up in the *Australia: National progress report on the implementation of the Hyogo Framework for Action (2011-2013) – interim* that provides:

- information on the participation of women's organisations
- measures taken to address gender-based issues in recovery
- plans and programs developed with gender sensitivities, and
- post disaster needs assessment methodologies and gender perspectives on risk reduction and recovery [Attorney-General's Department, 2012, p15, 18, 40, 49, 52].

Demonstrating the regional acceptance of gender as a significant issue in disaster planning, a gender statement was endorsed at the *5th Asian Ministerial Conference on Disaster Risk Reduction*, to which Australia is a party. This statement recognises that gender relations in a society determine the manner in which men and women are affected by, and deal with, disasters and climate change. The statement acknowledges that although women are active in all stages of a disaster, they continue to be regarded as passive victims and their roles and capacities in building resilience in communities are not recognised. Gender relations are also acknowledged as offering advantages to men in general; however men too, are recognised as vulnerable in different ways before, during and after disasters. The gender statement includes commitments to support national and local capacity development for gender responsive disaster risk reduction and gender inclusive development planning.

## Australian disaster recovery planning

Despite evidence that gender is a factor in disaster vulnerabilities and strengths, and recognition at international, regional and Australian policy levels, Australian state and territory and national emergency recovery plans reveal a pervasive gender-blindness. A scan in November 2012 of Australian national, state and territory government emergency recovery policy and planning documents using the terms female, male, women and men, showed that nine out of the 12 documents reviewed made no mention of gender. Eight state and territory recovery plans or guidelines<sup>1</sup> and four key national recovery and resilience policy and practice documents<sup>2</sup> were reviewed. Where gender was mentioned, it was generally identified as an overarching factor without further analysis or strategy development. In comparison, the majority of emergency management policy documents scanned mentioned children, the elderly and/or indigenous and culturally diverse people as well as people with a disability. These groups were included as a focus for specific actions or as case-study examples of good recovery practice.

Policies that included a focus on diversity, complexity and vulnerability e.g. *National Strategy for Disaster Resilience* and *National Disaster Recovery Principles*, mentioned specific groups such as children, people with disabilities and the elderly but did not refer to gender. As a result there is limited identification of the differential needs and contributions of women and men in Australian emergency management policies, nor reliably targeted resources to address inequalities and respond to differences or capitalise on strengths.

## What are the strategic issues?

In the face of Australian policy and planning gender-blindness it is important to ensure that emergency management planning acknowledges accepted Hyogo, regional and national commitments to gender sensitivity and is based on research findings emerging from across the world in a multitude of disaster sites that indicate the critical significance of gender. This enables the identification of strategic issues and directions and improves the way emergency management and recovery plans and activities take into account the gendered nature of disaster impacts and recovery.

The *National Strategy for Disaster Resilience* emphasises the need to be targeted and tailored in developing interventions and disaster resilience capabilities (COAG, 2011, p2, 7, 10, 13). Arguably, disaster recovery will therefore be more effective when based on an understanding of the different needs, vulnerabilities, interests, capacities and coping strategies of women and men, girls and boys before, during and after disasters. This does not compromise strategic directions as it is well established that when gender issues are addressed in disasters, not only do all people benefit (Enarson, 2009, p3) but there are sound economic advantages as well (*UN International Strategy for Disaster Reduction*, 2007, p7).

Historically, attention to gender relations has been driven by the need to address women's and girls' needs and circumstances, as women and girls are typically more disadvantaged than men and boys. However, increasingly, the emergency management community recognises the need to understand what men and boys face in crisis situations and how they recover.

Developing an integrated approach to gender in emergency management and recovery essentially involves assessing the implications for women and men of any planned action and making women's and men's different concerns and experiences an integral dimension of the design, implementation and monitoring of policies and programs. This will increase the effective targeting of emergency management

1. Gender scan – State and territory recovery plans are *Australian Capital Territory Community Recovery Plan* (2007), *NSW Recovery Plan* (2010), *Northern Territory Emergency Management Recovery Plan* (2007), *Queensland Recovery Guidelines* (2011), *South Australia Emergency Management Plan* (2012), *Tasmania Emergency Management Plan* (2011), *Victoria Emergency Management Manual Victoria, Part 4* (2012), *Western Australia State Emergency Management Plan for State Level Recovery Coordination* (2008).

2. Gender scan – Australian Government documents are the *National Strategy for Disaster Resilience* (2011), *National Principles for Disaster Recovery* (2011), *Community Recovery Handbook* (2011), *National Emergency Risk Assessment Guidelines* (2010).

resources and strategies. The aim is not to add new tasks or responsibilities to jobs that are already tough, but rather to work smarter to ensure good, commonsense programming in dealing with disasters.

## Gendered data and analysis

International agreements such as the *Hyogo Action Framework* and *5th Asian Ministerial Conference on Disaster Risk Reduction* (gender statement) consistently highlight the importance of gathering and analysing gender and age disaggregated data to improve effectiveness and limit the potential for inadvertent reinforcement of gender inequalities. Furthermore, Australian government priorities include the development of a gender equity framework and data (Select Council on Women's Issues, 2012).

Nonetheless there is a lack of gendered data or analysis related to disaster impacts, preparedness and recovery in Australia. At its most basic, mortality data is usually available in the reviews of major disasters but there is very limited subsequent analysis of gender trends and patterns to inform emergency management and disaster recovery planning and activities. Across the globe, women are at greater risk in disasters than men (Alston, 2009; Neumayer and Plümper, 2007) and these risks exist during the disaster and in the recovery period that follows (Alston, 2009; Cottrell, 2009).

Neumayer and Plümper's research indicates the significantly higher mortality rates for women in disasters. However in Australia, disaster mortality data from the 2009 bushfires (*2009 Victorian Bushfires Royal Commission*, 2010, p236) and floods from 1998 to 2007 (Fitzgerald, *et al.*, 2010, pp180-186), show that the majority of fatalities are men. This may be related to Australian men being more likely to be involved in frontline emergency management roles, outdoor activities and engaging in high risk behaviour.

Gender disaggregated data regarding disaster recovery e.g. access to and use of support services, community engagement and leadership, risk management and preparedness, and communication and resilience, are generally not available in Australia. Nor are the crucial intersecting dimensions of race, age, (dis)ability and socio-economic status.

Strategic action to get the gender facts in emergency management and disaster recovery is needed and in keeping with Australian government commitments and priorities.

## Increased violence against women during and after disasters

A critical factor emerging from disaster research relates to the increase in violence against women. Violence is the leading contributor to death, disability and illness for Victorian women under the age of 45 (Women's Health Victoria, 2010, p5). The most significant determinants of violence against women

are "the unequal distribution of power and resources between men and women [and] an adherence to rigidly defined gender roles". Furthermore, economic dependence increases barriers to disclosing family violence and seeking support (VicHealth, 2011). These intersecting factors of economic dependence and gender roles are likely to be exacerbated during disasters (Sokoloff and Dupont, 2005).

Vulnerability to family violence is increased during and after disaster by a range of factors.

*"Both men and women suffer grief and loss, and may be traumatised by their experience. Homelessness and unemployment may result from disasters and co-exist with the demands of the recovery and reconstruction phase. Increased contact between the couple, sometimes in shared accommodation, increases tension, and loss of control threatens the male provider and protector role"* (Parkinson, 2011, p16).

Parkinson and Zara's (2012) *The hidden disaster: violence in the aftermath of natural disaster* in this edition of the journal details the gendered issue of violence in disaster recovery and makes recommendations for improvements to emergency management practice.

The growing evidence of increased family violence during and after disasters requires an Australia-wide response. Strategic action to include a focus on disaster recovery and resilience in local, state and federal government plans to reduce violence against women is crucial to address this issue.

The *Victorian Action Plan to Address Violence Against Women and Children* (Office of Women's Policy 2012, p12) includes emergency management workers as a relevant group for inclusion in Common Risk Assessment for Family Violence training across that state. Family Violence and Natural Disasters workshops have been developed by Women's Health Goulburn North East (2012) and pilot programs resourced by state emergency management in flood recovery areas of Victoria and are an example of strategic action to address this issue.

