A History of the Prepare, Stay and Defend or Leave Early Policy in Victoria

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

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Declaration

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

Benjamin Thomas Reynolds

February 2017
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Glossary of Abbreviations

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<tr>
<td>ACF</td>
<td>Advocacy Coalition Framework</td>
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<tr>
<td>AFAC</td>
<td>Australasian Fire and Emergency Service Authorities Council</td>
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<td>AWW</td>
<td>The Australian Women’s Weekly</td>
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<td>CFA</td>
<td>Country Fire Authority</td>
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<td>CFS</td>
<td>Country Fire Service</td>
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<td>COAG</td>
<td>Council of Australian Governments</td>
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<td>CRB</td>
<td>Country Roads’ Board</td>
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<tr>
<td>CRCS</td>
<td>Centre for Risk and Community Safety, RMIT</td>
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<tr>
<td>CSIRO</td>
<td>Commonwealth Scientific and Industrial Research Organisation</td>
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<td>FCV</td>
<td>Forests Commission of Victoria</td>
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<td>MFB</td>
<td>Metropolitan Fire Brigade</td>
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<td>MS</td>
<td>Multiple Streams Approach</td>
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<td>NDO</td>
<td>Natural Disaster Organisation</td>
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<td>PCA</td>
<td>Productivity Commission of the Australian Federal Government</td>
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<td>PET</td>
<td>Punctuated Equilibrium Theory</td>
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<tr>
<td>Stay or Go</td>
<td>Prepare, Stay and Defend or Leave Early</td>
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<td>UFUA</td>
<td>United Firefighters Union Australia</td>
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<td>UN</td>
<td>United Nations</td>
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<td>VAD</td>
<td>Voluntary Aid Detachments</td>
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<td>VDC</td>
<td>Volunteer Defence Corps</td>
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<td>VSD</td>
<td>Volunteer Service Detachments</td>
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Abstract

This thesis comprises an historical examination of the ‘Stay or Go’ policy of bushfire safety in Australia, with a particular focus on the state of Victoria, Australia. The bushfire management strategy practised in Victoria is unusual, in that public safety advice recommends residents take responsibility for deciding their response to a threatening fire. This approach is based on the belief that it is the most effective way to prevent losses. At one time it was heralded by the United Nations for saving lives and property, and empowering those at risk. In the 1990s, the Victorian Country Fire Authority (CFA) formalised this model into a variety of community training and education programs. It went on to become the national policy position, with the Australasian Fire Authorities Council (AFAC) advising residents to choose whether to ‘Prepare, Stay and Defend’ their house from fires, or to ‘Prepare and Leave Early’, before the fire threatens. This approach, colloquially known as ‘Stay or Go’, stands against public safety strategies in other national contexts where residents are ordered or encouraged to evacuate from fire-grounds, and/or fire-fighting is viewed as the responsibility of the state. This thesis demonstrates that the selection of Stay or Go as policy cannot be properly understood without considering how it emerged historically from a number of different developmental pathways. The importance of such historical analysis is often overlooked in bushfire research in Australia, which has tended to take an individualist, community or psychological focus. This thesis aims to address this narrow focus by providing a thorough background to the development of the Stay or Go policy in the context of Victoria.

Understanding the historical development of the Stay or Go policy is particularly pertinent at this time, as it was brought into question after the significant loss of life in the 2009 ‘Black Saturday’ bushfires in Victoria. A Royal Commission into these fires acknowledged weaknesses in the policy’s application, but ultimately found that the evidence and theory underpinning Stay or Go was sound and recommended revision, rather than repeal, of Stay or Go. The Royal Commission’s assessment provides the endpoint of the analysis. The thesis provides a critical analysis of the existing evidence base for Stay or Go, concluding that it is largely unconvincing. Indeed, the argument made in the thesis is that much of the evidence was produced after Stay or Go was adopted as a policy approach.

The thesis method is based on the historical narrative and developmental pathways techniques associated with an historical sociological approach. These narratives and pathways are used to present ‘stories’ of the development of Victoria’s fire services and the wider community. These stories help explain how Victoria’s fire problem, fire services and community combine to create favourable conditions for the selection of Stay or Go as public safety policy. These primary pathways are considered alongside other antecedent pathways,
such as major disasters, and unique socio-economic, demographic cultural, technological and political change, and socially-constructed knowledge of bushfire management. Key conjunctural events between these pathways are used to explain Stay or Go’s development, refinement and eventual selection as policy. The historical narrative approach allowed the research to present these pathways as periodised stories that allowed for the argument to be sensitive to the importance of the chronology of events, with this periodization occasionally eschewed in favour of a more thematic representation of the argument. These stories were combined with theories of public policymaking to show that major bushfire-related policy change followed from a ‘fast’ paced chain of linked events. The pace and consequences of these events drew the fire problem – or at least a particular frame or understanding of the fire problem – to prominence, and that the policy ideas considered as solutions were constrained by socially-constructed knowledge and understanding of bushfires, and politics.

The stories of Victoria’s fire services and community are told up to the 1983 Ash Wednesday bushfires, which were identified as the crucial event that led to the formalisation of Stay or Go as Victoria’s public safety policy. At this point the thesis shifts its analytical focus to public policymaking, within the structure of Kingdon’s ([1984] 2013) Multiple Streams (MS) framework for policymaking. Kingdon’s framework explains major policy change as resulting from the coupling of three largely independent streams by policy entrepreneurs exploiting opportunities for change. These are the problem, policy and politics streams, referring to the problems (or definitions/frames of problems) that capture the attention of the public and/or policymakers; the policies qua ideas, solutions and alternatives that are developed in policy communities; and the constraints to policymaking created by the ideological nature of the national government, public opinion, and the feasibility of the policy. The stories provide the background information necessary to understand the streams in Victoria at the time of Ash Wednesday, and thus to explain how Stay or Go comes to prominence in the governmental agenda after the fires.

The thesis concludes that the selection of Stay or Go’ as policy reflects the coupling of the dominant frame attached to the Victorian bushfire problem, which was one of asset protection rather than hazard/vulnerability reduction, with militaristic policy ideas, or ‘knowledge’, generated by Victoria’s militarised emergency services and disaster agencies. This knowledge rendered Victoria’s fire services receptive to a Civil Defence-based approach to public safety. Acceptable policy ideas and problem frames were shaped by a politics stream influenced by economic rationalism and individualism, but also expecting state-provided protection from disasters and a long-trend of outmigration to exurban areas that both financially and politically prevented effective vulnerability-reduction programs. In this context, the Stay or Go approach to fires represented a viable coupling of the streams, and was thus selected as Victoria’s public safety strategy in the early-1990s. This finding is in contrast to the representation of Stay or Go as a purely logical and intuitive reading of the evidence, as has been commonly claimed by other researchers and policymakers.
Chapter 1: Introduction

It is axiomatic that the surest means to reduce disaster-related losses is to not be ‘exposed to the hazard’ (AFAC 2001, p.2; Teague 2010a). Generally, this refers to a pre-hazard evacuation of an area considered at-risk of a natural or technological disaster. In the case of bushfire in Victoria, Australia where the hazard ‘often occur[s] without warning’, local and national legislation, socio-cultural factors and transport infrastructure limited the feasibility of such a safety strategy (AFAC 2001, p.2; Emergency Management Act 1986 (Vic); Esplin 2009; 2010; Packham 1995; Tyler et al. 2012; Tyler & Fairbrother 2013). These constraints saw the preferred public safety strategy for Victorian bushfires emphasise the need for residents in fire-prone areas to decide for themselves which of two state-supported strategies was most suitable for the individual and community’s circumstances: whether to “Prepare, Stay and Defend” a house from the bushfires, or to “Leave Early”. This is colloquially shortened to “Stay or Go”. Where residents follow this strategy, and become both ‘self-reliant and self-aware’ through engagement in pre-fire community training and education schemes, it is expected that they will have the ‘knowledge, motivation and capacity to manage the risks in their own communities as an active partner with fire management agencies’ (Hill 1998, p.38).

It is also an axiom that public policy should be based on evidence. The ‘Stay or Go’ approach to bushfire practised in Victoria was claimed to reflect bushfire ‘research, experience and history’ that found ‘leaving well before the fire-front approaches [an individual’s property] or preparing appropriately and staying with [the] house and actively defending [the] property is a safer strategy than fleeing at the last minute’ (AFAC 2009). The Stay or Go strategy was introduced in Victoria in the 1990s and across Australia in the early 2000s because it was considered a safe and practicable strategy for protecting people and property from bushfires. These claims, and the Stay or Go policy, were called into question by the 2009 Black Saturday bushfires which killed 173 people and destroyed 2,133 houses, the ninth deadliest wild/bushfire recorded globally.¹

Black Saturday led to Teague’s (2010a) 2009 Victorian Bushfires Royal Commission and a wave of fire-related research testing Stay or Go’s empirical and practical merits. Teague’s (2009a p.190) Interim Report emphasised the need to understand ‘what [bushfire research] studies establish and what they do not’, with this a reference to the two distinct strands of

¹ The list, in descending order, comprises the 1871 Peshtigo fires (USA, +1,700 deaths); 1936 Kursha-2 fires (USSR, 1,200 deaths); 1918 Cloquet fires (USA, 453 deaths); 1894 Great Hinckley fires (USA, 418 deaths); 1881 Thumb Fire (USA, 282 deaths); 1916 Matheson fires (Canada, 273 deaths); 1997 Indonesian fires (Indonesia, 240 deaths); 1987 Black Dragon fire (China, 213 deaths); 2009 Black Saturday fires (Australia, 173 deaths); and the 1825 Miramichi fire (Canada, 160 deaths).
bushfire research, the Commission noted. The first focused on ‘how buildings ignite and are destroyed, and the significance of the actions of occupants in building survivability’, and the second on the ‘circumstances in which civilians have been killed in bushfires’ (Teague 2009a, p.190). Tellingly, there were no comprehensive, combined studies of how buildings ignite and are destroyed, the significance of the actions of occupants in building survivability and the circumstances in which people survived or died during bushfires. Teague’s (2009a p.190) point regarding the need to understand studies ‘establish and what they do not’ is not repeated in the Commission’s Final Report. Instead, Teague (2010b pp.5-6) considered that ‘stay or go [was] based on the results of extensive research into bushfires’, and had a ‘foundation […] of credible research that analysed data on the way buildings had burnt and the circumstances in which people had died in previous bushfires’. The Commission noted ‘weaknesses in the way [Stay or Go] was applied’ and explained to the public, but found that the ‘central tenets of the stay or go policy remain[ed] sound’ despite the losses of Black Saturday (Teague 2010a, p.5).

Prior to Stay or Go being selected as public bushfire safety advice in the 1990s (Rhodes 2009), the research and evidence used to support the approach was limited. There was no longitudinal analysis of the survival strategies attempted by bushfire fatalities until Haynes and colleagues (2008a) and Tibbits and colleagues (2008). Instead, the Stay or Go approach was based on the two distinct strands of evidence identified in Teague (2009a; 2010a; 2010b). These strands were intertwined and claimed to produce a safer strategy than evacuating late, yet neither component had been conclusively demonstrated prior to the selection of Stay or Go as Victoria’s preferred public safety advice. The first – that ‘people protect houses’ – relied upon anecdotal accounts of fires, such as McArthur and Cheney’s (1967) and McArthur’s (1968) work on the 1967 Hobart/Black Tuesday bushfires, and Wilson and Ferguson’s (1984) and Ramsay and colleagues’ (1985; 1987) work on the 1983 Ash Wednesday bushfires. Barrow (1945) is credited as a key source of research for ‘people protect houses’, but does not make a case for residents working to defend their houses from bushfires. McArthur (1968) found that the chances of houses surviving bushfires was increased where ‘people under strong leadership [from fire-fighters] stayed and fought the fires’ and thus that ‘houses could be saved and people survive in an environment of fire’. McArthur (1968) did not support this claim with statistical data exploring the relationship between the presence of people and the survival of structures. This research gap – the second strand of evidence – was addressed by Wilson and Ferguson’s (1984) study of Mount Macedon, and Ramsay and colleagues’ (1985; 1987) survey of houses in the Otway Ranges during Ash Wednesday, though these works are undermined by the small sample size of houses defended by residents against bushfires. Wilson and Ferguson (1984 p.232) found that 14 per cent of structures in their sample were attended during the fires. Ramsay and colleagues (1985; 1987) reported that 1 per cent of houses were occupied throughout the fires and an additional 17 per cent protected by residents returning within 12 hours of the passage of the fire-front. These small sample sizes did, however, produce a strong correlation between the presence of people and the survival of houses during Ash Wednesday. Wilson and Ferguson (1984 p.232) found that only 12 of the 53 attended houses or 22.64 per cent of the
sample were lost during the fires, against 217 of the 385 unattended properties, or 56.36 per cent of the sample.

To strengthen their argument Wilson and Ferguson (1984 pp.232-234) added the caveats that only ‘able-bodied’ people should stay to defend during bushfires, and that some of the ‘unattended’ properties had been partially-defended by ‘neighbours, fire brigades [and] returning occupants’. Over 90 per cent of houses that were defended by ‘able-bodied’ people survived, and where partially-defended houses were discounted from the totals the survival rate of ‘unattended’ properties fell to 29.61 per cent. This strong empirical evidence for the idea that people could protect houses, however, did not constitute a firm evidence base for the ‘Stay or Go’ approach (see Leigh 2010a). Firstly, it was an anecdotal account (i.e., a report of experiences of a single fire event) that did not demonstrate its findings are generalizable. During the 1967 Hobart/Black Tuesday bushfires, which are also considered in Wilson and Ferguson’s (1984) report, more people died inside houses than in any other category (see McArthur & Cheney 1967). Nor does the work show that personal and structural survival is causally-related; there is a strong correlation between attendance and structural survival, and Wilson and Ferguson (1984) identified that the minority of Ash Wednesday-related deaths (seven) occurred inside houses. Wilson and Ferguson (1984) used these two findings to construct an argument for staying to defend by suggesting that staying with a property was safer than attempting to evacuate when threatened by fire. Wilson and Ferguson (1984 p.235) grouped their data to show that ‘[t]wice as many deaths occurred in vehicles or out in the open, than inside or near houses’, though the claim relied on combining 13 fire-fighter deaths from Ash Wednesday with civilian deaths into the ‘in vehicles or out in the open’ category. This was a curious methodological choice given the different risks, roles, and skills of fire-fighters and civilians, and Wilson and Ferguson’s (1984) focus on safety strategies for residents. Indeed, subsequent works consider civilian deaths only so as to better understand the contribution of Stay or Go to public bushfire safety (e.g., Blanchi et al. 2012; 2014; Haynes et al. 2008a; 2010; Tibbits et al. 2008). If civilian deaths on Ash Wednesday are considered in isolation from fire-fighter deaths Wilson and Ferguson’s (1984) findings of the efficacy of Stay or Go are undermined. The proportion of civilian deaths that occurred ‘inside houses’ and ‘near houses’ (n=15/46, 33 per cent of the total) roughly matched the proportion of civilian deaths that occurred ‘in vehicles’ or ‘near vehicles or on foot’ (n=18/46, 39 per cent of the total) from this one fire event. Given the contradictory findings from the 1967 Hobart bushfires, where more people died inside houses than in vehicles or near vehicles or on foot, the low level of variance in the location of bodies from Ash Wednesday did not represent a solid evidence base for a public safety policy.

Despite these issues, Wilson and Ferguson’s (1984) work was taken at face value by some subsequent authors, and the finding that ‘[t]wice as many deaths occurred in vehicles or out in the open’ used to support the claim that the ‘clearest lesson from [Ash Wednesday] was that late evacuation is extremely dangerous’ (e.g., Handmer & Tibbits 2005, pp.85; Roberts et
al. 2004, pp.9-10). It is accepted that being outside was a major cause of death during Ash Wednesday, but it was erroneous to conflate ‘being outside’ with late evacuation. Firstly, these sources appear to have ignored that Wilson and Ferguson (1984) had combined firefighter and civilian deaths in their analysis. Further, in Krusel and Petris (1992) it was shown that some people – at least four – that died while outside or in vehicles on Ash Wednesday were not evacuating late, but were attempting to take photographs of the fires, or mustering livestock.

When these details were added to the contradictory findings of the safety of remaining with a property during the 1967 Hobart/Black Tuesday and 1983 Ash Wednesday bushfires doubts emerged about the safety of staying to defend vis-à-vis late evacuation, and the clarity of the lessons provided by Ash Wednesday for Victoria’s public safety strategy. Thus, rather than focusing on fatality data from a single bushfire event, or comparing two such events, an effective public bushfire safety strategy required a longer-range comparison of bushfire-related deaths cognizant of individual’s behaviours and intentions.

The first attempts at a longitudinal study sensitive to individual behaviours and intentions were produced in Victoria in the late-2000s (Haynes et al. 2008a; Tibbits et al. 2008). Prior to these works studies had focused merely on long-term headcounts of deaths, like Hickman and Tarrant (1986 in Packham 1992), or the aforementioned anecdotal accounts of the Ash Wednesday and Hobart/Black Tuesday bushfires. Tibbits and colleagues (2008 pp.60-62, p.70) work addressed the research gap into ‘into the exact circumstances under which people died in bushfires, or the related issue of how houses or lost’, through analysis of a database comprised of ‘information in the print media [from] the [previous] 100 years and various government reports’. Despite the preliminary stage of their analysis at time of publication – i.e., having considered around 40 per cent of fatality data – Tibbits and colleagues (2008 p.62) considered that their analysis ‘convincingly [showed] the dangers of being caught outside during bushfires’, because 18 per cent of deaths occurred ‘inside a defendable property’ and 78 per cent ‘outside or in an undefendable refuge’.

Haynes and colleagues (2008a pp.1-3) built on Tibbits and colleagues’ (2008) work by using additional ‘reports, books and website sources’ as well as ‘documentary analysis of forensic, witness and police statements within coronial inquest reports’. Synergy between the coding and methodology of the two works was enhanced by their sharing several co-authors (see Haynes et al. 2008a; Tibbits et al. 2008). Haynes and colleagues (2008a p.1) agreed with Tibbits and colleagues (2008) that ‘analysis of the [bushfire fatality data from 1900-2008] clearly shows the dangers of being caught outside during a bushfire’. Tibbits and colleagues (2008 p.62) claimed their analysis went a way towards ‘substantiating the evidence’ for Stay or Go, and Haynes and colleagues (2008a p.1) that the ‘majority of fatalities occurred whilst victims flee the flames during late evacuations’. Haynes and colleagues (2008a p.15) work
showed 31.9 per cent \((n=176)\) of deaths occurred because of decision to evacuate ‘late’, while ‘defending property outside’ was the second most common activity at time of death (26.3 per cent, \(n=145\)).

Haynes and colleagues (2008a) subsequently periodised their data into two categories: deaths occurring 1900-1955 and 1956-2007. This periodization undermined their claim of the dangers of late evacuation. In the period 1900-1955 the danger of late evacuation relative to other survival strategies is high, with 37.3 per cent \((n=110)\) of deaths evacuating late, against 27.8 per cent \((n=82)\) ‘defending property outside’ (Haynes et al. 2008a). In the second period (1956-2007) the variance between these two categories declined significantly, such that late evacuation caused 25.7 per cent \((n=66)\) of deaths, and defending property outside 24.5 per cent \((n=63)\). Given the substantial socio-economic, demographic, cultural, technological and political change between these two periods the relevance of fatality data from the first period (1900-1955) to contemporary public safety strategies is limited. To a degree this is reflected in Haynes and colleagues’ (2008a p.15) acknowledgement that ‘fatalities in rural locations […] halved’ in the period 1955-2007, while ‘those occurring in suburban locations doubled’.

Miller and colleagues (1984 p.90) made a similar comment on demographic change, describing a shift in fire-fighting from ‘mainly grass-fire situations in open country’ to ‘semi-rural’ fire-fighting where ‘concentrations of dwellings were set among areas of high fuel-levels’ occurring from the 1960s onwards. Neither, however, engaged with how these changes affected individual survival strategies across the periods 1900-1955 and 1956-2007.

Economic, cultural and technological change obviously affected fire risk and fatalities by changing how fire-prone areas were used by individuals, and the survival strategies available. The ‘general realignment’ of Australia’s ‘political, economic, and social interests’ after the Second World War, including a growth in non-Anglo, non-white immigration combined with a new found appreciation of home-grown culture and the uniqueness of the Australian biota to produce a new ‘Australian identity’ (Pyne 2015, p.322). Pyne (2015 p.322) described this as the emergence of a ‘New Australian’ identity that contrasted with the previous ‘European Australian’ identity. The ‘European Australian’ identity was described as being simply a ‘compliant member of the British Empire’, and having caused significant ecological damage to Australia’s unique native flora and fauna (Miller et al. 1984; Milton et al. 1984; Pyne 2015, p.322). Part of the ‘New Australian’ identity was a desire to enjoy Australia’s native flora and fauna recreationally and to preserve it against future losses, with this leading to increased tourism and residence in fire-prone areas. This enjoyment was facilitated by a post-1960s surge in vehicle ownership that changed ‘late evacuation’ from an attempt to flee on foot through vegetation to an attempt to drive away from fires on roads. Further technological change, including the prevalence of air-conditioning and the use of less-flammable materials in vehicle construction again transformed late evacuation from the 1960s onwards such that it can be said that ‘late evacuation’ between 1900 and 1955 was scarcely comparable to late evacuation from the 1960s onwards (ABS 2015a; CRCS 2010; Lee 2003; McLennan c.2009;
Teague 2010a). The potential for an air-conditioned vehicle of fire-resistant construction to provide shelter from a fire-front, and the enhanced safety of cars over evacuations on foot, had been established by CSIRO in the 1970s (see e.g., Canberra Times 1972a; 1973a; 1977a). These developments led the thesis to focus on period 1955-2007 when assessing the evidence for the ‘Stay or Go’ approach as presented in Haynes and colleagues (2008a) as this period was considered more representative of contemporary conditions in fire-prone locations. When this period was considered in isolation the empirical evidence base for Stay or Go crumbled; Haynes and colleagues’ (2008a) data showed that the variance between the two main causes of death during bushfire (late evacuation and defending property outside) was 3 deaths, or 1.2 per cent of the sample, spread over half a century. Further, Haynes and colleagues (2008a, pp.14-15; 2010, p.190) found 10.5 per cent (n=27) of their data for this period could not be confidently coded into any of their classifications of activity at time of death, again undermining the conclusions to be drawn from their data.

When these issues were located in the context of the more general problems with the evidence for Stay or Go the basis for the strategy was severely weakened. Like Wilson and Ferguson (1984) Haynes and colleagues (2008a; 2010) presented headcounts of bushfire fatalities alone, without comparative data that would indicate the prevalence of each survival strategy among the general population. Without tallies of both the number of people surviving and dying after an attempt to (e.g.,) evacuate late the conclusions that can be drawn from such data are limited. From a purely headcount-based approach, for example, it can be argued that trying to defend a property was more dangerous survival strategy than evacuating late in the period 1956-2007. Haynes and colleagues (2008a pp.14-15) showed that 66 people died attempting to evacuate late, compared with 63 people died while ‘defending property outside’ and an additional 5 that died while ‘actively defending’ or during ‘meagre and unsuccessful attempts to defend’ for a total of 68. The CFA (CFA Strahan 2011a p.17) did begin to produce comparative data in the 2000s but does not appear to have made this available to Haynes and colleagues (2008a; 2010), nor to have combined it with bushfire-related fatality statistics to arrive at a better estimate of the dangers of late evacuation vis-à-vis other survival strategies. From surveys completed between 2002 and 2008 CFA (CFA Strahan 2011a, p.17) found that 20-50 per cent of respondents intended to ‘Stay and defend property throughout fire’, while intentions that were more likely to suggest late evacuation – ‘wait and see but leave if threatened’; ‘leave as soon as aware of fire that could threaten’ – comprised 30-54 per cent and 12-22 per cent of responses, respectively. These responses were difficult to interpret due to the wide range reported, but did suggest that the range intending to evacuate late (42-76 per cent of respondents) was likely higher than the total intending to Stay and Defend (20-30 per cent) prior to the 2009 Black Saturday bushfires (CFA Strahan 2011a).

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2 In this analysis the 26 deaths ‘inside a defendable property’ that were ‘passively sheltering’ and 4 deaths inside a property whose activities were ‘unknown’ have not been counted, because they were not deemed to be defending the property. A case could be made for including them under a banner of ‘remaining with a property during bushfires’, and thus the danger of remaining in a fire-ground vis-à-vis attempting to evacuate late would be substantially increased.
The narrow margins between the two main causes of death reported in Haynes and colleagues (2008a) are made more concerning by inconsistencies and inaccuracies in bushfire fatality statistics. Different death-tolls were noted across sources, and attributed to differences in coding frameworks, researcher interpretation, decisions to include/exclude fire-fighters from samples, and errors in transcription. The latter two issues were encountered most frequently, with the exclusion of fire-fighters in Haynes and colleagues (2008a; 2010) and associated works (e.g., Blanchi et al. 2012; 2014; Tibbits et al. 2008) led to variance with the work of (e.g.,) Wilson and Ferguson (1984) regarding the death toll from Ash Wednesday. Moreover, distinguishing fire-fighter and non-fire-fighter deaths can be problematic. In the case of the 2005 Lower Eyre Peninsula/Wangary bushfires, for example, Haynes and colleagues (2008a; 2010) note no fire-fighter deaths despite two of the deceased – Trent Alan Murnane and Neil George Richardson – being ‘members of the [South Australian] Country Fire Service (CFS)’ (Schapel 2007, p.i, pp.xi-xiii, p.116). Schapel (2007, p.i, pp.xi-xii, p.116) did not consider the pair as official agents of the CFS during these fires, but they were identified (and memorialised) as fire-fighters by both CFS (n.d.) and Volunteer Magazine (2005, p.5). In Haynes and colleagues (2008a p.20) these deaths were considered as civilians, and attributed to ‘late evacuation’; if they had been considered fire-fighters the variance between the two leading causes of death (late evacuation and defending property outside) in Haynes and colleagues’ (2008a) table would have declined to a single death in the period 1956-2007/08.

Differences between reported death-tolls from individual fire events likewise made the slender margin reported in Haynes and colleagues (2008a) a concern. Such differences or ‘distortions’ are a problem across disaster research, and reflect different ‘definitions, reporting criteria, and practices for recording dates, places, conditions, contributing factors and consequences’ of disaster events (Glickman et al. 1992, p.29; Quarantelli 2001, p.329). Taking the example of Ash Wednesday, reported death-tolls range from 71 (Pyne 2015) to 83 (Handmer & Tibbits 2005). For the 1969 Lara bushfires, Haynes and colleagues (2008a) reported 17 deaths while Luke and McArthur (1978, p.231, p.310) suggested both 18 and 23 deaths on different pages. Packham (1995), similarly, claimed both 53 and 62 deaths during the 1967 Hobart/Black Tuesday bushfires, perhaps following McArthur’s (1968) distinction between deaths due to ‘natural causes’ and those more directly attributable to the fires. For their part, Haynes and colleagues (2008a p.2) coded all of their total of 64 deaths from Black Tuesday as civilians, despite McArthur (1968) classified ‘a few’ of the deaths on Black Tuesday as fire-fighters.

These issues with the evidence-base of ‘Stay or Go’ led to it being analysed as a (socially-constructed) outcome of the ‘coupling’ of politics, problem-frames and available policy alternatives (Kingdon 2013). Alternatively, ‘knowledge’ and social and political power, as much as evidence, were key factors in the selection of ‘Stay or Go’ in Victoria (Dawkins...
The highly militarised ‘professional knowledge’ of disaster planning and management personnel, and the social and political power resulting from this expertise, led to perceptual filters that influenced the problem-frames and policy solutions considered in disaster-related policymaking. As a result, an asset-protection frame and associated policy solutions were accepted as the most effective means to prevent, mitigate and respond to disasters. Other problem-frames and policy solutions, such as a vulnerability-reduction frame and policies to restrict development in fire-prone areas, were difficult to implement due to constraints in Kingdon’s (2013) politics stream. These constraints stemmed from the power and influence of senior personnel in disaster-relevant organisations, and more general socio-economic, demographic and cultural pressures to develop and utilise fire-prone areas. Therefore, the state put few controls in place to restrict development and, by the 1960s, the presence of people and property in fire-prone areas exceeded the capacity of the formal fire services. In line with the prevailing militarism guiding disaster planning and management, the result was a push for a Civil Defence-like approach to public safety which gained momentum as development (and thus vulnerability) continued in the 1970s. There was a notable increase in policymakers’ receptiveness to such ideas after 1974’s Cyclone Tracy due to noted lack of public understanding of effective disaster response (Canberra Times 1975a). These were major departures from the community’s pre-1960s fire management role and responsibilities, which had typically focused on community members’ rights and duties regarding fire prevention, such as penalties for the careless or malicious use of fire, and mitigation that included statutory requirements for fuel management. Roles and associated responsibilities had been formalised through various fire-related Acts of Parliament passed in Victoria such as the Fire Brigades’ Acts, Forests Acts, Bushfire Brigades’ Acts, and Country Fire Authority Acts. At the same time, though, the selection of Stay or Go as policy was a continuation of the more general theme (or developmental pathway) taken in Victorian fire management as it sought to centralise and control the community as a component in Victoria’s bushfire management strategy. The centralisation and militarising of the community’s roles and responsibilities would be facilitated through the use of a Civil Defence-like approach to the training and education regarding fire safety.

The theoretical bases for militarising the public’s role during disasters were well-established after the Second World War. Dynes (1983; 1994, p.142), Quarantelli (1987; 1992) and Quarantelli and colleagues (1986) noted the effects of the American military’s leadership of post-Second World War disaster research and practice, with this model coming to exert an almost ‘universal’ influence on disaster-relevant organisations in other countries. The utility of Civil Defence as a guiding principle for public safety reflected America’s defining the threat of Soviet or proxy attack on the US mainland – potentially involving nuclear weapons – as the gravest risk facing the country (Quarantelli 1987). It was expected that the public would panic (or ‘react badly’) in response to such an attack, and that this ‘natural tendency’ could be mitigated through the ‘organisation, training integration and coordination of both the general populace and the formal passive defence forces’ before the ‘stress and chaos’ of a
disaster event (Fritz & Mathewson 1957, p.90; Quarantelli 1987, p.288; Takeda & Helms 2006, p.205). To achieve this, it was necessary to ‘dramatically change habitual patterns of behaviour’, and to create new ‘ad-hoc structures’ to guide public responses to disasters through training and education (Dynes 1983, pp.656-658) These ideas permeated into disaster theory and practice more generally through the ‘doctrine of dual-use’, whereby a panicked reaction was also expected of the public in response to a natural disaster (Dynes 1994, pp.141-143). Thus, planning for both natural and military emergencies understood the public as something that could be trained and educated to overcome its panicked, ‘inept civilian’ form so as to ‘fit into’ central disaster plans ‘as if they [were] part of a rational clockwork’ (Dynes 1983, p.658).