## Men's disaster risk-taking and help-seeking health issues

A World Health Organisation report in 2002 on gender and road traffic injuries remarked that masculinity—as reflected in disaster mortality data—"may be hazardous to health" (World Health Organization (2002), cited in Cockburn and Oakley, 2011). Arguably, hyper-masculinity during and after disasters is particularly hazardous to men and to the wellbeing of women and children who are connected with them (Parkinson, 2011, p29).

In 2005, Australian males experienced higher rates of premature death (as measured by Potential Years of Life Lost), and lost 75 per cent more potential years of life than females. Land transport accidents are also

a major contributor to years of life lost for Australian males (Department of Health and Ageing, 2010, p10). Close to 80 per cent of all those who committed suicide in Australia are men (Mendoza and Rosenberg, 2010, p75) and it is the cause of death with the highest gender disparity i.e. 333 male deaths for every 100 female deaths (Beaton and Forster, 2012, p1). Health statistics such as these can be linked to Australia's particular cultural brand of masculinity and, as with other gender differences and inequalities, can be exacerbated during and after disasters. Masculinity norms may encourage risky ('heroic') action during the search and rescue period, debris removal, and reconstruction, and deter men from approaching relief agencies or seeking counselling later (Enarson, 2000, p4).

At the time of floods in East Gippsland in 1988 the number of male deaths in the under-30 age group was around five times greater than the number of female deaths. Of these, 37 per cent of deaths were as a result of suicide and 13 per cent as a result of other accidents (Emergency Management Australia, 2003, p30). Community development officers working in the flood areas noted the continuing issues for men's health, especially in relationship to the rural male cultural issues which appeared to them to prevent men from seeking assistance for mental and/or physical health issues.

Australian women's concern for their men's health and the consequences of men's behaviour during and after disasters is documented in recent research and projects.

*"Women often need to 'talk' to deal with emergencies, men need to be 'seen to be doing'; we talk a lot more, the blokes don't; they keep it to themselves ... they might say it eventually but they keep it to themselves"* (Hazeleger, 2012).

It is clear from women's stories after disasters that they worry about men's risk of suicide, violence, abuse of alcohol and drugs, risky driving, not talking to anyone and bottling up feelings (Emergency Management Australia, 2003, p30). Women's narratives in the weeks and months after the Black Saturday 2009 bushfires in Victoria indicated that for some men, speeding and reckless driving was commonplace, while others sought out adrenalin rush through motorbikes, martial arts or heavy metal music (Parkinson, 2011, p17, 30).

The *National Male Health Policy* (2010) identifies similar issues and recognises 'drought and other adverse events in rural life' as transitional points where early intervention by health service providers may be of particular benefit (DOHA National Male Health Policy 2012, pp10-19). As such, disasters are readily classified as 'an adverse circumstance' requiring early intervention for men. The Male Health Policy (2012, p10) includes a focus on the question – *which men are most affected?* This recognises the intersecting issues of race, age, (dis)ability and socio-economic status and enables an identification of inequities between different groups of men for urgent attention. Such questions must also be asked in times of disaster to shape and target disaster recovery programs.

There is a problematic lack of information about men's issues in disaster recovery and resilience. The strategic opportunity exists to build emergency management gender issues regarding men's needs and strengths into national health policy agendas and into research projects such as the 'What about men' project funded by the National Disaster Resilience Grants (Office of the Emergency Services Commissioner, 2012) and the commitment to develop a National Centre of Excellence under the *National Plan to Reduce Violence against Women and their Children* (Select Council on Women's Issues, 2012).

## Gendered economic factors in disasters

The economic impacts of major natural disasters are profound for women and men alike. Disasters destroy land, household possessions, crops, livestock, and dreams. Jobs are lost when homes and workplaces are destroyed, vulnerable enterprises fail, markets collapse, and vital commercial and transportation networks unravel (Enarson, 2000, p9). The economic situation of women and men prior to disasters is a major factor in their ability to prepare for and recover from disasters.

Socio-economic gender inequalities and gender differences in Australia are recognised and documented in government data such as the ABS Gender Indicators (ABS 4125.0 – Gender Indicator, 2012) and Workplace Gender Equality Agency reports (Workplace Gender Equality Agency, 2012).

Internationally, it is clear that economic insecurity contributes to increased vulnerability for women in times of disaster. Disasters put a disproportionate burden on women who are concentrated in vulnerable employment, are more likely to be unemployed than men, and have unequal access and control over economic and financial resources. Women also take on additional responsibilities to provide non-market substitutes for market goods that their families are no longer able to afford e.g. take away food, child care, house cleaning (UN Commission on the Status of Women, 2009 p3).

Enarson's (2000) analysis of the gender economic impacts of natural disasters across developing and developed countries identified that women recover more slowly than men from major economic losses, as they are less mobile than male workers, likely to return to paid work later, and often fail to receive equitable financial recovery assistance from the government and/or external donors. The diverse and often compounding dimensions of race, age, (dis)ability and socio-economic status are particularly relevant in understanding 'which women' are likely to be most impacted during and after disasters.

Economic recovery post-disaster often targets relief funds to male-dominated employment projects in areas of construction, debris removal, and landscaping. This more often supports the economic recovery of men but



**Communities can recover more effectively when issues of gender are incorporated in policy, planning and recovery activities.**

disadvantages women who also need income support (Enarson, 2000, p22). Large public infrastructure and public work projects, including 'Green Recovery' packages, are a common feature in all stimulus packages. However, the jobs created are mostly in construction where 80-90 per cent of jobs are held by men, and in male-dominated engineering fields (Sirimanne, 2009, p7). Women employed in casual, part-time and low paid jobs will see minimal benefit from economic recovery plans geared to major employers in the formal sector (Enarson, 2006, p3). A specific focus on addressing women's employment and income in disaster recovery plans would be useful in future emergency management planning and practice.

In addition, women's informal workload increases dramatically after disasters. While the psychosocial effects of disasters are experienced by both women and men, women more often have the increased responsibility of family care and attending to multiple workloads. Their carer role continues and is exacerbated by limited support (Women's Health Victoria, 2009, pp13-14). Women often take on more waged or other forms of income-generating work, engage in a number of new forms of disaster work, including emergency response and political organising and have expanded responsibilities as caregivers. Women are more likely than men to delay their return to the labour force or reduce their working hours to juggle paid work with the immediate needs of disaster, the urgency of securing relief assets, and the renovation of homes and workplaces (Enarson, 2000, p13).

These issues are confirmed in research following the Black Saturday 2009 bushfires (Parkinson, 2011, p31) and 2010/11 floods in Queensland and Victoria (Shaw, *et al.*, 2013, p7).

Economic recovery is a crucial element of disaster recovery planning and support. Research and the development of strategies to take into account the impact of disasters on economic gender difference and inequalities are activities that will improve the effectiveness of disaster recovery plans and packages

## Conclusion

Gender is a critical factor in disaster recovery and resilience and is recognised as such in international, national and regional agreements. However, Australian disaster recovery and resilience policies and strategies are out of step with the political landscape and emerging research.

The identified gender disaster recovery issues such as increased violence against women during and after disasters, men's disaster-risk taking and help-seeking, gendered economic differences and inequalities, and the lack of gendered data and analysis require strategic action, ideas for which have been identified in this paper. Opportunities exist to incorporate gender as a key factor in Australian emergency management and health policies, planning, research, training and community support for the benefit of all people affected by disasters.

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## About the author

**Tricia Hazeleger** brings an appreciative inquiry, action learning and strengths-based approach to her work in rural community development, family, youth and children’s services, project management, public service policy development, tertiary education and women’s health. Tricia is currently undertaking PhD studies with the Gender, Leadership and Social Sustainability (GLASS) centre at Monash University, Victoria.

Tricia was also instrumental in developing and co-ordinating material for this edition of the Journal. Acknowledgement must also go to the Victorian Health and Human Services Emergency Management Branch for their support of the Gender and Emergency Management project.

## **Firey Women program**

The South Australia Country Fire Service is building the skills women need to help keep themselves and their families safe in a bushfire.