Similar principles and concerns guided the early steps towards ‘Stay or Go’. The earliest example of an official Civil Defence-like approach to public bushfire safety encountered in the literature dates to the 1960s, when the Commonwealth Forestry and Timber Bureau (in Good Neighbour 1962a) followed Luke (1961) and advocated at-risk populations staying and defending their property during bushfires. The advice was issued in an attempt to reduce a panicked-induced attempt to evacuate late, which was considered the riskiest survival strategy in terms of human and structural outcomes during bushfires (The Age 1970a; AWW 1980b; Good Neighbour 1962a). The post-1960s advice identified ‘[b]lind panic’ among residents as the ‘greatest menace in bushfire’, and sought to reduce the risk of a panic-induced late evacuation by changing the public’s behaviour during bushfires (Good Neighbour 1962a). At the core these informal efforts to change behaviour were based on a rational assumption that through a ‘little quick action’ residents could ‘easily put out’ fires threatening their homes, thereby protecting life and property (Good Neighbour 1962a). Good Neighbour (1962a) intimated that it was ‘almost impossible to be killed in a fire’ if residents ‘remember[ed] a few common-sense precautions’ such as managing fuels around the property, excluding and extinguishing embers affecting the property, and remaining calm. Such advice was repeated in the 1970s following the amalgamation of the Forestry and Timber Bureau with CSIRO as the latter sought to address ‘misconceptions’ about bushfires that caused ‘many persons to panic and sometimes flee a safe refuge’ (Canberra Times 1973a). These efforts to change public behaviour in response to bushfire continued into the 1980s when ‘panic and ignorance’ were identified as the major risks to public safety during bushfires that could be addressed through ‘sensible knowledge’ (AWW 1980b; Canberra Times 1980d; 1982a). This ‘sensible knowledge’ was, essentially, the basic tenets of the ‘Prepare, Stay and Defend’ aspect of ‘Stay or Go’ in that residents were advised not to panic, to prepare themselves and their properties for bushfires, and that defended houses would almost certainly provide a safe refuge during bushfires (AWW 1980b; Canberra Times 1980d). Alternatively, efforts were being made to address the public’s propensity to panic and succumb to ‘widespread maladaptive behaviour’, i.e., to evacuate late, and to transform the ‘inept civilian’ into a semi-capable fire-fighter (Dynes 1983, pp.656-658; Fritz & Mathewson 1957; Takeda & Helms 2006).
These training and education programs were refined and formalised into public policy after the 1983 Ash Wednesday bushfires. The fires highlighted deficiencies in public understanding of its role and responsibilities during bushfires, and focused policymakers’ attention on the possibility of reducing losses by ‘establishing and supporting […] community groups’ (Krusel & Petris 1992, p.3). Krusel and Petris’ (1992) analysis tapped into a growing research current that suggested the benefits of a community-based approach to community fire safety, including the establishment of Neighbourhood Watch-like groups focused on the local fire problem (e.g., Jones 1987; Silberbauer 1990; Whelan 1987). These ideas also fit wider changes in Australian politics produced by the growing influence of economic rationalism/neoliberalism as guiding principles for policymaking (Brett 2011; Bryant 2015; Macintyre 2016; Pilger 1992). The result was a suite of CFA-led training and education programs that targeted both community groups and individuals, each working to build human and social capital and reinforce the core messages of the need for self-reliance and the dangers of late evacuation (e.g., Community Fireguard, Bushfire Blitz and FireReady Victoria; see Boura 1998; Hill 1998; Packham 1995; Rhodes 2009). Such programs were lauded by the United Nations (UN 1996a, pp.23-24) for having replaced the traditional “top-down” approach to public safety where emergency services would ‘[tell] people what to do’ with schemes that involved ‘facilitators work[ing] with groups to enable them to choose the most appropriate strategies’ for local circumstances, and subsequently ‘develop them for their own use’. Such praise, like the CFA’s (2008a p.8) view of its efforts as ‘encourag[ing] and facilitat[ing] people […] to become self-reliant by developing the knowledge, skills and resources to be proactive in managing their health and safety’ during bushfires ignored that the underlying logic of the CFA’s programs closely resembled a Civil Defence approach to public safety that had been challenged in research since the 1970s.

The military’s diminishing control over disaster research in the 1960s saw new perspectives on disaster planning and management and on public behaviour during emergencies develop from the late-1960s onwards (Quarantelli et al. 1986). Criticisms of the notion of public panic, and of Civil Defence and militarism as a means to reduce panic, as well as the response-based focus to disaster emerged from the social sciences, geography and psychology. Hazard geographers and other disciplines worked to redefine disasters as ‘Acts of Human Intervention’ where vulnerability and losses resulted from socio-economic, cultural, political and technological decisions that led to human development in hazard-prone locations, rather than indiscriminate ‘Acts of God’ (e.g., Barton 1969; Clausen et al. 1978; Hewitt & Burton 1971; White & Haas 1975).

At the same time doubts of the public’s propensity to panic and the associated need to impose social control through Civil Defence programs developed. New understandings of Fritz and Mathewson’s (1957) work on emergent behaviour during disasters took more Quarantelli-like (1954) belief in the benefits of flexibly integrating emergent groups and energies during disasters (see Dynes 1983; Quarantelli 1987; Quarantelli et al. 1980). Sorensen (2000 p.121)
summarised this research current as challenging the idea of public panic, the ‘most common myth’ of disaster theory, ‘except in situations where there is closed physical space, an immediate and clear source of death, and where escape routes are available but obviously not accessible to everyone’ (See also Quarantelli 1984; Quarantelli et al. 1980). These criteria are similar to the situations facing bushfire-threatened individuals, but the evidence that such panic can be reduced through Civil Defence-like training and education at the community-level is not conclusive (Sorensen 2000; Teague 2010a). This is especially the case when, as in the Stay or Go strategy, checks on understanding of, and conformity with, the message and triggers for action can be lacking (Drabek & Stephenson 1971; Kahneman & Tversky 1979; Katona 1951; 1960; Mileti & Beck 1975).

To be sure evidence from the 2009 Black Saturday bushfires indicated that those engaged in the Community Fireguard scheme reported lower levels of panic and better understanding of safer responses to the threat, but the effectiveness of the CFA’s programs in promoting behavioural change, and thus enhancing public bushfire safety, was questioned (CRCS 2010). The CFA’s schemes were ‘limited in reach and homogeneous across diverse communities’, such that their effects on large segments of at-risk residents was minimal; the majority (58 per cent) of victims on Black Saturday had ‘made no preparations’ despite repeated warnings of the threat, while a minority (47 per cent) had any fire-response plan (CFA 2009c; 2010a; CRCS 2010, p.19; Fairbrother et al. 2010; Sturzenegger & Hayes 2011, p.57). As emphasising the importance of preparedness and having a plan was at the foundation of Stay or Go criticisms were levelled at the strategy: being ineffective in practice; simplistic and under-emphasising the deep complexities and nuance; the dangers to fire-fighters resulting from civilians remaining in fire-grounds; and/or its being unproven as a public safety strategy (CFA Sweeney 2009; Griffith 2012; Manne 2011; UFUA 2009; 2010a). Against these criticisms a groundswell of support for Stay or Go argued that ‘almost every loss’ in bushfire was a result of ‘apathy, ignorance and confused understanding’, rather than a fault in Stay or Go itself or its underlying Civil Defence-like logic (AFAC 2009; CRCS 2010; Teague 2010a; Webster 2012).

Accusations of public ‘apathy and ignorance’ towards bushfire are a common theme of post-fire investigations from Stretton (1939 p.5) through Webster (2012 p.xi-xii). By framing criticisms in this way, the core tensions between a rationalist and constructivist view of human decision-making and behaviour are obscured. The rationalist assumption underpinning a label of ‘apathy and ignorance’ is that were the state’s core message better explained and/or the public to realise its role and responsibilities in fire management the problem would be resolved despite disaster, social science and psychological research to the contrary. The idea of rationality in individual decision-making has long been challenged. Katona (1951 p.52; 1960) argued that individuals preferred ‘receiv[ing] positive outcomes early [and] to yield to temptations and heavily discount future outcomes’ (Johnson et al. 2012, p.492; Kahneman 2011; Kahneman & Tversky 1979). Further, Kahneman and Tversky (1979; 2000, p.xiii)
found that ‘losses loom larger than gains’ in decision-making. In the case of graziers and the ‘New Australian’ cultural movement the ‘positive outcomes’ of careless or malicious land-rejuvenation burns, or refusing to sacrifice ‘flora and fauna’ for future fire management outcomes, respectively, are evidence of divergence between state and community goals that are not easily addressed through simple dismissals of them as ‘apathy, ignorance, etc.,’.

Further, defining failures in the strategy as ‘apathy and/or ignorance’ does little to identify or address the factors underpinning such apathy and/or ignorance, such as the possible effect of goal conflict between stakeholders. In Stretton’s (1939; 1944; 1946) three Royal Commissions, for example, the actions of graziers and loggers were defined as malicious or careless because of the persistent problems of illegal fire-lighting and of insufficient fuel management. Little effort was made to understand the socio-economic and/or cultural factors that underpinned the action, such as the marginal economic position of graziers, or the deficient legal framework regarding loggers’ duties in the forests that motivated their ‘apathy and/or ignorance’. Similarly, in the late-1960s the Federal Government did little to integrate the ‘New Australian’ goals of fostering and protecting Australia’s native flora and fauna with fire management goals. Instead, the Federal Government urged the community to ‘sacrifice flora and fauna’ to reduce fire risk (Canberra Times 1969c). The conflict between state and community goals is ignored with the state’s goals established as taking precedence. The effects of such attitudes on community engagement are ignored in fire management in place of the contested, highly rational view that a combination of sanction and prompting can produce the desired action.

This brief account of Stay or Go and its underlying tensions offers a better explanation of the strategy’s selection as public bushfire safety advice in Victoria than a purely evidence-based view. Rather than being an intuitive product of Victoria’s bushfire history, evidence and research the strategy developed slowly in response to changes in the policy, problem and politics streams. These developments reflected wider socio-economic, demographic, cultural, technological and political change that affected the relationship between people, property and hazardous places. Generally, these developments increased the vulnerability of people and property to fires which necessitated the progressive militarisation of Victoria’s fire management strategy in an attempt to mitigate losses. These factors led to the growing influence of the Civil Defence-like Stay and Defend strategy in the 1960s and, when the 1983 Ash Wednesday bushfires opened a policy window, the selection of Stay or Go as official policy. Stay or Go is argued to have been selected as policy due to it fitting both the problem-frame (asset-protection) and constraints in the politics stream (social and political power of militaristic disaster-relevant organisations; pressure to develop fire-prone areas). Thus, to understand how Stay or Go comes to be selected as Victoria’s public safety strategy it is necessary to understand the macro-social shifts over the period c.1851 to 1983 which constrained and encouraged the coupling of problems and policies conducive to the selection of Stay or Go in the 1990s.
1.1 Research Rationale

This research addressed the research gap caused by a focus on individual and ‘community’ outcomes to validate or challenge Stay or Go by considering the approach’s emergence and selection as public policy (see e.g., CFA Strahan 2007; 2009; CRCS 2010; Gledhill 2003; 2008; Haynes et al. 2008a; Whittaker et al. 2009; 2013). Outside of a commissioned history of the Country Fire Authority (CFA) by Murray and White (1995) there has been little focus on the institutions, and institutional context, that promoted ‘Stay or Go’ as a policy alternative in Victoria. Where research has approached the development of ‘Stay or Go’ from a historical perspective, as in Handmer and Tibbits’ (2005), this appears to have been done with a view to document the major research and/or evidence contributions to the approach, rather than considering the wider demographic, socio-cultural, and technological factors that framed this research and evidence. Pyne’s (2015) *Fire History of Australia* provides a good overview of the developments in ideas and approaches involved in fire management in Victoria, without taking a critical lens to the evidence for ‘Stay or Go’, or exploring Victoria’s public bushfire safety programs in terms of public policy processes. The first edition of Pyne’s ([1991] 2015) work has, also, been described as an ‘historian’s colourful if not very accurate account of the role of fire in historical and pre-historical Australia’, that should be treated with care ‘before making serious use’ of the work (Packham 1992, p.12). The thesis therefore eschewed the more general research framework of identifying how best to provide advice to residents ‘in a way that engages them’, and instead considered the foundational assumptions, principles, and macro-social factors that led to Stay or Go as public policy in Victoria (Teague 2010a, p.5). These are explored using the developmental pathways and narrative methods of historical sociology, where continuities and change in Victoria’s bushfire strategy are presented as stories involving multiple distinct developmental pathways that come together during ‘conjunctural events’ to maintain or divert the direction of such pathways (Aminzade 1992, p.466; Goldstone 1998a; 1998b; Mahoney 2000).

The principal pathways considered reflect principles guiding the roles and responsibilities of Victoria’s fire services and community, with these found to be influenced by (conjunctural) events in antecedent socio-economic, demographic, cultural, scientific/technological and political pathways. Conjunctural events in these pathways served either to push Victoria’s fire services and community further down their existing path or divert them onto another course. The historical sociological approach allows for the effects of these conjunctural events to be understood as the ‘unfolding of social action in a manner sensitive to the order in which [the] events occur[red]’ (Aminzade 1992, pp.457-458; Lachmann 2013, p.2; Mahoney & Rueschemeyer 2009b; Tilly 1980). This goes beyond a simplistic argument that ‘the past influences the future’ by stressing that the temporal characteristics of events, such as ‘when’ they happen within a sequence, affects ‘how they happen’, and their effects on the overall
pathway (Mahoney 2000, pp.509-510; Tilly 1989). Mahoney (2000 pp.510-511) found, for example, that events occurring early in a pathway have a greater effect on outcomes than those occurring later because ‘once processes are set in motion and begin tracking a particular outcome [they] tend to stay in motion to track this outcome’. Aminzade (1992 p.463) likewise described previous events as ‘forces’ that could ‘impinge [on] future choice opportunities’ by ‘sustain[ing] movement along the chosen path’. Aminzade (1992 p.458) extended the temporal toolkit for historical sociology by emphasising the importance of (and differences between) events’ ‘trajectories’, ‘cycles’, ‘pace’ and ‘duration’ on outcomes. Of these ‘trajectory’, ‘duration’ and ‘pace’ were found to be most relevant to the thesis. Aminzade (1992, pp.462-643) defined ‘trajectories’ as ‘paths […] the sequential order of events’ where ‘past choices and temporally-remote events can help to explain subsequent paths of development and […] outcomes’. Again, avoiding the trap of ‘the past influences the future’, Aminzade (1992 p.464) stressed the importance of ‘duration’ and ‘pace’ in producing a ‘careful reconstruction of past events’ and thus explaining their effects on events. Duration and pace are considered together in Aminzade (1992, p.459) as the former refers to the ‘amount of time elapsed for a given event or sequence of events’, and the latter the ‘number of events in a given amount of time’. Using the ‘objective’ duration of people’s lives, Aminzade (1992 pp.459-461) followed Tilly (1980; 1989) in finding the ‘consequences’ of events differed per their ‘fast’ or ‘slow’ pace, and/or ‘long’ or ‘short’ duration (see also Smelser 1963; Tilly 1980; 1989).

A historical-sociological approach is also necessary for bushfire research to delve deeper into the core issues affecting public safety during bushfire, and how actors’ understanding of these problems affects the solutions (or policies) selected to address them. By applying historical sociological methods to the selection of Stay or Go as Victoria’s public safety strategy in the 1990s, the policy’s accession can be readily understood despite the lack of evidence of its efficacy. The approach taken in the thesis was novel in that it explores continuities and changes in the developmental pathways of Victoria’s fire services and community as stories that draw attention to the effects of the temporal characteristics of events on outcomes. As in Aminzade (1992) and Mahoney (2000), it is suggested that an event early in the sequence – the selection of a military-like model for Victoria’s fire services – had a major effect on events later in the sequence, including the selection of Stay or Go. The selection of a militaristic method of organising Victoria’s fire services reflected prevailing understandings of how best to prepare for and respond to fires, and was a response to developmental pressures to utilise Victoria’s fire-prone areas in the 1850s. The increase in people and property at-risk of fire, and a consistent belief in military-inspired methods of organising for and responding to disasters would push Victoria’s fire services further down this pathway, as would fast-paced chains of linked events over short durations such as a spate of destructive and/or deadly bushfires. This can be seen in the 1926, 1932, 1936, 1939 and 1944 bushfires leading to the creation of the CFA, a central body modelled after the Second World War-era ‘G’ Committee for organising Victoria’s volunteer fire-fighters in bush and country areas. World War Two also demonstrated the effectiveness of training and educating the public per
the principles of Civil Defence to reduce losses caused by wartime or natural emergencies, with these ideas influencing public bushfire safety advice from the early-1960s onwards. The Second World War, then, is considered a key conjunctural event between the developmental pathways of Victoria’s fire services and community that shifted both towards Stay or Go. After this conjunctural event the pathway of the community’s roles and responsibilities in fire management diverted towards self-reliance (or self-protection) based on Civil Defence-like principles, with efforts to train and educate the community becoming more common in public safety advice up to the 1983 Ash Wednesday bushfires and resulting post-fire investigations. This led to Stay or Go being selected as Victoria’s preferred public safety strategy in the 1990s.

The thesis integrates these ‘stories’ into Kingdon’s ([1984] 2013) Multiple Streams framework for policymaking to offer a unique explanation for the selection of Stay or Go as public policy in Victoria in the 1990s. As the Productivity Commission of the Australian Federal Government (PCA 2010a; 2010b) heard numerous times during its roundtable discussions, ‘evidence’ is only one component in policy decisions that competes with ‘knowledge’, ‘expertise’, and feasibility in determining policy outcomes. ‘Knowledge’, ‘expertise’ and feasibility are analogous to Kingdon’s (2013) concepts of the ‘problem’, ‘policy’ and ‘politics’ streams. In Kingdon (2013) problems are not objective phenomenon, and instead depend on the definitions and frames used to identify them which are mediated through ‘knowledge’; policies and policy solutions are developed by experts and reflect the ‘expertise’ of the actors that come to be involved in policy development; and politics reflects the constraints on what policies and problems are technologically, politically, culturally and/or financially feasible for policymakers to consider. When a ‘policy window’ or opportunity for policy change occurs actors seek to ‘couple’ problem definitions/frames with policy ideas/solutions, and to demonstrate that their coupling is not constrained by factors in the politics stream. Using this framework, the thesis argued that Stay or Go was the outcome of the asset-protection problem-frame adopted as Victoria’s bushfire management strategy coupled with the militaristic expertise of senior personnel in disaster-relevant organisations. This coupling was pushed to prominence in the governmental agenda after the 1983 Ash Wednesday bushfires opened a ‘policy window’ and, as it was feasible given the prevailing constraints in the politics stream, came to be accepted as Victoria’s public bushfire safety strategy in the 1990s.

1.2 Overview of Methodology

The thesis’ methodology was based on a mixture of document analysis, the ‘narrative’ and path-dependence components of historical sociology, and Kingdon’s (2013) theories of public policymaking. The research began with the selection and analysis of documents
related to bushfire management in Victoria, together with the demographic, political, socio-economic and cultural development of the state, as well as a wider review of documents relating to disaster theory and practice. These resources provided the dataset for the development of historical sociology-informed ‘stories’ of Victoria’s fire services and community. These stories allowed the thesis to draw attention to key and conjunctural events in the fire services’ and community’s developmental pathways that diverted the pathways’ course, and thus changed the fire services’ and community’s roles and responsibilities in fire management.

The stories also helped the thesis to provide the context for policy change in Victoria’s fire management strategy by explaining how key and conjunctural events together with wider societal forces allowed for the coupling of Kingdon’s (2013) ‘problem’ ‘politics’ and ‘policy’ streams. These theoretical and methodological tools helped explore and explain the ‘messiness’ of Victoria’s bushfire-related policymaking, where evidence and interpretations of evidence, lobbies and interest groups, and conflicting or contradictory goals compete for prominence in the governmental agenda to produce a less-than-rational policymaking process (John 2012, p.159; Kingdon 2013). Thus, policymaking is considered as much a product of the ‘stories’ told of the relationship between problems, solutions and evidence as it is of the evidence itself (Fischer 2003; Hajer 1995; Mahoney 2000; Kingdon 2013; Reich 1988; Somers 1996, p.54, p.64). This argument provided an effective way of integrating the document analysis, historical sociological and policymaking theoretical frames into a coherent analysis of how problems, policies, evidence and politics coalesced to form the basis for the adoption of ‘Stay or Go’ as public safety advice in Victoria, with the 1983 Ash Wednesday bushfires considered the opportunity or ‘policy-window’ for policy change.

1.2.1 Document Analysis

The thesis relied on the identification and analysis of relevant documents as its dataset. To build the ‘stories’ of the development of the roles and responsibilities of Victoria’s bushfire-fighting organisations and ‘community’ preference was held for primary source materials, particularly materials produced by newspapers or Federal, state or local governments. Where necessary these were supplemented with historical and/or narrative accounts of events, though the findings and arguments made in these were treated with more caution than the primary materials due to the understanding that later knowledge can influence explanations of historical events and phenomenon (e.g., Archer 2003; 2007; Delanty & Isin 2003 p.1). Newspapers were selected from those available through the National Library of Australia’s ‘Trove’ online digitised collection. Typically, this involved a keyword search – often ‘bushfire’ ‘bush’ and/or ‘fire’, the name of a fire victim, the name of a fire, or a reference to a fire management body (e.g., ‘CFA’; ‘Country Fire Authority’; ‘bush fire brigade’; or some
Sources were rejected if they were cross-publications of articles already considered, not directly concerned with the Victorian system, and/or due to illegibility. Further newspaper articles were identified by searching through articles published +/- two weeks from the date of a specific fire. In line with the Victorian focus of the thesis preference was given to materials produced in Victoria.

Despite these efforts, it is possible that the dataset was constrained by availability and possible errors in source rejection (e.g., rejecting two apparently identical articles that contained slightly different understandings of events), and as such may not represent a full picture of contemporary opinions/views of the Victorian fire management system. This is not felt to significantly prejudice the thesis, as the newspaper archive research was only intended to provide an overview of the development of Victoria’s bushfire problems and policies, and the effects of political constraints on both.

Primary materials produced by government agencies, particularly the Forests Commission, the CFA and Victorian state government were sourced through web searches of government websites. These materials, together with official post-fire investigations and Coronal inquests were given prominence in data collection due to their status as legal documents, and their focus on finding flaws and making recommendations of the existing bushfire management system. Further primary sources, such as biographies of prominent fire-related individuals or social histories of fire-affected communities, were located through the bibliographies of other works, and/or through personal recommendations from colleagues.

Secondary sources were primarily selected from a bibliography prepared by the Bushfire Cooperative Research Centre-affiliated bushfire research team at the Centre for Sustainable Organisations and Work, RMIT. Subsequent secondary sources were identified through a periodic Google Scholar search of articles citing materials already used, and a snowball-sampling like review of bibliographies to garner additional relevant works. These works were found to support the selection of a historical-sociological approach as the bulk of materials considered were of an ahistorical sociological or psychological nature. The focus, typically, was on individual- or community-level actions that led to bushfire related deaths (or survival), rather than a macro-level analysis of ‘Stay or Go’ itself. There were some exceptions to this (e.g., Handmer & Tibbits 2005; Murray & White 1995; Pyne 2015), yet these did not link their historical findings into public policymaking processes, with ‘Stay or Go’ instead considered an outcome of previous experience, research and/or evidence of the merits of the approach, rather than as a public policy compromise between competing problem definitions, policy solutions, and political constraints.
From this collection and analysis a series of periodised, historical accounts of the development of bushfire management in Victoria were produced. These were presented through the historical narrative approach common in historical sociology. At times, the boundaries set by the periods were porous, especially where the argument was helped by adopting a more thematic approach over a strictly periodised account. An example of this can be seen in chapters 4 and 5, where the CFA’s operational use of new technologies in the 1960s and 1970s in chapter 4 might seem out of place given the chapter’s focus on the period to 1960, and chapter 5’s discussion of events in the 1960s and 1970s. This decision was made on the basis that chapter 4 provided an overview of the increasing technological and organisational complexity of the CFA’s activities, while chapter 5 focused more on the social, cultural and ecological implications of the technologisation of Victoria’s bushfire management.

1.2.2 Public Policymaking

Given that public safety during natural and technological disasters is generally the role or responsibility of the state it is necessary to analyse disaster planning and management both as a function of the state, and as an outcome of public policymaking. The former is considered as part of the fire services sequence, while the latter represents a common thread to all primary and antecedent sequences covered in the thesis. Kingdon’s (2013) Multiple Streams (MS) framework was selected as the primary theoretical lens for this analysis, with MS supported where appropriate by aspects of Sabatier (1988) and Sabatier and Jenkins-Smith’s (1988) Advocacy Coalition Framework (ACF) and Baumgartner and Jones’ (2009 [1993]) Punctuated-Equilibrium Theory (PET). Kingdon’s (2013) framework helped organise and structure the argument by defining three key variables to focus on to explain the selection of ‘Stay or Go’ as public safety advice (and policy) in Victoria. These were the ‘problem’, ‘policy’, and ‘politics’ streams, which refer to the problems (or definitions, understanding or frames of problems) that vie for attention on the governmental agenda; the ‘policy’ ideas, solutions and alternatives developed by stakeholders that are held ready for a suitable problem/problem-frame to emerge (and then vie for attention on the governmental agenda); and the ‘political factors (e.g., public opinion; technological and/or financial feasibility; and ideology of the dominant faction in government) that diverts or draws attention to problems, problem-frames, or policies and thereby raises or lowers their prominence on the governmental agenda.

Kingdon’s (2013) model is explored in more detail in the next chapter, with this section instead focusing on why Kingdon’s framework was selected as the preferred model of policymaking, and how it was used in the thesis. The primary factor that led to the selection of Kingdon’s (2013 p.2, p.79) framework was its simplicity and accepting that policy change
can be incremental, but can also result from an idea becoming ‘hot’ and suddenly ‘taking off’. The latter form of change takes place when pressing problems, or prevailing definitions (frames) of problems, are ‘coupled’ with policy solutions that are politically feasible, with the ‘coupling’ generally performed by policy entrepreneurs (Kingdon 2013). Each concept is relatively easily defined: problems are those issues that attract the attention of policymakers, policy communities or the public; policies are the ideas, solutions and alternatives developed by policy communities, which are state and non-state actors and groups involved in generating proposals for policymaking; with politics referring to the factors that constrain or motivate policymakers action, such as public opinion, financial and technological constraints, or the ideological nature of the dominant faction in government. Policy entrepreneurs are actors ‘willing to invest their resources in pushing their pet proposals’ to policymakers (Kingdon 2013 p.108). The Advocacy Coalition Framework (AFC), meanwhile, used a less-accessible vocabulary, including ‘policy venues’, ‘relatively stable parameters’, ‘policy subsystems’, ‘advocacy coalitions’, ‘policy brokers’, ‘deep-core’, ‘policy-core’ and ‘secondary’ beliefs, etc. (Weible & Sabatier 2006). These are broadly similar to Kingdon’s (2013) concepts, with ‘venues’ analogous to Kingdon’s problem definition/framing concept; policy brokers to policy entrepreneurs (etc.).

The thesis used these variables to work backwards from the selection of ‘Stay or Go’ as public bushfire safety advice in Victoria in the 1990s (Rhodes 2009) to the founding of Victoria/Port Phillip as a separate colony in the 1850s, and to identify key points in this period that saw the streams ‘coupled’ in open policy-windows to move Victorian public safety advice along the pathway to ‘Stay or Go’. In line with the concepts of developmental pathways and associated emphasis on the temporal characteristics of events (and sequences of events) prominent in historical sociology the thesis found that major policy change typically followed a fast-paced chain of linked events involving substantial fire-related losses and/or significant fires, public and media outrage, and post-fire investigations pressing for change (Aminzade 1992; Goldstone 1998a; 1998b; Mahoney 2000). The kind of change advocated conformed to what was expected given the dominant problem-frame(s) and prominent ideas in the ‘policy primeval soup’ (Kingdon 2013). The dominant frame for Victoria’s bushfire problem focused on the reduction of fire-related losses and, as in much disaster-related theory and practice, this frame reinforced (and was reinforced by) militaristic policy ideas that saw asset-protection policies as the most suitable solution. These frames and policies led Victoria’s post-fire policymaking to focus on alternatives that emphasised formalisation, centralisation and/or militarisation of the fire-related roles and responsibilities of Victoria’s fire services and community, with this evident in the various Fire Brigade Acts, Forests Acts, Bushfire Brigade Acts and Country Fire Authority Acts of the first half of the 20th century.

Rather than theoretical, practical or statistical evidence the selection of Stay or Go as Victoria’s public safety advice was explored as a (socially-constructed) outcome that followed from the developmental pathways of Victoria’s fire services and communities that
shaped understandings of how to reduce bushfire-related losses. In the years to Ash Wednesday Victoria’s socio-economic, demographic, cultural and political development, together with major fires, fostered centralisation and militarism as the preferred policy ideas to combat the problem of protecting assets from bushfires. The fire-related losses accrued on Ash Wednesday opened a policy-window that allowed for the coupling of Kingdon’s (2013) streams favourable to the ‘Stay or Go’ approach to public safety during fires. The approach was riven with tensions between local and central control of fire management activities, and the questionable utility of Civil Defence-like training and education programs for communities-at-risk but, because the approach fit the prevailing problem-frames and ideas in the policy primeval soup, whilst also being amenable to the politics stream, it was selected as Victoria’s preferred public safety strategy.

1.3 Organisation of the Thesis

There are eight chapters in the thesis. The first chapter introduced the study’s context and background as a survey of the factors other than evidence that led to Stay or Go becoming the preferred public bushfire safety strategy in Victoria in the 1990s. The chapter also sets out the thesis’ intention to use Kingdon’s (2013) Multiple Streams framework to explain the selection of Stay or Go in Victoria using the ‘problem’, ‘policy’ and ‘politics’ streams, expressed as stories of the development of Victoria’s fire management strategy and wider societal transformations. The chapter also lays out the research rationale and methodology.

Chapter 2 describes the theoretical framework. Kingdon’s (2013) Multiple Streams framework is integrated with theories of social constructivism and social and political power, with the resulting ‘stories’ applied to disaster theory and practice. Disaster theory and practice is explored through a periodised account of developments in the field that primarily focused on the post-World War Two period. The thesis then applied the general findings from this account to Victorian bushfire management between the 1851 Black Thursday and 1983 Ash Wednesday bushfires, with a focus on continuities and change in the roles and responsibilities of Victoria’s fire services and community. This helped to draw focus to important steps along the developmental pathway towards Stay or Go. Typically change resulted from the introduction of new legislation that would create ever-stricter definitions of both the fire services’ and community’s roles and responsibilities in fire management. The fire services were progressively transformed into military-like organisations and the community, likewise, managed per associated principles and ideas such as Command-and-Control and Civil Defence, in part because of the deep-seated militarism in disaster theory and practice. After World War Two militarism became ingrained as a guide for the fire services’ and community’s roles and responsibilities, leading to a Civil Defence-like approach to public safety from the 1960s onwards. The approach built on the pre-existing Command and Control-like approach to public fire roles and responsibilities as the most effective means to reduce the risk of disaster-related panic and losses. This process is then
explored using Kingdon’s (2013) Multiple Streams approach to explain how the ‘streams’ came to be coupled in a manner conducive to the selection of Stay or Go as Victoria’s public safety strategy in the 1990s despite the lack of longitudinal empirical evidence supporting the strategy. The chapter closed with the research questions, the thesis’ assumptions and limitations, and the significance of the research.

Chapters 3 and 4 focused on the developmental pathways of Victoria’s fire services between c.1850 and 1979. They described the legislative, organisational, technological and philosophical changes affecting the fire services, and the fire services’ relationship with the community. It is shown that legislation progressively formalised and centralised control of the fire services, while the organisational, technological and philosophical principles guiding the fire services were increasingly informed by militarism. Both processes – formalisation and militarisation – were responses to deficiencies identified in the fire services’ functioning, and generally occurred after major fire events or a fast-paced sequence of less-severe fires. These processes produced tensions between the fire services and state government due to the former’s concerns over lost autonomy and the restrictions on local fire management created by the ever-more formal and defined role and responsibilities in fire management. Typically, these tensions were resolved in favour of the state government and constituted another step on the developmental pathway from local, autonomous, brigades to Brigades as a public service. The militarising and centralising of the fire services also influenced the services’ relationship with the community, and led the former to increasingly adopt a Command-and-Control and Civil Defence-like attitude towards the community’s role and responsibilities during bushfire. These attitudes produced tensions between the fire services’ and community’s goals, values and views vis-à-vis fire management, with this manifest in the early difficulties in controlling economically-motivated, ‘careless or malicious’ use of fires, and later clashes over the appropriate use of technology in fire management programs. The analysis of the fire services concluded with a brief review of the organisational, scientific and technological changes made in fire management after the Second World War. The sharp growth in complexity in fire management, and the increased requirements of training and experience in formal fire-fighting, diminished the community’s usefulness to organised fire-fighting. Thus the Second World War is considered a conjunctural event between the developmental pathways of the fire services and community that would support efforts to promote a Civil Defence-like approach to public safety from the 1960s onwards.

As the 1960s and 1970s are considered a conjunctural moment between the two principal pathways, the boundaries imposed by periodised approach in the thesis are more permeable or porous, meaning that there is an overlap in chapters’ discussion of events in these decades. This porosity is most prominent in discussions of the technologization of Victorian bushfire management in the 1960s vis-à-vis use of aerial fire management strategies and the increased complexity of fire-fighting equipment and tactics. The pathway that led to these events and the events’ ramifications play out over several periods, and there are time lags to take into
account in the analysis and thus see the periodization-based approach eschewed in favour of a more thematic focus such that chapter 4 focuses on the continuities and change resulting from technologization, militarisation and centralisation in the 1960s and 1970s on the CFA’s operational and organisational. The themes of technologization, militarisation and centralisation permeate into chapter 5, which considered the effect of these three themes on the principles and assumptions underpinning Victoria’s fire management in the 1960s and 1970s, while chapter 7 used the three themes to describe continuities and change in the community’s fire management roles and responsibilities.