The South Australian Country Fire Service (CFS) *Firey Women* program was developed as a result of research into the 2005 Wangary fires on the Eyre Peninsula. The research indicated that women and children were over-represented in the fatalities, and that women were at higher risk during a bushfire. This was due to many household members with firefighting skills – generally men – being away from home on the day of the fires. Women found themselves at home caring for children, parents, animals and the property without the skills or knowledge to adequately protect themselves and those in their care (Goodman and Proudley, 2008).

The *Firey Women* program was developed and piloted in 2008 with funding from Emergency Management Australia (EMA). This process is detailed in De Laine, *et al's* (2008) conference paper, "Fiery women. Consulting, designing, delivering and evaluating pilot women's bushfire safety skills workshops".

The success of the program to date is indebted to this early work, and the commitment and efforts of the women of the Eyre Peninsula who have helped shape the content and delivery of the workshops that are run today.

## **The program**

The content of the program is based on feedback provided by the Eyre Peninsula women. Participants indicated what skills they needed to help keep themselves and their families safe in a bushfire. The pilot program identified the range of skills that women needed which they were unlikely – or too embarrassed – to learn from their partners, such as map reading and how to use the fire pump. *Firey Women* workshops are structured to provide a safe and non-threatening environment where women can develop these skills without fear of impatience or criticism.

The pilot also highlighted the importance of being emotionally prepared to survive a bushfire. A significant proportion of the course is focused on emotional preparedness alongside the more tangible knowledge-based planning and physical preparations.



Image: Country Fire Service, South Australia.

*Firey Women* at the local workshop on the Lower Eyre Peninsula in South Australia.

The program design and materials were refined in 2010. It is these revised materials that the CFS Community Education Unit uses in the ongoing rollout of the program across South Australian rural communities.

The program is run as a course and, although the content is fairly strictly controlled, it is adapted to the local fire environment and run at a time and location most convenient to the women involved. Theoretically, it is run as either two full days or four three-hour blocks, and this may vary depending on the women's needs. Factors such as travel time, school hours and childcare are considered as part of the planning process.

The workshops provide women with bushfire safety skills, and include training units which are accredited under the *Public Safety Training Package*. This forms part of the standard requirements of CFS firefighters, and creates a pathway for some women to then undertake further training as female firefighting recruits or to progress into other roles within the CFS, such as within Community Education.

*Firey Women* covers bushfire behaviour, fire danger ratings and warnings. The program empowers women to make decisions for themselves and their families such as deciding when to 'leave early' or 'actively stay and defend' their homes. Women learn how to prepare a Bushfire Survival Plan, prepare themselves emotionally and physically, and develop the skills needed to prevent injury, to identify hazards around the home and operate pumps and firefighting equipment.

The experience is much more than a list of competencies. There is a lot of sharing involved – from sharing a meal, to sharing very personal fears and stories. The workshop can be an emotional rollercoaster for all involved, including the facilitators. Nevertheless, the Community Education Unit's ongoing evaluation of the program (unpublished) indicates that being involved in the program is a worthwhile experience – and a reality check – which leads to real behaviour change.

## The outcomes

Pre and post workshop self-evaluations indicate an increased understanding of what it means to be prepared for bushfire. Data collected to 2011 (24 courses, 280 participants) indicates that before the workshop 57 per cent of participants thought they were 'well' or 'extremely well prepared for bushfire', but afterwards only 37 per cent recorded that perception. Importantly the data indicates a move towards better preparation and planning. For example 'having a practiced and written Bushfire Survival Plan' moved from 7 per cent to 69 per cent. Safer behaviour during fire danger weather 'leave early regardless of fire' moved from 7 per cent to 21 per cent and property preparation 'prepared a property protection plan with a calendar of actions' moved from 11 per cent to 66 per cent.

However, what the data does not measure is the potential for the *Firey Women* program to give women the confidence to be a decision-maker and action-taker in their own home and community. Participant

comments and anecdotal evidence suggest that women return to their home life with a greater sense of empowerment and determination to act safely and knowledgeably during the bushfire season. Sometimes connections made during the course continue independently. Some groups request return get-togethers and refreshers in subsequent years and some individuals instigate Community Fire Safe Groups in their areas. However, there is no long-term data collated to date to verify this.

For the CFS Community Education Officers, running a *Firey Women* program can be a very intense and satisfying experience. The program is run with at least two paid facilitators, of whom one must be a woman, with a minimum of 12 and maximum of 20 participants. From the facilitator's viewpoint, this is a rewarding experience and a great opportunity to connect closely with members of the community. From an organisational viewpoint, this can be an expensive program to run. There are some concerns that resourcing this program may compete with the Community Education Unit's core program, *Community Fire Safe*. In comparison to *Firey Women*, this program is well-supported by pre and post fire research as having measurable, positive impacts on personal and property survival during a bushfire (Goodman, *et al*, 2008).

There continues to be a fairly high demand for the *Firey Women* workshops and to date, there have been 39 workshops run with almost 500 women participating.

The up-coming challenge for the CFS Community Education Unit is how to continue supporting the delivery of the *Firey Women* program in South Australia, as part of the overall engagement strategy to facilitate a bushfire safer community.

## Further information

Fiona Dunstan, Project Manager Partners in Bushfire Safety, South Australia Country Fire Service.

Web: [www.cfs.sa.gov.au/site/prepare\\_act\\_survive\\_2012/community\\_programs/firey\\_women.jsp](http://www.cfs.sa.gov.au/site/prepare_act_survive_2012/community_programs/firey_women.jsp).

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**Goodman, H., and Proudley, M.,** 2008. *The social contexts of responses to bushfire threat. A case study of the Wangary fire. In J. Handmer and K. Haynes (Eds.), Community Bushfire Safety. Collingwood, Vic: CSIRO Publishing, pp47-56. Weather the Storm – women prepare*

## ***Weather the Storm – women prepare***

While natural disasters such as fire and flood may make headlines, there are many other potential disasters that are sometimes overlooked. Prolonged loss of electricity, water or food supplies, pollution or chemical spills, pandemics and strike action are all possibilities.

*Weather the Storm* was a trial program that ran from July 2011 to June 2012. Its aim was to bring women together to identify and understand what needed to be done to prepare households and communities to manage through natural and other disaster events and build resilience in recovery.

*Weather the Storm* is a project of the National Rural Women's Coalition. It brought women in communities together to discuss, plan and support each other to be more prepared for disasters that might threaten the local area. Participants were able to share personal stories, discuss ideas, consider disasters from many angles, connect and build community, and laugh and touch each other's hearts.

Women from the Doreen, Victoria and Eungella and Midge Point, near Mackay, North Queensland participated in the program. The program was facilitated over three to five sessions and stimulated conversations about the risks participants faced, their attitudes to the risks, and how they would prepare.

## **Program values**

The program was underpinned by a set of core values.

**Gender sensitivity** – women are often more comfortable, share more and participate more freely in a group when there are only women and they are able to connect through their shared gender experiences. This means women need tailored opportunities to learn and participate.

**Connectedness and safety** – building a safe, intimate environment provides a sense of connection, safety and belonging where people can share their lives and know each other at a deeper level. This builds community bonds, encourages participation, and makes learning and change more effective.

**Respect** – respect for each other's experiences and life situation builds the trust that, with good information, support and encouragement, women can make the best decisions for themselves and their families.

**Conversation** – the program tapped into the fundamental experience of communication, where thoughts become stronger when expressed. Like any behaviour change, the company, support and encouragement of others often helps keep us focused and committed.

**A program for the willing** – the program's strength is in working with those with a keen interest in the area. We seek to attract women interested in preparing rather than impose the program on groups of women meeting for other reasons.



Participants from Midge Point.



Image: Amanda Lavarack

**Participants from Eungella share stories about living with disaster risk.**

## Outcomes

The three trial groups (Doreen north of Melbourne, and Eungella and Midge Point near Mackay) decided they wanted to continue meeting as a group.

A post-program survey evaluated the wide range of activities the women had undertaken in preparation for the workshop and provided lists of what they intended to do in the next six months. There was a considerable increase in feeling of safety and a unanimous agreement that the program had strengthened their connections. There were some suggestions for improvement and a 100 per cent support for running the program again and for recommending the program to a friend.

A 'most significant change' story evaluation was also done. The following are some of the answers to the question:

'From your point of view, describe a story that best describes the most significant change that has resulted from your involvement in this program':

*Age 35 – 54 I guess it would be a shift in my way of thinking, in that I now feel a sense of responsibility to my family to protect and provide for them, now that I have been shown the tools. I am now taking steps every week to finalise my emergency plan and prepare my emergency kit.*

*Age 55+ Having participated these last few weeks, the information we have received has helped to form a bond with the other women. Each of you has given me confidence to get active once again and prepare my emergency plan for my home. Added also is the knowledge that there is an abundance of information available which can be obtained and shared with others who were unable to come to the group meetings.....also my husband has been keen and involved in the process of being prepared and has help in some of the preparations around the house.*

*Age 55+ I have learned much more about the after effects and how to deal with them.*

*Age 55+ I now have more contacts and support networks from the community. These ladies have been an inspiration. They have survived and actually blossomed with relating their experiences. I needed to reinforce the idea that we all go through it and can learn from each other.*

*Age 55+ When I realised that I didn't know it all even though I have been through several cyclones.*

*Age 35 – 54 The most significant change I feel for me is the reconnection of the women/group. Bringing back/ uniting our community as one. I feel being a part of this program has given me the skills /courage to reconnect in some way with my very manly husband. Very useful skills/ ideas were shared.*

*Age 55+ Reconnection and some new connections to the other local women with prospect of rekindling community spirit. An opportunity to express oneself and be heard without other members jumping 'down one's throat' and continuing meeting and building on this opportunity. A re-motivation to tidy up and prepare at home for any future uncertainties.*

*Age 55+ People here have been through many experiences and I feel I can turn to them for assistance and help. I have enjoyed getting to know you all. As I spoke today of dialogue you have communicated on a deeper level and it was meaningful.*

*Age 15 – 34 Since coming to the workshop I look at things differently – especially when I go shopping or look in my pantry. I've decided to make more effort to be more in touch with my environment – I've come to the conclusion that I have all I need = shopping, accumulating and wanting things that others have is pointless and very unfulfilling.*

*Meeting and hearing a little bit about the women I've met has warmed my heart because they are all very layered and interesting in lots of different ways.*

*Age 55+ Hearing other ladies stories of stressful situations, of how they coped has helped me to realize we are not alone. There are others who will help me to cope. This back up group is very important.*

A *Weather the Storm* Manual and toolkit has been developed to encourage further deliveries of the program and provide advice for facilitators. It will soon be accessible on the National Rural Women's Network and *Weather the Storm* websites.

### Further information

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Web: National Rural Women's Network,  
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Web: *Weather the Storm*,  
[www.weatherthestorm.net.au](http://www.weatherthestorm.net.au).

# Regional Victoria in 2021: changes and implications for the emergency management sector

**Dr Holly Foster (Fire Services Commissioner's Office Victoria), Dr Joshua Whittaker, Professor John Handmer, Adriana Keating (RMIT University) and Tom Lowe (Ipsos Social Research Institute) consider the key economic and population changes that are taking place in regional Victoria and consider the implications for the emergency management sector.**

## ABSTRACT

The Victorian Fire Services Commissioner (FSC) has embarked on a program of research exploring anticipated changes across Victoria over the coming decade. Titled '2021', this research aims to build the evidence of change in Victorian communities, identify the drivers of change, and describe the likely impacts on the emergency management sector. This paper outlines some of the key economic and population changes that are taking place in regional Victoria and considers their implications for the emergency management sector (State-level policy and strategy) and emergency services organisations (service delivery, programs and local needs). <sup>R</sup>

is not intended to provide an exhaustive list of perceived changes or implications. A detailed report, which will include implications for emergency services organisations as well as for emergency management, will be available from the Victorian Fire Services Commissioner's website after June 2012.

## Economic change

Economic vitality contributes to overall resilience in communities. The ability of social systems to withstand shocks and maintain functionally under stress is linked to the continuity of employment, spending, investment and overall community economic vibrancy (Foster and Hoy, 2012; Handmer and Hillman, 2004).

Agriculture is key to the prosperity of most of regional Victoria and it continues to be an important contributor to the state economy, although its relative share has been declining for some time.

Since the 1970s, the Australian agricultural sector has undergone significant transformation. Trade liberalisation has exposed the sector to competition in volatile international markets, often with subsidised producers. Prices for inputs have increased while prices for outputs have declined, creating a cost-price squeeze for the sector (Taylor, *et al.*, 2006). These economic pressures have significant impacts on farm business management, continuity (in particularly dry or wet years) and anticipated yields.

While the productivity of Australian agriculture has increased steadily since the 1960s, employment in the sector has declined (Productivity Commission 2005). These changes are largely due to advancements in technology and innovation within the sector. Increasing mechanisation and corporatisation have contributed to an increase in the average size of farms, but a reduction in their total number. This has been the trend in all farming industries except poultry farming and grape growing. The monetary size of farms is following the

## Introduction

Populations and settlements in regional areas of Australia have changed dramatically. How and where people live, work and recreate has changed, as has the expectation of governments to invest in, provide, and maintain public infrastructure. Macro-level forces are driving change in communities, influencing populations, economies and lifestyles. In Victoria, the growing population has resulted in significant shifts in community dynamics. These changes place continued pressure on governments to meet community needs, expectations and sustain regional populations into the future.

The Victorian Fire Services Commissioner's 2021 research program explores how anticipated changes in the community will influence the provision of emergency management and impact the operations of emergency services organisations in the near future (to the year 2021). This paper provides an overview of trends in economics and population and some implications of these trends for emergency management. The paper

same pattern with fewer farms valued at less than \$200 000 and more valued over \$200 000 (Taylor, *et al.*, 2006). It is important to note that while large farms now contribute more value to the industry, they are still substantially outnumbered by smaller, family farms (Productivity Commission 2005; Taylor, *et al.*, 2006).

These changes, coupled with periods of severe drought, have placed considerable pressure on many rural households and communities. For example, the 2002/03 drought in Victoria led to a 25 per cent decline in the State's agricultural output and exports and was coupled with a 15 per cent fall in agriculture-related employment (Productivity Commission 2005). Increased economic pressure has forced many farming households to seek off-farm income (Schwarz, *et al.*, 2012).

These trends have influenced farm management and ownership. Trends including fewer family-run businesses, fewer people required to manage farm businesses, and greater variation in farm type (crops) change the on-site needs of farms. Fewer people on farms results in greater use of off-site contractors and less call for locally-based equipment and people.

### Victorian Agriculture, Forestry and Fisheries fast facts

- Contributed \$7.9 billion, or 2.7 per cent, to Victoria's gross state product in 2011-12 (ABS 2012a).
- Has grown at an average rate of 4 per cent per annum since 2003 (ABS 2012a).
- Employs 78 500 people, 2.7 per cent of all employed Victorians (ABS 2012b) and approximately 10 per cent of Victorians in regional areas (ABS 2010).
- Is Australia's largest exporter of food and fibre (\$9 billion) (DPI 2012).

### Population change

While farms and parts of regional Victoria are experiencing a decline in population, the State's overall population is predicted to grow from 5.6 million in 2011 to 8.7 million in 2051 (DPCD 2012a). Most of this growth is expected to occur in Melbourne and its suburbs (from 4.1 million to 6.5 million). Nevertheless, the population of regional Victoria is expected to grow from 1.5 million to 2.3 million (DPCD, 2012a). A modest increase is expected by 2021, with regional Victoria's population projected to grow to 1.7 million (DPCD, 2012b). The growth in Melbourne will impact regional areas through substantially increased numbers of visitors primarily for recreation.

While overseas migration and natural population increase are expected to be the main drivers of population growth in Victoria, growth in regional Victoria will be driven primarily by migration of people from Melbourne (DPCD, 2012a) bringing their metropolitan expectations with them.