Chapter 5 explored the growing tensions between the militarism guiding disaster-relevant organisations, social science research critiques of these, and the difficulties of using militarism as a guide to disaster management in an increasingly heterogeneous social landscape. It provided a brief review of the formation of formal disaster planning and management as a discipline in America after the Second World War, the research and factors that supported a para-military orientation for disaster theory and practice, and then moves to describe critiques of these foundational assumptions. It is also shown that these critiques have not readily been acknowledged or incorporated into disaster-relevant organisations. These factors are shown to have influenced disaster-related organisations and disaster theory and practice in Victoria and Australia, with disaster-relevant organisations modelled after, staffed, and operated along the lines of a paramilitary force. The influence of militarism on disaster theory and practice and disaster-relevant organisations is shown to have grown markedly in the 1960s and 1970s, as a spate of natural disasters led to yet-more centralising and militarising of Victoria’s and Australia’s counter-disaster strategy. This is argued to have imbued Victoria’s fire services with the assumptions and principles conducive to the selection of a Civil Defence-like program for public disaster safety, despite the growing social science critiques of such an approach, with this manifest in the emergence of Stay and Defend as public bushfire safety advice in the 1960s.

Chapter 6 described the effects of Ash Wednesday on Victoria’s bushfire management strategy. The fires are considered to have opened a ‘policy window’, or opportunity for major policy change, and thus the post-fire reports and investigations are analysed through Kingdon’s (2013) Multiple Streams framework of policymaking. That Ash Wednesday represented the opening of a policy window is evidenced by the subsequent debates about the priorities, problems, solutions, and constraints associated with bushfire management in Victoria. These debates led to the maturation of Stay and Defend into Stay or Go, with this a result of recognition that certain sections of the public were ‘incapable’ of successfully Staying and Defending during bushfires, and an attempt to accommodate such vulnerable people into Victoria’s bushfire strategy and policy. The chapter argues that this policy change after Ash Wednesday resulted from a discursively-produced coupling of Kingdon’s (2013) ‘problem’ and ‘policy’ streams, rather than from objective evidence. This is achieved through a brief critique of the relationship between the evidence mobilised in support of Stay and
Defend in the 1960s and Stay or Go after Ash Wednesday, and foreshadows a more general critique of the evidence for Stay and Defend/Stay or Go at the end of chapter 7.

Chapter 7 described the developmental pathway of Victoria’s community, and presented a periodised account of continuities and change in the community’s fire management roles and responsibilities. It is shown that the community’s roles and responsibilities were progressively formalised by the state and fire services – often through new legislation – with these attempts at social control preparing the ground for the introduction of the Stay and Defend advice in the 1960s. The chapter described the tensions that resulted from the state government’s and fire services’ attempts to Command-and-Control the community in fire management, which see community members pre-1960 ordered to undertake fuel management activities and to cease the ‘careless or malicious’ use of fire. Tensions resulted from the centre’s rational and military-like approach clashing with the community’s more social, emotional and complex goals. This manifests in clashes between the centre’s ever-increasing efforts to restrict the community’s rights to use fire so as to restrict careless or malicious uses of fire and thus achieve the centre’s fire management goals, and the community’s economically-motivated use of fire to satisfy its own goals. These tensions persisted into the second half of the 20th century, where the state’s fire management goals again clash with the community’s goals, as the state efforts to reduce the risk of fire through landscape-level vegetation management programs clashed with the community’s conservationist goals.

The community’s changing goals vis-à-vis fire-prone areas reflected a wider post-war socio-cultural and demographic shift in country Victoria. Population growth and increased community heterogeneity followed from the state and Federal government’s efforts to reverse decline in country areas and to alleviate metropolitan over-crowding. These programs began to produce their desired effects in the mid- to late-1960s, as population growth in country Victoria comes to match and then exceed growth in metropolitan Melbourne. Out-migration to fire-prone areas led to socio-cultural change, as new arrivals brought with them different values and goals than more established country residents. This was particularly apparent in tensions between the centre’s and country residents’ goals of reducing fire risk through broad-scale vegetation and fuel management programs, and the new arrival’s efforts to protect and foster Australia’s unique remnant flora and fauna. The political strength of the new arrivals and their associated conservationist political movement led the state government to increasingly favour the new arrivals’ goals, leading to a dangerous build-up of fire and increased fire risk.

The chapter described how these socio-cultural constraints on the CFA’s activities combined with the wider political context, particularly restrictions on public spending, to leave the CFA unable to offer effective protection to fire-prone areas. At the same time, the increased post-war complexity of organised fire-fighting meant that the untrained or under-trained members of community could no longer operate as a fire-fighting reserve as they had during historic fires (e.g., the 1939 Black Friday bushfires). The result is that the period
1962-1967 sees Victoria’s and Australia’s formal fire services refuse, or at least depreciate, assistance from untrained residents at a time when vulnerability to fires – i.e., the presence of people and property in fire-prone areas – had markedly increased (Anderson & Whitman 1967; Murray & White 1995). The chapter linked these socio-economic, cultural and demographic developments, to the principles and knowledge adopted from the military that were informing Victoria’s fire services, and the growing influence of economic rationalism and individualism in Australian politics more generally. This linking helped explain the fire services’ shifting towards advice to Stay and Defend during bushfires. This shift began in the early-1960s, where simplistic advice suggested Staying and Defending a property during a bushfire was a safer response to fires than late evacuation, with this advice increasing in complexity and developing along Civil Defence lines in subsequent years (e.g., The Age 1970a; AWW 1980b; Canberra Times 1983a; Good Neighbour 1962a; Luke 1961). Thus Stay and Defend is considered to represent a suitable coupling of the dominant problem-frames and available policy ideas, but was not codified as policy yet due to the lack of a suitable policy window. The 1983 Ash Wednesday bushfires are argued to constitute such an opportunity for policy change, and the subsequent research into causes of death during the fires to have led to the maturation of the Stay and Defend strategy into the Stay or Go policy in Victoria. Stay or Go is considered the mature form of Stay and Defend because it retained the core elements of Staying and Defending, with this combined with the post-Ash Wednesday concern of a lack of preparedness among some residents, and finding that some community members that were ‘incapable’ of implementing an effective survival strategy, and should evacuate from the fire-ground before they were threatened. To give the resulting policy its more-formal title, Victorian’s were advised to ‘Prepare, Stay and Defend, or Leave Early’.

The thesis then closes with its eighth, concluding chapter that reviews the argument made, and suggests avenues for future study.
Chapter 2: Theoretical Framework

This chapter has 5 main sections. The first describes Kingdon’s (2013) Multiple Streams framework of policymaking, which served as the main theoretical frame for the research. The section underlines the inherent ambiguity in defining or framing issues as ‘problems’, and how the particular definition or frame influences the policies (or solutions) deemed appropriate. Kingdon’s (2013) model explored how the ‘policies’ qua ideas, solutions, and alternatives presented to policymakers are developed and ‘mutated’ by policy entrepreneurs and the associated importance of social and political power in ‘policy’ design; and how the policymaker’s ability and desire to address a ‘problem’ affects policymaking. Further, the chapter follows on from the historical sociological methodology by describing the importance of the pace, duration, cycle and trajectory of events in providing opportunities for policy change. Kingdon (2013 p.20, p.165) identified this as the opening of a ‘policy-window’, which occurs due to the ‘appearance of compelling problems or by happenings in the political stream’, such as the ‘scheduled renewal of a program’, the election of a new government, or a change in public opinion. Where policy entrepreneurs can ‘couple’ their pet policies with prevailing problem definitions and demonstrate that they are technically, politically and financially compatible with existing constraints they can raise the issue on the ‘decision-making’ agenda’, and thus effect the greatest policy change (Kingdon 2013 p.178).

The first section lays out the theoretical framework used to explain the second, which considers literature from the field of disaster. The disaster-related literature is used to show how militaristic ‘policies’ came to be the preferred solution to the ‘problems’ of public safety during disasters. The section focuses primarily on disaster theory and practice after World War Two, where the conflict opened a ‘policy-window’ in both America and Australia for a new approach to disaster planning and management. The ‘problem’ of public safety during disasters was linked to the need to reduce the public’s presumed ‘panic’, that rendered them ‘irrational, overly emotional and thus ineffective in helping themselves and others’ during disasters (Dynes 1983; 1994; Quarantelli 1987; Takeda & Helms 2006, p.205). The wartime militarisation of emergency services, and growth of Civil Defence organisations, led to the extension of militaristic principles as guides for peacetime disasters and of Civil Defence-like schemes to reduce the risk of public panic.

These policy ideas had been ostensibly confirmed by the experiences of military, Civil Defence, emergency and disaster organisations during World War Two, where close association between these organisations led by the military were credited with reducing losses in Allied countries (The Age 1944b; 1944c; AWW 1940a; Burra Record 1939a; Sydney Morning Herald 1929a). After the war the ‘doctrine of dual-use’, where Civil Defence-like methods were considered appropriate solutions for the ‘problems’ of public panic during both wartime emergencies and natural or technological disasters. The doctrine of dual use led disaster and emergency service organisations to attempt to train and educate the public away
from its ‘natural tendency’ to panic into safer responses to emergencies (Dynes 1983; 1994; Quarantelli 1987). These principles strongly resemble the assumptions and arguments underpinning the introduction of Stay or Go as Victoria’s public bushfire safety policy.

The third section describes continuities and changes in Victoria’s bushfire management strategy between the 1851 Black Thursday and 1983 Ash Wednesday bushfires. The section considers both the roles and responsibilities of Victoria’s fire services and community. It explores how (and if) these roles and responsibilities change, and reflects on the underlying causes for such change. Generally, it is found that an external event – whether socio-economic, cultural, demographic, technological, or political – builds up stresses in the prevailing strategy that eventually led to a failure (e.g., major loss during a fire) that created pressure for change. The section describes how this change generally takes the form of centralising pressures that were resisted by both the fire services and the community. The fire services were willing to adopt the state’s prescribed military-like form for their organisation, but resented the transfer of local control over fire management activities to the centre. The community, meanwhile, resisted and subverted the state’s attempts to control its rights, roles and responsibilities in fire-prone areas. Initially this would take the form of the economically-motivated illegal or careless use of fire as a land-transformation tool of graziers, loggers or miners, and later the culturally and environmentally-motivated political pressure to reduce large-scale fuel-reduction burning as a fuel-management tool. However, due to the highly-rational, militaristic principles guiding disaster theory and practice the more social and economic, and cultural aspects creating tensions were poorly understood by disaster planners and managers, and instead dismissed as consequences of the public’s ‘apathy [or] ignorance’ (Stretton 1939, p.5).

The fourth section considers how these continuities and changes and the factors underpinning them, together with the prevailing militarism, sees Kingdon’s (2013) Multiple Streams ‘coupled’ after Ash Wednesday in a manner conducive to Stay or Go. It considers the introduction of Stay or Go as the next step in the state’s long-term formalising, centralising and militarising of community roles and responsibilities to fire, with Stay or Go likened to a Civil Defence training program. The section then describes the assumptions guiding the selection of Stay or Go as public safety policy, including the prevailing militarism of disaster management, and thereafter notes the difficulties encountered in translating the policy into practice in the early 2000s. It concludes by arguing that the state’s failure to recognise these difficulties as warning signs in a struggling effort to incorporate a Civil Defence aspect into public safety in terms of Beck’s (1992; 2006) criticisms of the failure to create a Risk Society, and other critiques of contemporary disaster management.

The chapter ends by presenting the research questions.

**2.1 Policymaking**
Kingdon’s (2013) Multiple Streams framework of policymaking represented a major challenge to the dominant ‘stages/cycles’ heuristic of policymaking put forward by Lasswell (1936; 1956). Lasswell’s (1956) model saw policymaking as involving a sequential progression through seven stages, with these stages repeated cyclically after the seventh ‘termination’ stage.

The simplicity and rationality of Lasswell’s (1956) model mean it remains prominent as an explanation of policymaking (see Burton 2006; Howlett et al. 2015; John 1999; 2012;), despite Kingdon (2013) challenging both the idea of ‘stages’, and the associated rationality of policymaking. For Kingdon (2013 p.18) the idea of an ‘orderly, rational’ policymaking process beginning with the identification of a problem’s origin was both spurious and unnecessary. In trying to identify a problem’s origin actors risked falling into the fallacy of ‘infinite regress’, policy debates risked focusing as much on whether ‘an event at an earlier point in time was more important than an event at a later point’ as on actual policymaking (Kingdon 2013, p.73). Further, Kingdon’s (2013) study of policymaking found that the information-gathering and decision-making processes involved in policymaking were not rational, and instead proposed Cohen and colleagues’ (1972) garbage-can of decision-making as a better description. The features of the garbage-can model – ‘problematic preferences’, ‘unclear technology’, and ‘fluid participation’ – conveyed the ambiguous, discursive nature of decision-making in organised anarchies, and in policymaking (Cohen et al. 1972, p.1; Kingdon 2013). Problematic preferences refer to decision-making and problem-defining contexts where those involved offer a ‘wide variety of inconsistent and ill-defined preferences’ which are shared and discussed as a ‘loose-collection of ideas’ rather than in a ‘coherent structure’ (Cohen et al 1972, p.1). ‘Unclear technologies’ suggests decisions and problems are confronted by those who do not fully understand the technologies, processes or issues, and instead rely on ‘simple trial-and-error procedures, the residue of learning from the accidents of past-experience and pragmatic interventions of necessity’ (Cohen et al. 1972, p.1). Finally, ‘fluid participation’ refers to actors varying in the ‘amount of time and effort they devote to different domains’, and that their ‘involvement varies from one time to another’, such that ‘audiences and decision-makers for any particular kind of choice’ change ‘capriciously’ (Cohen et al. 1972, p.1).

Kingdon (2013) found these traits a good fit for describing policymaking. Audiences and decision-makers ‘do not agree about what they want government to accomplish’, such that the problems and policy preferences of policymakers reflect those things that ‘capture the attention of people in and around government’ rather than a rational and shared understanding of pressing problems and suitable policies (Kingdon 2013, p.6, p.88). The range of governmental and peri-governmental actors involved in policymaking, likewise, made it likely that some participants would be ‘unclear’ on the nuances of the technology, processes and/or issues involved and, even where actors shared a somewhat clear understanding, it was probable that the process would be so fragmented that the ‘left hand’
would be unclear on what the ‘right hand’ was doing (Kingdon 2013, p.85). Finally, the ‘cloud[y] [...] boundaries’ involved in government roles and responsibilities, where actors take on roles and responsibilities that are ‘not commensurate’ with their formal duties and are wont to ‘drift in and out of decision-making’ implied a capricious audience, and this led Kingdon (2013 p.85) to offer his evolutionary, stream-coupling framework for policymaking.

Kingdon’s (2013 p.19, p.88) thesis is that the ‘greatest policy changes’ occur when ‘problems’ and ‘policies’ are ‘coupled’ at politically fortuitous times (‘open policy-windows’). ‘Problems’, ‘policies’, and ‘politics’ constitute Kingdon’s (2013 pp.72-73, p.78) three largely independent ‘streams’ that, unlike the stages/cycles heuristic, are ‘logically coequal’ in that ‘none necessarily precedes the others chronologically’, with policies (qua solutions) as prone to seeking problems as problems are to seeking policies. This model underscored the ‘messiness of the policy process’ against the stages/cycles view of a ‘comprehensive, rational decision-making process’ where actors set about ‘defining the problem, canvassing the possible solutions’ and evaluating outcomes before making decisions (John 2012, p.159).

Prior to selecting Kingdon (2013) as the principal theoretical lens for analysing policymaking the thesis considered the Advocacy Coalition Framework (ACF) of Sabatier (1988) and Sabatier and Jenkins-Smith (1988), and Baumgartner and Jones’ ([1993] 2009) Punctuated Equilibrium Theory (PET). The three share much common ground, including their principal focus on policymaking in America and subsequent authors’ attempts to demonstrate their generalizability, and their appreciation of the ‘messiness’ of policymaking that allows actors to exploit ambiguity in defining problems and/or coupling solutions to them to advance the actor’s preferred position. Kingdon’s (2013) conception of the messiness and ambiguity was considered the most developed and attractive of the three, and thus the best method for describing bushfire-related policymaking in Victoria.

Zahariadis (2014 p.30) described Kingdon’s (2013) model as emphasising ‘political manipulation’, and highlighted it as setting Kingdon ‘apart from other lenses’ of policymaking that ‘employ rationality (rational choice) or persuasion (constructivism)’. The principal users of discourse and ambiguity (or ‘political manipulation) in Kingdon’s (2013) framework are the policy entrepreneurs, those ‘individuals or corporate actors’ who are ‘willing to invest their resources in pushing their pet proposals’ to policymakers, in the hope that they can ‘convince others that their policy, program or industry represents the solution to [a] long standing policy problem’ (Baumgartner & Jones 2009, p.7, p.29; Kingdon, 2013, p.108). Sabatier (1988 p.133) and Weible and Sabatier (2006 pp.124-126) likewise emphasised the importance of manipulation and “policy brokers” in their Advocacy Coalition Framework (ACF), where actors ‘seek to manipulate the rules, budgets and personnel of government institutions’ to achieve their goals ‘over time’.
In contrast, ACF’s attempts to measure variables to develop a ‘empirically testable hypothesis’ for policymaking, and to (potentially) predict changes in policies were considered ill-suited to the thesis’ goals (Weible & Sabatier 2006, p.131). ACF, essentially, is an attempt to create a grand scientific theory of policymaking that can explain the causes and effects of policymaking both historically and in the future by weighing the variables (relatively stable parameters; venues; strength of coalitions; distribution of beliefs/resources; actions of brokers, etc., Fischer et al. 2006; Sabatier 1998; Sabatier & Weible 2014; Weible & Sabatier 2006).

This scientific methodology is difficult to reconcile with the important role played by subjectivity and interpretation in policymaking. Fischer (2003 p.139) noted the difficulties of ‘empirically investigat[ing] the realm of meaning’, and thus measuring the ‘beliefs’ that hold together coalitions in ACF (Sabatier & Jenkins-Smith 1993, p.5). The ‘hierarchical belief system’ in ACF, was, for Fischer (2003 p.103), not sensitive enough to the ‘fluid’ nature of individual preferences and if it were the result would not be a useable variable for ACF’s predictive modelling (Weible 2007, p.99; Weible & Sabatier 2006, p.127). Instead Fischer (2003 pp.103-105) used the idea of a ‘discourse coalition’, where members temporarily share an:

interpretation of threat or crisis, not a core set of facts and values that [in ACF] can be teased out through content or factor analysis. Rather than a stable core of cognitive commitments and beliefs, they share storylines that tend to be vague on particular points and, at times, contradictory on others.

Here Fischer (2003) followed Reich’s (1988 p.5) view of policymaking as actors ‘giving voice to [their] half-articulated fears and hopes, and embodying them in convincing stories about their sources and the choices they represent’. For Fischer (2003, p.103) Reich’s (1988; 1990, p.7-8) arguments regarding the ‘process of social learning about public problems and possibilities’ implied problems are ‘defined and understood’ through deliberation (or discourse), and that this affects ‘what the range of possible solutions might be, and who should have responsibility for solving them’ (see also Hajer 1995).

ACF has gone some way to acknowledging the need to consider discourse through efforts to incorporate policy narratives into the framework (see Weible et al. 2011). The move towards a ‘post-empiricist methodology’ in ACF, as in policymaking generally, followed Stone’s (1989) work on ‘causal stories’ in policymaking (Fischer 1998; Radaelli 1999). This led the works of (e.g.,) Radaelli (1999) and Shanahan and colleagues (2011 p.535) that sought to supplement ACF with narratives, or to develop a new Narrative Policy Framework ‘using the same rigorous social standards’ involved in ACF (see also Weible et al. 2011). Despite this development, the main proponents of ACF maintained their focus on a ‘hard and fast
consensus about problems or appropriate solutions’ through the retention of the idea of a ‘three-tier belief system’ in the framework, and thus was not considered a good fit for the thesis (Fischer 2003, p.33; Weible & Jenkins-Smith 2016, p.19). Instead, Kingdon’s (2013) practical and descriptive focus, and more developed view of ambiguity and discourse, was felt a better model for explaining why policy changes occurred in the Victorian bushfire management strategy than the variable-drive, semi-predictive ACF approach. This can be seen in the slight variation in the related concepts of ‘venue shopping’ in ACF and ‘problem-framing’ in Multiple Streams: the former refers to actors seeking to find some ‘competitive advantage’ for their pet proposal, while the latter comprises this element along with an emphasis on the ‘complex and continuous struggle[s] over definitions and meaning’ of the problem (Hajer 1995, p.14; John 1999; Kingdon 2013 p.6, p.68, p.116, p.165, pp.181-182; Weible & Sabatier 2006, p.129).

The choice between Multiple Streams and PET was more complicated because the two theories of policymaking are ideological siblings. Kingdon (2013) offered advice and critique during the development of PET. Baumgartner (2015 p.14) reported that Kingdon ‘pushed [Baumgartner and Jones] strongly to adopt the language of punctuated equilibrium’ in their analysis, and was a ‘driving force’ of the research. Both use an evolutionary model of policymaking, and Baumgartner and Jones (2009) accepted several of Kingdon’s (2013) arguments. For example, Baumgartner and Jones (2009 p.5) agreed that ‘[w]hen new principles are under consideration, the policymaking process tends to be volatile, and Kingdon’s [2013] model is most relevant’, but argued that because ‘[n]ew policies are not continually adopted […] policymaking tends to assume an incremental character’. Baumgartner and Jones’ (2009 p.xviii) concept of ‘friction’ in policymaking is also analogous to Kingdon’s (2013) politics stream, in that both describe constraints on policymaking. Baumgartner and Jones’ (2009 p.xviii) definition of ‘friction’ is perhaps more developed than Kingdon’s (2013) politics stream, in that it has a more social aspect that is referred to the ‘rules of the game’ and other factors that ‘make it difficult for any action to take place in a political system’. Finally, Baumgartner and Jones (2009 p.7, p.29) followed Kingdon (2013) in suggesting that the ‘trick for policymakers is to convince others that their policy, program, or industry represents the solution to [a] long-standing policy problem’, and appreciate the role of policy entrepreneurs in ‘softening up’ opposition, and/or building support, for the entrepreneur’s position.

The choice came down, then, to a personal view regarding whether bushfire-related policymaking was, like PET, made up of short bursts of ‘disjoint and episodic’ change (punctuation) followed by longer ‘periods of near stasis’ (equilibrium), or involved the ‘continual interplay’ of Multiple Streams (Baumgartner & Jones 2009, p.xvii; John 2012 p.158). In light of the data collected the ‘continual interplay’ and constant evolution of new ideas or refinement/mutation of existing ideas in the ‘policy primeval soup’ in Kingdon’s
(2013) approach was felt a better description of the way in which Victoria’s bushfire management strategy developed.

2.1.1 Problem Streams and Problem Framing

Kingdon’s (2013) discussion of the ‘problem’ stream underlined the role of ambiguity and discourse in policymaking. Rather than having an objective reality problems, or rather problem definitions or frames, are socially constructed, as policy entrepreneurs engage in ‘struggles over definitions’ in the hope that their preferred definition/frame becomes dominant (Kingdon 2013, p.110). The core idea ties in with Somers’ (1996 p.71) work in the field of historical sociology, where actors must appreciate the ‘context’ in which a question (or problem) is “discovered” and debated, as the resulting agreements and shared meanings have a bearing both on the type of solutions considered appropriate for the problem, and for the problem’s prominence on the governmental agenda (see also Kingdon 2013; Sabatier 1988). By way of example Kingdon (2013) discussed the role of policy entrepreneurs in defining the problems facing the American automobile in the 1970s. The automobile manufacturers and their associated policy entrepreneurs worked to define the problem of declining sales of American-made automobiles as a result of ‘unfair foreign competition and oppressive government regulation’, such as the 1963 Clean Air Act and 1965 Vehicle Air Pollution and Control Act which limited vehicular emissions (Kingdon 2013 p.110). The result was that the ‘burden of doing something’ was shifted away from the manufacturers, as this problem definition did not produce obvious policies that manufacturers could address. The manufacturers had used discourse and ambiguity to force ‘adjustments to be made elsewhere, particularly by the federal government’ to address the problem of declining market-share through Federal funding and other policies (Kingdon 2013, p.110). Had other policy entrepreneurs been successful other aspects or definitions of the problem, such as ‘plush union contracts, poor quality control and [/or] inept management decision-making’ embodied in production of ‘large cars’ despite the 1970s Oil Crises and changing customer tastes, the ‘burden’ of doing something would have been shifted to the manufacturers (Kingdon 2013, p.110). This would have involved manufacturers either confronting unions over working conditions, or recognising their own faults; neither was an attractive prospect compared with framing the problem as the responsibility of the Federal government and thereby receiving Federal assistance (Kingdon 2013).

The Advocacy Coalition Framework (ACF) and Punctuated-Equilibrium Theory (PET) approaches to policymaking both built on Kingdon’s (2013) idea of policy frames by stressing the importance of choosing an appropriate policy ‘arena’ or ‘venue’ to debate a problem and/or policy solution. In Kingdon’s (2013) example the manufacturers’ success in defining the problem of low sales in terms of Federal legislation, rather than allowing it to be
discussed in other arenas such as labour rights or management techniques involved a process of ‘venue shopping’, where ‘strategically minded political actors’ employed the ‘dual strategy of the presentation of [a particular problem] and the search for a more receptive political venue’ (Baumgartner & Jones 2009, p.36; Weible & Sabatier 2006, p.129). In the automobile manufactures’ example, they gained ‘competitive advantage’ by defining the industry’s problems as the result of Federal legislation in both placing the ‘burden of doing something’ with the Federal government, and in drawing the problem into a more ‘visible’ policy arena. Again, the importance of ‘visibility’ and its use in ACT and PET is a development from Kingdon (2013 p.95) who had argued that a ‘visible’ or prominent policy area offered more potential gains for actors, and drew policymakers to seek to promote their pet proposals in visible arenas. Sabatier (1988 p.129) made a similar point in discussing the shift in policy venue for the problem of air pollution from the ‘dirty air’, environmental arena to the more visible public health arena. The shift was vital in drawing the problem to prominence in the governmental agenda, and thus to producing policy change (Sabatier 1988).

The ‘complex and continuous struggle[s] over the definition and meaning’ of problems, and of the correct policy arena for debate hints at a weakness of ACF in explaining policymaking (Hajer 1995, p.14). Hajer (1995) and Fischer (2003, p.103, p.139) questioned whether Advocacy Coalitions could have the stability imbued to them by ACF, and the ability of the Framework to ‘empirically investigate the realm of meaning’ held by members. Instead of such empirical studies Hajer (1995 pp.65-66) proposed study of the ‘storylines’ that helped ‘keep a […] coalition together’, with storylines serving both as the ‘narrative within which a specific actor can understand [their] contribution to knowledge or localise [their] own social preference’, and also as an important ‘influence [on] actors in their own production of knowledge’. These stories, of course, are not easily investigated empirically. Fischer (2003 p.103) followed Reich (1988; 1990 pp.7-8) in arguing that the conflicting views of problems and policies, expressed through discourse and laden with ambiguity, affects ‘what the range of possible solutions might be, and who should have responsibility for solving them’. This, again, is more in tune with Kingdon’s (2013) view of policymaking as the product of ambiguous, discourse-based practices that serve to define ‘whose problem it is’, ‘which puzzles to solve, what counts as a solution, and whose interests to serve’ in policymaking (Goodin et al. 2012, p.907). Thus, to understand policymaking it is ‘crucial’ to explore ‘how, when and why questions’ (qua problems) emerge and change over time, and how defining and framing the causes of problems affects the policies considered suitable, and whose problems they are (Somers 1996, p.72).

It is important to stress that problem-identification and defining problems are not one-way processes where non- and peri-government actors seek to influence policymakers. The raising of a problem by policy entrepreneurs, or the shifting of a problem to a new policy arena can prompt the ‘acquisition of [additional] information’ by policymakers that leads them to agree or disagree with the entrepreneurs’ assessments (Jones 1995, p.14). Further, it is necessary to
appreciate that despite their discursive and ambiguous aspects problems are not the result of 'some sort of political pressure or perceptual sleight of hand', as there is a problem that needs to be addressed, and that problem-frames are not set in stone after an initial agreement. Policymakers have agency in accepting or rejecting the problems or problem definitions put forward, but this again implies a 'perceptual, interpretive element' to policymaking (Kingdon 2013, p.110). When considering a problem (or problem-frame) policymakers are generally responding to problem 'indicators' brought to their attention by their own understanding, or by policy entrepreneurs (Kingdon 2013, p.93). These indicators can take the form of quantitative measures – air quality, unemployment, mortality rates, etc. – or from '[s]oft qualitative measures', which policymakers tend to depreciate due to their being 'much more difficult [to acquire and interpret] and much less rewarding' in 'building up steam' for policymaking (Kingdon 2013, p.93). Kingdon (2013 pp.94-98) also found that policy change ‘rarely’ resulted from ‘crises, disasters, symbols and [/or] other focusing events’ in and of themselves, as these must reinforce some idea already in the ‘backs of peoples’ minds’, and/or requires a ‘little push’ to ‘get the attention of people in and around government’. Again, then, policymakers have some control over what they pay attention to, and thus a problem’s place on the governmental agenda. Indeed, Haskins (2010a p.31) found that the ‘personal views and political strength of individual politicians’ can be a more important factor in a problem receiving attention than evidence, as evidence was ‘only rarely […] a dominant force in debate over policy formulation’. Head (2010b pp.80-83), similarly, found that ‘many factors besides research evidence’ were influential in policymaking, including an ambiguous ‘interplay of facts, norms and preferred courses of actions’. In Kingdon’s (2013) framework facts, norms and preferred course of actions are refined and negotiated through social relationships between policy communities, policy entrepreneurs and policymakers to produce proposals, ideas, alternatives or solutions which Kingdon labelled the ‘policy’ stream.

2.1.2 Policy Streams, Policy Communities and Policy Entrepreneurs

In Kingdon’s (2013 p.116) framework policy proposals develop in ‘policy communities’ made up of ‘specialists: researchers, congressional staffers, people in planning and evaluation offices and in budget offices, academics, interest group analysts [etc.]’. The specialists and their associated communities develop policy ideas and alternatives ‘whether or not they respond to a problem’, with these specialists content to ‘hum along’, developing ideas and waiting for an opportunity (such as the emergence of a new problem or re-definition of an existing one, or change in the politics stream) that would allow for their pet proposal to be ‘considered seriously’ on the governmental agenda (Kingdon 2013, p.88, p.117). While dormant in this ‘policy primeval soup’ ideas ‘float around’ like molecules in the biological ‘primeval soup’, and ‘confront one another […] and combine with one another in various ways’ (Kingdon 2013, pp.116-117). Ideas ‘become prominent’, ‘fade’, or undergo
‘recombination’ *qua* ‘mutation’ in response to the ‘bills introduced, speeches made, proposals [...] drafted’, and/or developments in the other streams (Kingdon 2013, p.117, p.124). Kingdon (2013 p.124) found that the ‘recombination’ of existing ideas into a ‘new structure or a new proposal’ was more common than an outright policy mutation, which in turn was more likely than the introduction of ‘wholly new elements’ in the policy primeval soup; ‘breakthrough scientific discoveries’, for example, are ‘usually [built] on a lot of previous research’. This led Kingdon (2013 p.124) to explain that despite ‘change and innovation being observed’ in the soup, there are (generally) ‘no new thing[s] under the sun’. Instead, policy communities strive to get existing ideas ‘ready to go’ through refinement and recombination so that ‘when the big wave comes along’ entrepreneurs can ‘ride it in’ (Kingdon 2013, p.117, p.128, p.165).

Being ‘ready to go’ implies both that the policy is well-developed and that the public and policymakers have been ‘softened up’ by the policy community prior to the idea’s consideration (Kingdon 2011, p.117, p.128). As there are a ‘wide range of ideas’ floating in the policy soup that are ‘considered to some extent’ in policymaking the ‘softening up’ process is a decisive factor in whether an idea (policy, solution, alternative) receives ‘serious consideration’ in policymaking (Kingdon 2013, p.128). It can take a ‘“long time to educate people”’, potentially involving ‘years and years of discussion’ to “build up some power to do something” (Kingdon 2013, p.128). These activities are ‘time consuming and energy consuming’ for stakeholders, and thus generally not performed out of altruism; instead actors advocating certain policies (policy advocates) are doing so due to some expected gain from their support (Kingdon 2013, p.128; John 1999). Kingdon (2013 p.122) refers to these ‘advocates’ as ‘policy entrepreneurs’, actors identifiable through their ‘willingness to invest their resources – time, energy, reputation and sometimes money – in the hope of a future return’. The return can take the form of the ‘promotion of [the entrepreneur’s] personal interests’ or ‘values’ at the policy level or, in the case of ‘policy groupies’, simply because entrepreneurs ‘like the game’ and being ‘part of the action’ of policymaking (Kingdon 2013, p.123). John (1999 p.45) similarly described advocates/entrepreneurs as advancing policies ‘[p]artly for their own advancement’, and ‘partly out of curiosity’ as their fondness for the ‘game’ of policymaking led them to invest their resources to see what idea ‘replicates and takes hold’ at the policy level. This can be done deliberately through combination and refinement of policy ideas, or result from accidental ‘misconceptions in transmissions’ that see the policy idea combined (accidentally) with other ideas, or attached to a new problem/problem-frame, with stakeholders sharing of knowledge and information said to sometimes better be thought of as “Chinese Whispers” than informed discussion (John 1999, p.45; Jones, 1995; Kingdon 2013).