Despite an overall increase in population, growth will not be evenly distributed across regional Victoria. The past three decades have seen a general trend toward population growth in and around major regional centres, and population loss in small towns and settlements, particularly those in inland, agriculture-dependent areas (McGuirk and Argent, 2011).

Some parts of Victoria are already experiencing growth as people move away from metropolitan areas for the amenity and lifestyle of coastal and rural settings (Burnley and Murphy, 2004; Costello, 2007). Reduced housing affordability within inner Melbourne (Wood, *et al.*, 2008; Yates, 2008) is also encouraging growth in some rural towns and regions. These tend to be areas where goods and services are easily accessible and/or are within commuting distance of Melbourne or other major regional centres. In contrast, towns and regions that do not have easy access to goods and services and provide limited opportunities for education and employment, have tended to experience population loss (McGuirk and Argent, 2011). These trends are expected to continue, with population growth in and around regional centres such as Geelong, Bendigo and Ballarat. Little or no growth is expected in less accessible, agriculture-dependent regions such as northeast and western Victoria (DPCD, 2012a; refer to Figure 2).

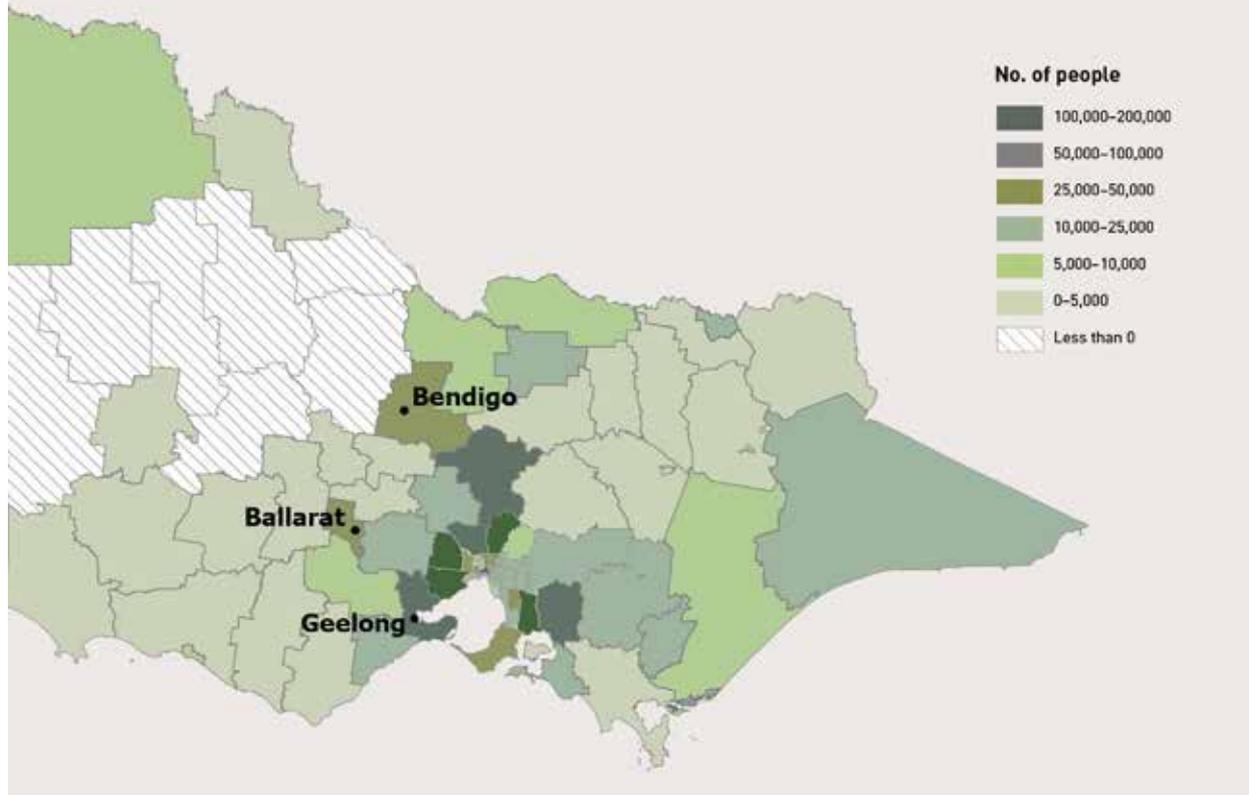
While Victoria's population is growing, it is also ageing. There are a number of factors contributing to the changing age structure of the population, including:

- the large number of people born between 1945 and 1971
- the current decline in birth rates, and
- the increasing life expectancy of Australians, particularly women (DPCD, 2012a).

Melbourne's age profile is expected to remain younger than in regional Victoria as it attracts young migrants from other countries, interstate and regional areas. Regional Victoria's older age profile is likely to be accentuated by the outmigration of young people, particularly those aged 20-29 years (DPCD, 2012a). Projections for regional Victoria suggest a slightly older population in 2021 than in 2011, with an increase in the number and proportion of people aged over 60 years (from 341 426 to 467 681; 23 per cent to 28 per cent) and over 70 (from 173 267 to 250 692; 12 per cent to 15 per cent) (DPCD, 2012d).

In addition to population growth, Victoria will face challenges associated with a rapid increase in the number of households. Projections for 2036 suggest a 56 per cent rise in the number of Victorian households based on 2006 levels (DPCD, 2009). In regional Victoria, an

FIGURE 2. Population change by local government area, 2011-2031 (DPDC, 2012a)<sup>1</sup>.



additional 103 500 occupied private dwellings are expected by 2021 (DPCD, 2011c).

Contributing to the projected increase of dwellings are noted demographic and social changes including:

- an ageing population
- longer life expectancy
- increases in separation and divorce, and
- the delay of marriage (ABS, 2010; DPCD, 2012a).

These factors are contributing to a gradual decline in average household size across Australia which is predicted to decrease from 2.6 people per household in 2006 to 2.3 people per household in 2026 (ABS, 2010). In regional Victoria, only a slight decrease in the number of people per household is expected by 2021, from 2.48 people per household in 2011 to 2.40 people in 2021 (DPCD, 2011c). The number of one-person households is also predicted to rise in regional Victoria, from 162 302 (27.7 per cent) in 2011 to 203 311 (29.5 per cent) in 2021 (DPCD, 2011d).

With an ageing population, it is expected that elderly people, predominantly women, will remain living at home later into life. In response to the Productivity Commission’s (2011) inquiry into aged care, the Australian Government announced a range of measures to reduce the strain on health and aged care services and infrastructure, including a plan for home health care to keep elderly people in their homes for as long

as possible. Technological change is expected to facilitate this policy direction, with sensor networks such as fall detection monitors to be used in homes to assist in maintaining health and wellbeing (Ruthven, 2012). In some areas, an increasing proportion of the community will consist of households with people who have limited physical capacity.

### Implications for emergency management

Emergency management will be confronted with larger populations and an increased number of assets will be at risk. Population growth and an increase in the number of households in regional Victoria are likely to lead to increased exposure of people and assets in high risk areas. In particular, rapid growth in the number of households (by more than 100 000 in regional Victoria by 2021) may encourage further residential development and infrastructure in areas at risk from bushfires and floods.

In addition, trends in agriculture such as increasing farm size, greater mechanisation, enhanced productivity and a declining workforce suggests an increase in large, asset-laden farms with few people to protect them in an emergency. There is evidence that financial pressures associated with increased costs of production, reduced income and drought prevent many primary

1. Note that use of the local government area scale obscures some intra-regional differences. Most of East Gippsland’s population growth, for example, is likely to occur in the large, regional centres of Sale and Bairnsdale.

producers from taking out adequate insurance (Whittaker, *et al.*, 2012). Those without insurance or who are under-insured are particularly financially vulnerable. The lack of insurance may increase household and business reliance on Government services, as well as the support provided through family, social networks and community organisations.

If regional economies become increasingly dependent on recreation activities by Melbourne-based people, there may be tension between the needs of local economies and those of community safety. For example, on high fire risk days, precautionary evacuations and closure/suspension of some government services may occur. This has the potential to reduce outside spending in the region relied on by local businesses.