The goal for policy entrepreneurs is to conceive some way of ‘attaching [their pet proposals] to problems’, and to thereby convince policymakers of the merits of the entrepreneur’s position (Kingdon 2013, p.166). To be successful entrepreneurs must overcome the
‘constraints’ in the politics stream and/or identify ‘politically propitious events’ to push their favoured problem-frame/proposal (Kingdon 2013, p.166). Here policymaking comes to resemble Gramsci’s ‘civil society’, where entrepreneurs compete for attention in a ‘marketplace’ of ideas (Bates 1975, pp.353-361; Gramsci 1971; Jones 2007; Stone 2013). To gain a competitive advantage in this marketplace entrepreneurs marshal their evidence, with this inherently involving some degree of ‘overselling’ and/or ‘manipulation’ of the idea to the audience (Kingdon 2013 p.127, p.165, and pp.181-182). For Kingdon (2013 p.127, p.165, pp.181-182) such ‘overselling’, where entrepreneurs emphasise the merits of their pet proposal or problem-frame whilst ignoring its weaknesses, allows entrepreneurs’ better chances of success. Overselling enables entrepreneurs to use ‘any [propitious] crisis’ to push their problem-frame or proposal to policymakers, and this is accepted as part of ‘the game’ of policymaking (Kingdon 2013, p.182). Entrepreneurs that ‘qualify [their] analysis appropriately’, through (e.g.,) a thorough review of the strengths and weaknesses of their position risk policymakers ‘losing interest’ in the proposal (Kingdon 2013, p.127). As entrepreneurs have invested their resources into promoting a policy or problem-frame, and a variety of proposals and problem-frames are constantly competing for governmental attention, it is not in the entrepreneurs’ interest to ‘undersell’ their position, as this will undermine their potential for return on their investment.

There is, of course, an element of manipulation in over-selling policies as the act involves some skilful twisting of ideas to problems/problem-frames or vice-versa. Sabatier (1988 p.129) gave an example of this in his discussion of the twisting of the problem of ‘dirty air’ from its original environmental frame/venue to a public health frame/venue policy entrepreneurs eager to advance their ‘pet proposals’ for air pollution controls to prominence on the governmental agenda (Kingdon 2013). Underpinning this approach is the possibility that policy entrepreneurs have both an incentive and responsibility to look for problem-frames/venues where their ideas or their personal circumstances (e.g., interpersonal relationships) ‘might have competitive advantage’ to bring their ‘pet proposals’ to prominence’ (Kingdon 2013; Sabatier 1988, p.129; Weible & Sabatier 2006, p.129). Again, new frames/venues might be considered after an intentional/unintentional ‘reformulation of the policy idea’ caused by ambiguity between individual understandings of the idea as policy entrepreneurs go about their ‘restless search for something to propose’ (John 1999, p.45; Kingdon 2013, p.108). The implication, though, is that some ideas have, or are perceived to have, a greater likelihood of success in particular areas, which can lead to manipulation, overselling and evolutionary pressures on policymaking as entrepreneurs seek to utilise such advantages.

To be successful problem-framing and policy idea generation must be cognizant of the constraints in the policy stream, which constitutes the ‘“rules of the game”’ in policymaking (Baumgartner & Jones 2009, p.xxiii; Kingdon 2013, p.87). Where problem-frames or policy ideas create ‘friction’ within the politics stream (i.e., political, financial or technical
feasibility) the chances of success for a frame/idea are reduced (Kingdon 2013). Acting within the ‘rules of the game’ and/or gaining the support of politically-powerful individuals or groups can greatly enhance the possibility of a policy idea/problem-frame rising to prominence. Head (2010b pp.80-83) noted the importance of ‘professional’ knowledge and ‘expertise’ of actors in conveying ideas/frames to policymakers, and thus convincing the policymaker of the suitability of the idea/frame for the governmental agenda (see also Kingdon 2013 p.163-164). The implications of this are that even though a policy idea might be well-suited to a problem/problem-frame if it cannot be shown to be compatible to the ‘rules of the game’ in the politics stream, or fails to gain the support of politically-powerful actors it is unlikely to be able to achieve ‘higher agenda status’ in policymaking (Kingdon 2013, pp.163-164).

2.1.3 The Politics Stream

The politics stream represents the most important ‘promoter or inhibiter’ of a problem/problem-frame or policy idea’s place on the governmental and decision-making agendas (Kingdon 2013, pp.163-164). Policymakers might recognise a problem, and identify a potential solution, but if they lack the motivation, inclination, ability or opportunity to act the problem/frame/idea is unlikely to rise to prominence. This is because if the problem/frame/idea is incompatible with the ‘rules of the game’ by being antagonistic to public opinion or prevailing cultural norms (e.g., individualism vs. collectivism), running contrary to the goals or values of the political elite, or otherwise being politically unfeasible, and/or by being technologically or financially impracticable policymakers cannot, or perhaps will not, act (Baumgartner & Jones 2009; John 2012; Kingdon 2013). Like the other streams the politics stream is not static, with change resulting from ‘election results and swings in the popular mood’, or other factors or events that affect ‘how the media and other opinion-formers define public problems and evaluate the potential solutions’ to raise or lower barriers to policy ideas or problems/problem frames prominence on the governmental and decision agendas (John 2012, p.158).

The potential for change in the politics stream leads policy communities and entrepreneurs to ‘lie in wait in and around government with their solution in hand’ for ‘politically propitious events’ that offer an opportunity for communities/entrepreneurs to ‘attach their solutions’ to problem-frames or vice-versa (Kingdon 2013, p.166, p.181). Thus, again, policymaking comes down to the ‘persistence’ and ‘sheer tenacity’ in pushing and refining a pet proposal, and ‘perceptual, interpretive’ skill in identifying opportunities for advancement (Kingdon 2013, p.149, p.181). Such opportunities can emerge from macro-social change such as the rise in prominence of an issue in the public’s consciousness or the election of a new government, or through a successful appeal to the ‘[v]alues, interests, [and/or] personalities’
of politically-powerful actors combined with fortuitous ‘timing, circumstances and happenstance’ (Dawkins 2010a, p.231). Where policy entrepreneurs can apply or manipulate these micro-social factors by operating as ‘power-brokers, coalition-enablers, and manipulators of problematic preferences and unclear technology’ they can capitalise on the inherent ambiguity to use alternative forms of ‘knowledge’ as the basis for drawing attention to their pet proposal (Head 2010a; Zahariadis 2014, p.35). Head (2010a) noted the different roles played by various forms of ‘knowledge’ that served to constrain or encourage consideration of proposals at the government level. As Head (2010a) argued policymaking involves several different forms of ‘knowledge’ that constrain or encourage different consideration of policy solutions. These include ‘political’ knowledge which refers to the ‘tactics and agenda setting of political leaders and their organisations [that] sets the “big picture” of priorities and approaches’ for governments; the ‘professional knowledge of service-delivery practitioners and program coordinators’ that is ‘vital for advising on feasibility’ of a policy alternative; and the experiential knowledge of service users and stakeholders’ (emphasis in original). Together with ‘science’ these forms of knowledge have ‘legitimate voices in a democratic society’, but clash in a ‘competitive struggle for clarity and attention’ in policymaking (Head 2010a p.18-19). Dawkins (2010a p.231) likewise argued that policymaking ‘will be influenced by much more than objective evidence, or rational analysis’. Macro- and micro-socio-political factors involved in policymaking processes exert a constraining or permissive effect on the feasibility of a policy or problem frame, with this affected by actors’ presenting alternatives, marshalling evidence (and understandings of evidence) that affects governments’ ability or inclination to address problems. Alternatively, evidence combines and ‘competes’ with the features of the politics stream including the public opinion, the ‘philosophy of political parties, and ‘powerful politicians’ to influence the policymaking process (Haskins 2010a, p.29).

The thesis would alter Haskin’s (2010a p.29) last criteria – ‘powerful politicians’ – to instead reflect the more-general role of politically-powerful actors on policymaking processes. Politically-powerful actors would include the media, ‘organised political forces’, the ‘political elite’ and political parties, as well as ‘interest groups or other extra-governmental structures’ who can act to promote or restrict the prominence of problems/problem-frames or policy ideas in the governmental and decision agendas (Hill & Varone 2014, p.176; Kingdon 2013, p.150). Where policymaking encounters (or is expected to encounter) ‘intense opposition’ from these politically-powerful actors it is likely that even powerful politicians will back away from the issue, and vice-versa (Kingdon 2013, p.151). Thus, there are actors within the politics stream who can use their social, economic or political power to ‘assist legitimately elected officials in implementing their democratic mandates’ by supporting certain policies but, at the same time, these policy-promoting activities have the effect of ‘empower[ing] some groups rather than others’ (Goodin et al. 2012, p.907). Thus, policymaking again returns to Lasswell’s (1936) questions of ‘who gets what, when [and] how’, with the added complication of social and political power in the politics stream serving
as a key factor in the allocation of governmental attention to proposals, and thus to policymaking outcomes.

### 2.1.4 Social and Political Power in the Political Stream

Kingdon’s (2013 pp.43-44) framework took a pluralist view of political power, noting that political leaders (e.g., Prime Ministers, Presidents or elected officials) ‘cannot order that something be done and expect it to be done’, and challenged the idea that such leaders are ‘manipulated by powerful people accountable only to themselves’. In Kingdon’s (2013 p.44) view, ‘nobody dominates’ policymaking processes, though accepted that ‘to the extent that anybody is important it is elected officials and their appointees’. Interest groups are ‘very important’ in Kingdon’s (2013 p.44) model, but ‘primarily as blocking factors rather than actors who promote agenda items’ because they must ‘persuade elected officials’ of the merits of their proposals. Here Kingdon (2013 p.53) is following Heclo’s (1978) arguments that ‘the powers used to dominate the iron triangles’ in politics – the interaction and mutual support between interest groups, bureaucracy and congress – are prone to ‘countervailing forces [such as] consumers and environmentalists [that] are complicating their lives considerably’. At the same time, though, Kingdon (2013 p.53) acknowledged that policymakers do ‘pay more attention’ to certain groups, such as those that are ‘organised’ or ‘well-to-do’, than to other groups. This followed from Kingdon’s (2013 p.53) finding that transportation policymaking focused more on ‘aviation deregulation’ than ‘buses’, because proponents of the former were more organised and politically active, and generally wealthier, than proponents of the latter. Such advantages do ‘not necessarily insure that the group will dominate discussion of issues relevant to its interests or get its way’, as ‘supposedly powerful interest groups [were found to have] tasted defeat on occasion’ (Kingdon 2013, p.53).

The pluralist view of power underpinning Kingdon’s (2013) analysis is somewhat limited, in that it ignores the other dimensions (or ‘faces’) of power that inform policymaking (Lukes 1974, 2005). Lukes’ (2005) three ‘faces’ of power comprises Dahl’s (1956; 1958; 2005) pluralist view, Bachrach and Baratz’s (1962; 1970) agenda-setting form of power, and Lukes’ own manipulation-based view of power. In Bachrach and Baratz’s (1962, p.949; 1970, p.40) view powerful actors can act to control policymaking agendas so as ‘limit the scope of actual decision-making’ to issues that are ‘comparatively innocuous’ to powerful actors’ interests, and thereby actively exclude the less-powerful from policymaking processes to prevent challenges to the existing order. Lukes (2005 pp.25-26) adds to Dahl’s and Bachrach and Baratz’s faces of power a form of power as ‘inaction’ conditioned through the ‘socially structured and culturally patterned behaviour of groups, and practices of institutions’. Lukes
(2005 p.17, 28) seeks to push debate on power away from the ‘study of concrete, observable behaviour’ towards understanding that the:

supreme and most insidious exercise of power [is] to prevent people, to whatever degree, from having grievances by shaping their perceptions, cognitions and preferences in such a way that they accept their role in the existing order of things, either because they can see or imagine no alternative to it, or because they see it as natural and unchangeable, or because they value it as divinely ordained and beneficial.

Gaventa’s (1980 p.5, pp.16-17) work combined these three faces of power into a process where the first, Dahl’s pluralist form of power, sees ‘A’ hold power over ‘B’ because ‘A can get B to do something B would not otherwise do’ through plural debate. These actions or ‘victories’ can lead to the ‘non-challenge’ of A by B ‘due to the anticipation of the reactions of A’, as in the second face of power where the less-powerful do not challenge the powerful’s efforts to exclude them from the political stratum (Gaventa 1980, p.5, pp.16-17). The active exclusion of subaltern actors, views and values from the policymaking process can, eventually, result in the third face of power. In the third face A no longer has to act to exclude B from policymaking because of the development of a ‘sense of powerlessness’ and false consciousness within B, such that ‘resistance is eliminated or never created in the first place’ due to A’s having previously ‘shap[ed] B’s wants and beliefs’ (Antonsen 2009, p.186; Gaventa 1980, p.5, pp.16-17, p.256; Lukes 2005).

This three-dimensional view of power is used to extend Kingdon’s (2013) Multiple Streams framework of policymaking to explain how militarism and military or ex-military personnel were initially able to gain power in disaster theory and practice through pluralism. After this initial victory, militaristic principles were maintained as guides for disaster theory and practice through control of the agenda, as critiques of the utility of militarism as a foundation for disaster theory and practice from the 1960s onwards did little to change the course of disaster-relevant policymaking. This can be seen in the persistence of an asset-protection problem frame for disaster planning and management that perpetuated the idea of militarism as an appropriate guiding principle for disaster policies, and marginalised the views of social scientists, ecologists, geographers, and/or urban planners in policy debates. Eventually these blocking tactics gave rise to a false consciousness among both the public and disaster agencies by shaping perceptions such that militarism, including the concept of Civil Defence, came to be considered natural and beneficial principles for disaster planning and management. In Victoria, this three-dimensional power process led to Stay or Go being accepted as the most appropriate ‘coupling’ of Kingdon’s (2013) Multiple Streams in the Ash Wednesday policy window.
2.1.5 Kingdon and Coupling and Policy-Windows

Kingdon (2013, p.19, p.88) referred to occasions when the ‘conditions to push a given subject higher on the policymaking agenda are right’ as ‘policy-windows’. The potential for a policy-window is a key driving force in focusing policy communities’ and entrepreneurs’ attention to an issue, as ‘without the prospect of an open policy-window’ participants have little incentive to ‘invest their time, political capital, energy and other resources in an effort that is unlikely to bear fruit’ (Kingdon 2013, p.167). Identifying opening policy-windows is ambiguous; there are ‘some objective features [that] define a policy-window’, including election results, shifts in the ‘partisan or ideological distribution of seats’ in government, or a ‘shift in national mood’, but these require actors correctly interpreting the shifts’ implications of such shifts (Kingdon 2013, p.168, p.171). When mustering the push for their proposal stakeholders ‘perceive [the] presence or absence’ of a window, ‘estimate the likelihood of its future recurrence’, and can ‘misestimate or misperceive’ how far, it at all, a window has opened (Kingdon 2013, p.171). Where stakeholders miss a window, or choose the ‘wrong window’ to push their proposals the chances of success are slim. Alternatively, when stakeholders can accurately gauge the characteristics of a window propitious to a push for their proposal – i.e., can ‘couple’ their problem/problem-frame with policies that are acceptable to the politics stream – there is the opportunity for the greatest change in policy (Kingdon 2013, p.19, p.88, p.168).

The ambiguous opening of a policy-window illustrated the messiness of Kingdon’s (2013) framework. Stakeholders sensing an open/opening policy-window will hastily ‘dump their conceptions of problems, proposals and their political forces into the choice-opportunity’ to take advantage of the short opportunity to raise the prominence of their proposal (Kingdon 2013, pp.166-168, p.175). These opportunities see policymakers looking for policies that address the problem/problem-frame without causing sufficient ‘friction’ in the politics stream. If ‘one of the three elements is missing’, i.e. ‘if a solution is not available, a problem cannot be found or is not sufficiently compelling, or support is not forthcoming from the [politics] stream’, then the proposal’s ‘place on the decision agenda [will be] fleeting’ (Kingdon 2013, p.178). In line with Cohen and colleagues’ (1972) ‘garbage-can’ model of decision making Kingdon (2013) sees policy change as resulting from the mixture of ‘garbage’ – problems/problem frames, policy ideas/alternatives, as well as the wider socio-economic, cultural, and political (etc.) factors constituting the politics stream – available during the choice opportunity.