Declining and ageing populations in isolated towns and regional areas present challenges across the State. Difficulty recruiting and retaining volunteers suggests the need for greater interoperability between agencies – as well as communities, towns and regions – to facilitate sharing of resources and expertise. Increasing the jurisdiction of adequately resourced volunteer groups may fill gaps where local volunteer capacity is limited. However, longer response and call-out times can act as disincentives to potential volunteers (Birch, 2011), suggesting a possible need for deployment of paid emergency response teams in some areas.

Population changes also present opportunities. Some regional areas will benefit greatly from population growth, providing a strong basis for community participation in preparedness and response activities. Increasing numbers of retirees in regional Victoria with the time and skills to volunteer represent a valuable resource for emergency management (Salt, 2012). However, following an initial spike in volunteer activity in the next few years, it is likely that the ageing ‘baby boomers’ will be able to devote less time and energy to physical response activities. These limitations could be compensated for by greater volunteer involvement in prevention and preparation activities.

### Implications for emergency services organisations

The trends identified in this paper will also have implications for emergency services organisations. The migration of residents from urban to regional areas represents a significant challenge, as most will have limited awareness and experience of the risks they face. It is also likely that these residents, with experience of urban service delivery, will have higher expectations of emergency services. Agencies will need to find ways to engage new residents in activities to increase risk awareness, preparedness and safe response, as well as to manage their expectations.

The growth of Melbourne’s population is also likely to impact on regional Victoria and local economies through increased recreation and holiday home

purchases – resulting in increasing numbers of properties that are unoccupied for much of the time. Increased use of public land, particularly national parks, could lead to greater demand for ambulance, search and rescue and other emergency responses, as well as warnings and emergency-related information targeted at tourists and other visitors to regional Victoria.

Providing support during emergencies to the elderly and others who may have limited capacities represents a significant challenge in isolated towns and regions, as well as in rural and coastal areas that have experienced rapid growth. Community engagement, profiling and mapping will enable agencies to monitor changing community dynamics and tailor meaningful services and engagement programs to local needs. Greater information transfer and collaboration between emergency services organisations will enable a more holistic and integrated approach to local service delivery.

An aging population in regional areas may also require emergency services organisations to integrate specific training, equipment and supplies into their operations in order to mobilise elderly residents during emergencies.

It may be necessary for emergency services to develop new business models to adapt to declining local capacity in some regional areas. Greater interoperability between agencies would increase the capacity of emergency services, as would different approaches to community involvement. New approaches to volunteer recruitment and deployment could capitalise on population growth and allow services to be extended to towns and regions with limited local capacity.

### Conclusion

This paper has explored some of the economic and population changes that are taking place in regional Victoria and their implications for emergency management and emergency services organisations. While comparatively minor changes are expected by 2021, trends suggest there is a need for the sector and its agencies to begin planning for and adapting to these changes now. Many of these changes call for greater agency interoperability and new modes of recruiting and volunteer deployment.

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# 10 years on from the 2003 Canberra bushfires: vigilance and co-operation is key

Sarah Mason attended the 10-year memorial ceremony in Canberra.

On 18 January 2013, over 400 residents, emergency services personnel and officials gathered at the Mount Stromlo Bushfire Memorial to remember the 2003 bushfires that ripped through Canberra's outer suburbs. The simple memorial service captured the spirit of recovery for those affected by the disaster and recognised the continuing efforts of emergency services personnel and volunteers in the ACT and beyond.

Exactly ten years earlier fires ravaged the region, claiming four lives and destroying almost 500 homes.

The ACT Government investigated operational responses to the fires by commissioning an inquiry by Ron McCleod, a former Commonwealth Ombudsman. The findings were handed down on 1 August 2003. The Inquiry recommended an increased emphasis on controlled burning as a fuel-reduction strategy and improvements to the training of emergency personnel in remote areas. The report also recommended changes to the ACT emergency services and the policies that governed their operations.<sup>1</sup>



Former Chapman resident Jane Smyth speaks about her experience on January 18, 2003.

The Coroners Court of the Australian Capital Territory (ACT) also conducted an inquiry into the cause, origin and circumstances of the 2003 bushfires including inquests into the four deaths. The Coroner, Maria Doogan, delivered her report in December 2006 and identified several key causes. These included how the emergency services responded to the fires, their facilities and equipment, and heavy fuel loads.<sup>2</sup>

On 26 March 2003, a Select Committee was established to inquire more deeply into Australian bushfire incidents. The committee invited submissions from individuals and organisations through public hearings around Australia.



Mel Richers, Mike McColl, Simon Katz, Pat Barling and Matt Dutkiewicz from the Rivers Volunteer Rural Fire Brigade.



Charmaine Quade from the Australian Federal Police and Officers from the ACT Ambulance and Australian Federal Police watch the ceremony.

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2. Maria Doogan, *The Canberra Firestorm: Inquests and Inquiry into Four Deaths and Four Fires between 8 and 18 January 2003. Volume I and Volume II*, 19 December, 2006. At: [www.courts.act.gov.au](http://www.courts.act.gov.au).



**ACT Chief Minister Katy Gallagher spoke at the event, drawing attention to the community’s resilience and the need for continued vigilance.**



**Residents sheltering from the sun commented on the eerily similar conditions to the same day ten years earlier.**

The committee tabled the report on 5 November 2003 and the Australian Government presented its response to the report on 15 September 2005.

The final recommendations emphasised a collaborative approach to bushfires in Australia, expressing hope that

*“political fora such as the Council of Australian Governments and administrative fora such as the Australasian Fire Authorities Council (will) move toward bringing about a comprehensive national policy to bushfire management that includes agreed standards on the management of public lands and fire suppression activities as well as building and planning standards”.*<sup>3</sup>

The ACT Government measured its progress in 2013 with a review of fire management arrangements by the ACT Bushfire Council, chaired by Kevin Jeffery. The report reviewed how government has responded to various inquiries since the firestorm and identified “very significant advances” in bushfire planning, including the update of firefighting equipment and facilities, the establishment of community fire units and the provision of bushfire information to the community.<sup>4</sup>

The ACT Bushfire Council made 22 recommendations to government to address areas needing further attention. It emphasised the urgent need for officers

who are likely to take leadership roles during big fires to be given opportunities to work on significant blazes in other jurisdictions.

During her speech at the bushfire memorial service, ACT Chief Minister, Katy Gallagher said that the lessons learned in the 2003 bushfires were learned in the ‘hardest possible way’. It’s a national challenge that will continue to require vigilance and co-operation between the states and territories to make those lessons count.



**Emergency services personnel sharing in the ceremony, which acknowledged and thanked them for their year-round efforts.**



**ACT Minister for Police and Emergency Services, Simon Corbell MLA, drops a flower into the reflection pool at the close of the ceremony.**

3. House of Representatives Select Committee, *A Nation Charred: Inquiry into the Recent Australian Bushfires, 5 November, 2003*. At [www.aph.gov.au](http://www.aph.gov.au).

4. Kevin Jeffery and ACT Bushfire Council, *Review of Fire Management Arrangements in the Territory, 2012, November 2012*. At [www.esa.gov.au](http://www.esa.gov.au).

# From ashes to arboretum: protecting the ACT's natural land assets

Christine Belcher interviews Neil Cooper, Manager Fire, Forests and Roads, ACT Government.

**In January 2003 the ACT was hit by disastrous fires that devastated 60 per cent of the Territory's forestry plantations in a single day. Over 10 000 hectares of natural forests and pine plantation were raised to the ground destroying natural habitats for wildlife, and commercial and residential property. The fires of 2003 were a significant fire event and they have played a significant role in keeping fire hazard awareness and fire mitigation tactics at the forefront of the government's planning considerations.**

This year, 2013, marks the 10-year anniversary of the fires as well as the 100-year celebration of the birth of Canberra as Australia's national capital. Part of the celebrations includes the opening of the National Arboretum which is a realisation of Walter Burley Griffin's vision for a place where trees and plants could be cultivated for the purpose of conservation, preservation, research, education and display.

The National Arboretum is on a 250-hectare site only six kilometres from the centre of the city and near Lake Burley Griffin. The area was a pine plantation covering what was previously known as the Greenhills Forest area. The National Arboretum provides a mosaic of permanent plantings and gardens, outdoor sculptures, bonsai plantings, a reflective pavilion, outdoor events areas, and a visitor centre. As the city marks 10 years since the 2003 fires, the National Arboretum has become a symbol of the recovery program.

## Being prepared

The ACT Government, through its Parks and Conservation Service, is responsible for fire management on all government land within the ACT (over 80 per cent of the ACT's total land area) as well as preventing fires from crossing its borders into NSW. The agency carries out a range of activities across the Territory to minimise the adverse impacts resulting from unplanned fire events. These include vegetation slashing, controlled burns, cattle grazing, road maintenance, maintenance of fire assets like helipads



Image: Christine Belcher

The eagle and nest sculpture overlooks the National Arboretum which has become a symbol of the Capital's recovery program.

FIGURE 1. Fire management planning in the ACT.



and portable water storage units, and collaboration with land-planning agencies in the ACT.

Neil Cooper said, “The three main fundamental considerations relating to fire management planning and fire risk mitigation are the preservation of human life, protection of property and protection of the environment. As a land manager, ACT Parks and Conservation Service has to balance protection of life, property and the environment for the benefit of all stakeholders.

“The ACT has a number of significant and often threatened ecological communities. Due to the nature of Canberra and its ‘city in the bush’ attributes, many of these assets and habitats of endangered species can come under constant threat when activities are implemented to reduce fuel loads. Compromises are constantly being made as the threat to life is addressed,” he said.

Some of the compromises that are found can be as simple as altering the burning time period. Plant flowering and seeding times can be taken into account to avoid sensitive periods in their life cycle while still maintaining the need to reduce the fuel loads. Birds nest and feed at specific times and planned burns can be scheduled to ensure that any impact on the species is negligible while still achieving a fuel reduction outcome. An example of this is on Mount Rogers in the ACT. This is a known feeding site for the fledgling stage of the threatened Superb Parrot. By avoiding the times of the year when the grasses are seeding allows the fledglings to feed and move on. Burning can be

undertaken in patches which not only reduce fuel but enhance the ecological system in favour of the Superb Parrot.

As well as rare and threatened species there are also important ecological assets that require protection. A small area in the south of the ACT is the only remaining patch of native vegetation that avoided being burnt in 2003. As such it is the only portion remaining that represents ‘a long unburnt community’. This has become an asset that needs protection.

Fire risk changes over time as land use evolves. Around the urban edge where suburbs are extending there is a likelihood that, while fuel loads may decrease, the chance of ignition increases. To ensure these fire risk changes are taken into account, plans are frequently reviewed and updated to help inform decisions during land-use planning.

Figure 1 shows the cascading approach to fire management planning in the ACT. The *Bushfire Operations Plan* (BOP) is a detailed works programme for the full year. It clearly identifies the activities to be undertaken and the level of resources (financial and physical) required to meet the standards identified in the *Strategic Bush Fire Management Plan*. The BOP is formally approved by the Commissioner of the ACT Emergency Services Agency and is audited quarterly for compliance by the ACT Rural Fire Service. In addition, the annual audit results are publicly reported in the *Territory and Municipal Services Annual Report* tabled in the ACT Legislative Assembly.

## Protecting the ACT

Fire management plans encompass the range of activities to reduce the risk of fire and to facilitate safe and easy access to fight a fire when it occurs. It also includes training, auditing and monitoring, and community education which help build the Territory's resilience and its capacity to meet the challenge that wild fires pose.

Historically, fires approach the Territory from the northwest. When considering fire management of any area in the ACT it is done on a landscape basis. No one feature is considered in isolation. Plans are developed by examining the area to be protected which could be a suburb, a water catchment area, infrastructure or assets, and determining what is specific and possible for that location. For the National Arboretum and its surrounds, the fire management plan includes:

- ensuring the grasses in the park are slashed regularly especially on the north-western edge,
- keeping the trees and plantings well irrigated – this avoids them drying out and producing excess dead leaves which could act as fuel in a fire situation,
- maintaining the neighbouring areas to the northwest by slashing grasses, fencing off areas (usually beside critical access roads) and using cattle to crash graze strategic areas to reduce fuel loads, and
- establishing 'sacrificial' buffer zones (areas of reduced fuel and wide spaced tree plantings) to slow down approaching fires and to provide a defensible space where firefighters can safely mount defensive action on any unplanned fire.

"During a Total Fire Ban day, the Arboretum is closed. This is done not only for the safety of visitors but also to allow ease of access for firefighters to roads in the area, should a fire ignite," said Neil.

The ACT Government's fire management efforts are ongoing and significant. While the many and varied activities are undertaken on an annual basis, it is not just one thing that reduces the fire risk. It is the combination of activities across the whole landscape, like slashing, cattle grazing, hazard reduction burns, road maintenance and the installation of fire mitigation assets in planned areas, which will mitigate fire risk over time.



Controlled burns are part of the ACT Government's fire management activities.



Users of Canberra roads where intensive grazing is used can see it is a fire migration activity.

# 2013 AUSTRALIA DAY HONOURS

## Anne Leadbeater OAM



**Anne Leadbeater was awarded the Medal of the Order of Australia in the 2013 Australia Day Honours for “service to the community of Kinglake, particularly in the aftermath of the 2009 Victorian bushfires”.**

The country town of Kinglake is 46km north east of Melbourne, Victoria and was one of the worst affected areas during the Black Saturday bushfires in February 2009.

Anne has lived in Kinglake for 25 years and was working in community development for Murrindindi Shire Council at the time of the fires. With almost half of the shire land area burnt and access restricted by road blocks and the fires still burning, it

was necessary for the community to draw on its own resources in the immediate aftermath. Anne co-ordinated recovery in the Kinglake Ranges on behalf of Council, chairing twice-daily meetings of all the recovery agencies working in the area, and the series of daily briefings across the fire-affected communities.

“The critical issue”, she says, “was providing honest, accurate information that kept pace with the evolving needs of the recovery. Having processes that connected with local knowledge and experience and supporting the community’s own capacity for resilience underpinned everything we tried to do.”

Of the Order of Australia Medal, Anne said “I feel so honoured to receive this award, particularly given the extraordinary work of so many people on Black Saturday and in the terrible days and weeks that followed”.

The Medal of the Order of Australia is awarded for service worthy of particular recognition.

## Bruce Esplin AM



**Bruce Esplin was awarded the Member of the Order of Australia in the 2013 Australia Day Honours for “significant service to the emergency management sector in Victoria”.**

Bruce worked for the Australia Government for nearly 15 years before joining the Victorian Public Service. He worked in the emergency management sector for over 20 years, the last 10 as the first Victorian Emergency Services Commissioner. He was made a Fellow of the Institute

of Public Administration Australia (Victoria) in 2009 and was awarded the Centenary Medal for his Service in Emergency Management in 2001.

“I feel humbled and honored by the Order of Australia Award”, he said, “and I have been overwhelmed by the very kind words and support I have received by letter, email, phone call and social media since it was announced.

“Even though it is a personal award, I believe it is recognition for the team – my former colleagues at OESC

and like-minded people across the broader emergency management sector both in Victoria, nationally and even internationally, who understood that it was time for emergency management to change. Importantly, it is also recognition for the Victorian communities I met with so regularly, the people who ‘let me in’ at such difficult and tense times, to share their stories, to feel their emotions and their anger, and more importantly, to hear their ideas for change. It is also very much about my wife Roz and the unbelievable role she played and support she gave through both the good and the bad days!

“I continue to be passionate about community resilience, believing strongly that it builds from the ground up – not top down, and that it develops around existing community structures, both formal and informal. Resilient communities are also informed communities. Give people quality information at the right time and they will usually make good decisions – deny people information and their decisions may well be flawed, and governments and their agencies will be trying to manage community outrage,” he said.

The Member of the Order of Australia is awarded for service in a particular locality or field of activity or to a particular group.



<b>Australian Police Medal (APM)</b>			<b>Australian Fire Services Medal (AFSM)</b>
<i>Federal</i>	Superintendent Darren John SPOONER	Sergeant Meredith Fay HUXLEY	<i>Australian Capital Territory</i>
Commander Bruce Phillip GILES	Superintendent John Joseph STAPLETON	Detective Senior Sergeant Trevor George JENKINS	Mr Gregory Leonard BUSCOMBE
Detective Superintendent William Edward QUADE	<i>Northern Territory</i>	<i>Tasmania</i>	<i>New South Wales</i>
Assistant Commissioner Justine Georgia SAUNDERS	Sergeant Paula Maree DOOLEY-MCDONNELL	Sergeant Christopher Ivan LUCAS	Dr Gregory Mark BUCKLEY
<i>New South Wales</i>	Superintendent Kristopher John EVANS	Inspector David William PLUMPTON	Mr Lindsay Ronald HENLEY
Inspector Edward Anthony BOSCH	<i>Queensland</i>	<i>Victoria</i>	Mr Barrie John HEWITT
Sergeant Kevin Bernard DALEY	Detective Superintendent Mark William AINSWORTH	Inspector Michael James BEATTIE	Mr David Bruce MILLIKEN
Superintendent Luke FREUDENSTEIN	Chief Superintendent Brent John CARTER	Senior Sergeant Ian Stewart FORRESTER	Mr Tom NOLLES
Inspector Guy Charles GUIANA	Senior Sergeant Peta Louise COMADIRA	Inspector Gregory John PARR	Mr Errol James SMITH
Inspector Stephen John HENKEL	Superintendent Thomas Herbert GOCKEL	<i>Western Australia</i>	Mr James Patrick SMITH
Sergeant Peter Andrew LUNNEY	Superintendent Glenn Andrew HORTON	Acting Superintendent Barry Lynton KITSON	Mr Wayne STAPLES
Detective Sergeant John ROBERTSON	Senior Sergeant Graham John LOHMANN	Brevet Senior Sergeant Neville Vernon RIPP	Mr Ian Charles STEWART
	<i>South Australia</i>	Commander Paul Anthony ZANETTI	Mr Barry John TINDALL
	Sergeant Michael James BUTLER		<i>Northern Territory</i>
			Mr Gerard Patrick DOWNIE

# Australia Day HONOURS LIST

<b>Australian Fire Services Medal (AFSM)</b>	Mr Barry William DALE	Mr Kerry Charles POWER	Mr Jon Glenn GREGORY
<i>Queensland</i>	Mr James Roger FOX	<i>Queensland</i>	Mr James Angus MCTAVISH CSC
Mr Noel Bruce HARBOTTLE	Mr Gregory John MCCARTHY	Mr Kevin John ELLIOTT	<i>Northern Territory</i>
Mr Ian Gregory HOLM	Mr William Maurice ROUSE	Ms Ann Clarice TAGGART	Mr Mark Richard FISHLOCK CSM
Mr Alun Granville WILLIAMS	<i>Western Australia</i>	<i>South Australia</i>	<i>Queensland</i>
<i>South Australia</i>	Mr Malcolm Graham CRONSTEDT	Mr Dean Hamilton CLARKE	Mr Christopher Ernest ARNOTT
Mr Steven Allen MOIR	Mr Peter KEPPEL	Ms Dawn Frances KROEMER	Mr Kevin James DONNELLY
Mr Kenneth Andrew POTTER	<b>Ambulance Service Medal (ASM)</b>	<i>Tasmania</i>	Mr Adrianus Fransiscus VAN DEN ENDE OAM
Mr Robert Cameron STOTT	<i>New South Wales</i>	Mr Grant Gordon LENNOX	<i>South Australia</i>
Mr Peter Colin WICKS	Mr Michael John CORLIS	<i>Western Australia</i>	Mr Trevor John BOND
<i>Tasmania</i>	Mr Ian Neil JOHNS	Ms Sally Anna GIFFORD	<i>Tasmania</i>
Mr Kenneth BURNS	Mr Terence Edward WATSON	Ms Sally Ann SIMMONDS	Mr Donald George MACKRILL AFSM, OAM
Mr Garry John COOPER	Mr Kenneth Charles WHEELER	Mr John Douglas WATTS	Mr Mark David NELSON
Mr Rodney Kenneth SWEETNAM ESM	<i>Victoria</i>	<b>Emergency Services Medal (ESM)</b>	Mr Bevis Charles PERKINS
<i>Victoria</i>	Mr Jonathan David BYRNE	<i>New South Wales</i>	<i>Victoria</i>
Mr Rocky Joseph BARCA	Mr Anthony Scott OXFORD	Mr Russell Ian ASHDOWN	Timothy James WIEBUSCH
Mr David Eric BLACKBURN			

# EM ONLINE

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For those working in the emergency management sector there is also a community forum space. Register to discuss ideas and issues affecting the sector.

We would like to thank the organisations which have contributed to and supported the development of the Knowledge Hub. We welcome all contributions and feedback from the emergency management sector.

This release is a BETA version of the Knowledge Hub. If you would like more information about the Knowledge Hub or the National Strategy for Disaster Resilience, please visit our about page.

DISASTER RESILIENT AUSTRALIA RESOURCES

TWITTER FEED

EM Knowledge Hub says:  
14,000 lives, \$188 billion: the global toll of disasters in 2012 via @journa  
<http://au.emknowledge.org/insurance>

GENDER RESOURCES PACK

Online resources:

- The Gender and Disaster Sourcebook, Gender and Disaster Network: <http://www.gdsourcebook.org/contents000/>
- Women's Health Queensland North East: <http://www.ahwealth.com.au/index.html>
- Gender mainstreaming in emergency management: a training module for emergency planners, Elaine England: <http://www.emknowledge.gov.au/webcontent/70-2513>
- Gender Briefing Papers, Australian Red Cross: [http://www.redcross.org.au/gender-briefing-papers.aspx?utm\\_medium=email&utm\\_campaign=International-Women's-Day&utm\\_content=International-Women's-Day](http://www.redcross.org.au/gender-briefing-papers.aspx?utm_medium=email&utm_campaign=International-Women's-Day&utm_content=International-Women's-Day)
- Making disaster risk reduction gender-sensitive: policy and practical guidelines, United Nations Office for Disaster Risk Reduction, 2009: <http://www.unisdr.org/we/inform/publications/592>
- Challenging Boundaries: a gender perspective on early warning in disaster and environmental management, Maureen Forthman, 2001: <http://www.emknowledge.gov.au/sooocid/70-2516>

A&E Library Resources:

These resources can be requested from the Australian Emergency Management Library:

- The Gendered Terrain of Disaster: Through Women's Eyes, Edited by Elaine England & Betty Reardon, Women, 1998, Oid. 303 348082 GEN

A gender resources pack is now available on the Australian Emergency Management Knowledge Hub. The collection provides a list of key resources and research regarding gender in emergency management. It includes websites, journal articles, and multimedia focused on analysis of traditional gender roles, integrating gender into disaster management and planning, and examples of how gender roles have impacted on response to and recovery from disasters, such as the Black Saturday bushfires and Hurricane Katrina.

### For further information

[www.emknowledge.gov.au](http://www.emknowledge.gov.au)

Follow us on Twitter: @AEMKH

Or email us: [emknowledge@ag.gov.au](mailto:emknowledge@ag.gov.au)



## Australian Emergency Management Institute

The Australian Emergency Management Institute (AEMI) is a Centre of Excellence for education research and training in the emergency management sector. In support of the COAG *National Strategy for Disaster Resilience* (2011) AEMI:

- ◆ Provides education and training
- ◆ Conducts strategic activities
- ◆ Undertakes applied research
- ◆ Promotes community awareness and education



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- 16-19 July Community in emergency management
- 22-26 July Facilitate emergency risk management
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- 06-08 August Develop and use political nous
- 20-23 August Develop and organise public safety awareness programs
- 26-29 August Develop and maintain business continuity plans
- 27-29 August Develop and use political nous



For further information please visit [www.em.gov.au/aemi](http://www.em.gov.au/aemi) Email: [aemi@ag.gov.au](mailto:aemi@ag.gov.au) Phone (03) 5421 5100



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