By analysing these factors it is possible to offer explanations for ‘why some subjects rise on the governmental agenda while other subjects are neglected, and why people in and around
government pay serious attention to some [subjects] at the expense of others’ (Kingdon 2013, p.196). Thus, to explain policymaking in relation to disaster it is necessary to reflect on the assumptions underpinning dominant problems/problem-frames, shaping the generation of policy ideas/alternatives and the factors in the politics stream that constrict or inform policymaking. This can be achieved by reflecting on the history of disaster both as a practice and a discipline, as prevented in the next section. From this general review of the principles of disaster theory and practice it is then possible to explain the development of Victoria’s bushfire management strategy and, ultimately, the selection of ‘Stay or Go’ as preferred public safety advice.

2.2 Disaster Planning and Management: Theory and Practice.

Kingdon’s (2013) framework helped guide the understanding and use of disaster theory and practice in the thesis. A historical sociology approach provided the context to analyse the ‘historical construction of risk’, which Bankoff (2012 p.32) defined as understanding ‘what makes people, households, communities and societies vulnerable or resilient in the present’ by investigating ‘what made them that way over time’. For Bankoff (2012 pp.34-35) disasters have a ‘dual nature’ as an ‘event and a process’; there are ‘discrete periods’ of event and response, with these preceded and succeeded by the events’ ‘antecedents and consequences’. This idea helped draw attention to the need for a thorough assessment of both Victoria’s fire services, and the wider societal factors that created the resilience or vulnerability of the Victorian community. The Multiple Streams framework helped explore developments in disaster theory and practice by focusing attention on the problem (or problem-frames) confronted by disaster planning and management organisations, the policies used to address these problems, and the wider ‘political’ constraints and drivers of these frames/policies. Kingdon’s (2013) vocabulary helped identify the dominant ‘problem’ in disaster theory and practice as the risk of human and property losses from a disaster event, resulting in policy alternatives focused on protecting against and mitigating such losses. This followed on from a view of disasters as ‘Acts of God’ that could not be prevented, only responded to and/or mitigated, and thus led to disaster organisations ignoring other problem-frames and policy solutions such as frames focused on vulnerability-reduction and associated development control policies (Clausen et al. 1978).

The prominence of the asset-protection problem-frame/policy can be explained by considering the ‘politics’ stream’s limiting and promoting effects on policymaking. Disaster-prone areas can be rich in natural resources (e.g., volcanoes and flood-plains offering fertile agricultural land; fire-prone areas offering highly-valued natural aesthetic and/or forest resources) that people seek to exploit, while socially- and politically-powerful actors such as military personnel helped frame and approach the disaster problem along asset-protection
lines. Thus, the ‘streams’ were coupled in a manner conducive to the centralising and militarising of both emergency services and community members to protect assets against disasters. Asset-protection frames and policies would be challenged in the latter half of the 20th century through social science, psychological, and geographical critiques of the efficiency and effectiveness of asset-protection as compared with (e.g.,) vulnerability-reduction as disaster policy, where developmental controls could limit exposure to risk and thus losses. However, the deeply-ingrained militarism of emergency service and disaster organisations coupled with the ‘historical construction of risks’ where socio-economic, cultural, and political factors had encouraged development in disaster-prone areas limited the scope for a move away from the asset-protection pathway, and thus see this ‘traditional’ approach to disasters remain dominant into the 21st century (Bankoff 2012, p.38; Granger et al. 2014; Takeda & Helms 2006).

To structure the analysis of tensions between disaster theory and disaster practice four key periods were identified. The first considered developments in disaster practice from the late-19th century through to the end of World War Two which saw militarism established as the foundation for emergency service and disaster organisations. This was partly due to a lack of alternative models, and belief in the efficacy of military-like methods of organising and responding to disasters qua ‘Acts of God’ (Clausen et al. 1978). The second period spanned the initial post-Second World War shoots of research into planning for and managing disasters through to the late 1960s where the threat of Soviet (or proxy) attack spreads America’s militaristic principles and assumptions of disaster almost ‘universally’ and sets both theory and practice onto a developmental pathway that would have ‘substantive consequences’ for future disaster-related organisations (Dynes 1994, 142; Quarantelli 1988a, p.1). The third period considered the social sciences challenges to the foundational, militaristic assumptions of disaster planning and management from the late-1960s onwards. These challenges sought to refocus the frames and policies for disaster planning and management towards a wider, risk-reducing approach informed by the social sciences. These challenges had some effect on policy in the fourth period, which covers the late-1980s onwards, through a slight increase in emphasis on development controls and other vulnerability-focused policies, as well as a partial shift towards a more networked, community-based approach to disaster planning and management. At the same time, though, the deeply-ingrained militarism in emergency service and disaster-relevant organisations meant that disaster-response, centralised planning, and Command-and-Control and Civil Defence remain prominent ideas in the policy primeval soup into the 21st century (Britton 1986b; Granger et al. 2014; Haddow et al. 2014; R. Jones 2005; Takeda & Helms 2006; Schneider 1992).

2.2.1 Disaster Pre-History to 1945
Disaster responses significantly predate disaster planning either as a theoretical discipline or as theory-informed practice. There are traces of disaster awareness and pre-planning in ancient history such as the ‘seismic cultures’ of Ancient Greeks, Romans, Incans and Ottomans incorporating '[e]arthquake-resistant architecture’ into buildings, while flood management has been practised for millennia (Bankoff 2012, pp.34-36; Luo et al. 2015). In fire management, however, response and recovery took precedence over pre-planning and mitigation until the mid-18th century at least. Roetter (1962) describes early fire services in the 1700s in England as resulting from insurance companies’ efforts to reduce their exposure to heavy payouts by putting out fires quickly, with ex-military and especially ex-navy personnel found to possess the skills and traits best-suited to fire-fighting. Thus, rather than creating its own organisational principles, assumptions and goals early fire services were managed and operated so as to capitalise on the compatibility of military and disaster practices.

A similar pattern of development occurred in Victoria, Australia where insurance companies’ and residents’ concerns about exposure led to the forming of fire services (Geelong Advertiser and Intelligencer 1853a). Prior to these semi-formal brigades forming in the late-1850s, and perhaps up to the Fire Brigades Act 1890 (Vic), fire risk had been managed through enthusiastic but ‘inadequate’ efforts of local residents (Marshall 1930, p.5; Murray & White 1995, p.19; Vic 1885). Luke and McArthur (1978 p.312) described early settlers ‘burn[ing] or plough[ing] firebreaks around their properties’ as the first efforts to mitigate fires with these generally insufficient to reduce fire-related losses due to the scale of the fire problem and disorganised nature of the action. Fire management prior to organised brigades, and perhaps prior to the passing of the 1890 Fire Brigades’ Act, involved ‘[b]esieged country people’ operating per the ‘law of each one for himself’ in fire mitigation and passing buckets of water back-and-forth from fire-fronts (Marshall 1930, p.5; Morwell Advertiser 1945a; Murray & White 1995, p.19). The result was ‘invariably disaster’ (Morwell Advertiser 1945a).

In response to growing community concerns about the deficiencies of Victorian fire management and the need for a ‘better organise[d] approach’ the state government convened the 1885 Select Committee upon the Fire Brigade System, which in turn led to policy change through the Fire Brigades Act 1890 (Vic) (Marshall 1930, p.5; Pyne 2015). Without a unique model for fire services the Select Committee (Vic 1885) based its recommended Victorian fire service on developments in other Australian states and in England and America, which followed a military-like model. The military model seemed a good fit for the problem at hand. Through the adoption of military drill and training for volunteers, and seeking to standardise tactics and equipment, Victoria’s nascent and fragmented fire-fighting groups could be transformed into an effective asset-protection force. These policy ideas were supported by contemporary politicians’ calls for Victoria’s fire services to be trained and constituted so they could ‘form a portion of [Australia’s] volunteer army’ to protect against attack ‘by a foreign foe’, which saw close organisational links formed between Victoria’s fire services and militias, and by actors with a social and/or economic interest in further development of
Victoria’s fire-prone areas (*Hamilton Spectator* 1877a; Marshall 1930; Murray & White 1995).

The links between military and emergency services and disaster organisations were institutionalised during World Wars One and Two, where Civil Defence groups came to be a vital component in counter-disaster (qua enemy attack) plans. The threat of total war during the 1930s following the development of aerial warfare exposed civilian assets and populations to risk, and thus required a mobilisation of the civil population to meet the threat. Baldwin’s\(^3\) (1932) warning that the ‘bomber will always get through’ focused attention on the need to create cadres of paramilitary and Civil Defence organisations to reduce the risk of panic and loss resulting from an enemy attack (Dynes 1983; 1994). The result was the various volunteer-based Civil Defence organisations such as the Air Raid Precautions Groups, Voluntary Aid Detachments, and British Home Guard (*AWW* 1940a; *Burra Record* 1939a; Dennis et al. 2008; *Sydney Morning Herald* 1929a). At the same time the war drew attention to deficiencies in more formal emergency service and disaster-relevant organisations. The capacity of British and Australian emergency services to respond to an aerial attack, for instance, was limited by a lack of trained fire-fighters *and* by irregular equipment across different fire brigades (*AWW* 1940a; Marshall 1930; Roetter 1962). Thus, the state took a major step into organising and resourcing emergency services by mandating standardised equipment (e.g., hose coupling sizes) to increase the resources that could be used in response to an attack (Roetter 1962). This investment in equipment, together with the investment in human capital resulting from the Civil Defence organisations led to political pressure to increase the return on investment by preserving the organisations and/or organisational forms into the post-war years (e.g., W. A. McLaren, Secretary of the Department of the Interior in *Canberra Times* 1952b). When these concerns combined with arguments (qua policy ideas) that the wartime effectiveness of such organisations could be carried over into peacetime the foundation for the latter 20th century emphasis on militarism and Civil Defence as the basis for successful disaster planning and management was assured, with this perpetuated both by the post-war geopolitical climate, and by the military’s post-war dominance of disaster theory and practice (Dynes 1983; 1994; Quarantelli 1987).

### 2.2.2 Civil Defence: 1945-1969

After World War Two America became a global leader in disaster research and organising for disasters, with both building on the Civil Defence apparatus developed during World War Two. The six million or-so ‘air-raid wardens, first-aid workers, rescue squads, auxiliary medical personnel, decontamination squads, auxiliary policemen [and] firemen, and aircraft spotters’ trained during World War Two represented a major investment in human capital

\(^3\) Stanley Baldwin, British Prime Minister.
that could, according to conventional wisdom, be carried over to meet both the new geopolitical and old natural threats facing America in the post-war period (Cooling 1971; 1972; Mauck 1950, pp.266-267). The major threat facing America after the war was defined as resulting from a ‘very practical’ risk of Soviet (or proxy) attack on America or its interests, including the possibility of a nuclear attack (Quarantelli 1987, p.288). As the problem-frame focused on the threat of military action, it made sense for militaristic principles, including a Civil Defence-orientation to public safety, to carry over into the post-war period.

The military’s claims to prominence in disaster planning and management – including a leading role in disaster research (see Quarantelli 1987) – were undoubtedly aided by a general uncertainty about ‘what emergency planning [should] be’, what organisational structure best suited disaster planning, and how best to reduce disaster-related losses in the post-war period (Dynes 1994, pp.142-143). The ‘doctrine of dual use’, and belief that an enemy attack was the gravest risk to national security, led the wartime Civil Defence apparatus carried over into peacetime (Dynes 1983; 1994, pp.142-143). Thus, the view developed that the ‘obvious, […] critical and perhaps only qualification [necessary] for emergency planners’ was prior military service (Dynes 1994, pp.142-143). As the American mainland had ‘never experienced a major external bombing raid’ during World War Two it was considered likely that the public would ‘react badly to future wartime attack’ by panicking, becoming ‘irrational [and] overly emotional’, and thus ‘ineffective in helping themselves and others’ (Quarantelli 1987, pp.288-289; Takeda & Helms 2006, p.205). In line with the wartime experience of Civil Defence organisations and the heavily militarised nature of early disaster planning and management the solution to such problems was to train and educate the community in proper responsive behaviours to evolve the “inept civilian” into an actor capable of ‘cop[ing] with emergencies’ (Dynes 1983, p.658; 1994, p.142; Takeda & Helms 2006, p.205). This involved attempts to ‘ingrain behaviours’ to facilitate ‘social control’ of the public’s response to disasters, with such training and education to be provided through schemes such as the ‘Duck and Cover’ response to nuclear attacks promoted by the ‘nationwide system of civil defence agencies’ produced by the American 1950 Federal Civil Defence Act (Cooling 1971; 1972; Dynes 1983, pp.657-658; 1994, p.142; Fritz & Mathewson 1957; Mauck 1950; Quarantelli 1954, p.272; 1897, pp.289-300; Quarantelli et al. 1980, p.105; Waugh 2000, p.26).

The early development of disaster planning and management as a discipline represented a feedback loop: the military’s leadership and focus on the problem of ‘enemy attack’ led to research into the likely effects of such an attack, often using natural or technological disasters as analogies. Military end-users of this research would cherry-pick and influence conclusions that supported a militaristic, Command-and-Control and Civil Defence approach to public safety and disaster response which, in turn, shored up the military’s hegemony in disaster planning and management (see Dynes 1994; R. Jones 2005; Quarantelli 1987). Quarantelli (1987 p.289, p.300) noted that end-users favoured research and research outcomes that explored and/or recommended the means through which ‘social control could be exercised by the authorities’ during emergencies. This can be seen (for example) in Fritz and Mathewson’s
(1957) research into convergent responses to disasters where the idea of panic among disaster-affected populations was challenged alongside a restatement of the need to ensure social control. These findings were interpreted by senior disaster planners and managers, however, as evidence of ‘widespread maladaptive behaviour’ that had to be minimised through changes to the physical environment, or through training and education schemes (Dynes 1983, pp.657-658). For Dynes (1994 pp.142-143) such early attempts at disaster research could be summarised as leading to outputs that ‘could be used to provide relief and assistance [for losses caused by] disasters other than enemy attack’, but had a ‘prime focus’ on ‘“enemy attack”’ and the means to mitigate such attacks. Quarantelli (1987 pp.294-298) would disagree, finding that the ‘major interest’ of disaster research patrons and disaster organisations was research ‘of an applied and wartime nature’, with ‘no noticeable interest in civilian disasters per se’. When a team of American researchers investigated the 1967 Hobart/Black Tuesday bushfires, for example, it was performed due to its ‘perceived similarity or parallel to potential wartime situations’ rather than as a ‘learning situation for a potential peacetime catastrophe’ (Anderson & Whitman 1967; Quarantelli 1987, p.305).

The newness of disaster planning and management meant that America’s heavy investment in research led American ideas to become the ‘universal’ guiding principles for disaster organisations, and militarism established as the ‘appropriate normative model’ for military, natural and technological disaster planning and management (Dynes 1994, pp.141-143; Quarantelli 1987, pp.294-298). Dynes’ (1994, pp.141-143) claim of the ‘universal’ spread of the American model for disaster management is somewhat exaggerated; the model unquestionably influenced disaster theory and practice in Anglophone and some European states, though Drabek (2007) shows the Soviet, Japanese and Italian models among others followed a different developmental pathway. The American model certainly spread to Australia, where Civil Defence-like organisations proliferated during World Wars One and Two, and Australian research readily incorporated the idea of ‘[b]lind panic’ as the ‘greatest menace’ in disasters (AWW 1940a; Commonwealth Forestry and Timber Bureau in Good Neighbour 1962a; Sydney Morning Herald 1929a). The skills of Australia’s Civil Defence volunteers were considered as applicable to aerial attacks as they were for any ‘severe epidemic[s]’ or natural disasters, and military organisations readily assisted during natural disasters during World War Two (The Age 1944b; 1944c; Sydney Morning Herald 1929a). The ‘dual use’ of such skills relied on ensuring both emergency service and community conformity to the ‘written plan’, by mobilising Civil Defence organisations and imposing ‘some kind of command and control’ system on the public with this reflecting the military’s early control of disaster research (Dynes 1983; 1994; Quarantelli 1997, p.41).

2.2.3 Social Science and Disaster Theory: 1960s-1980s
The military’s dominance of disaster theory and practice was reduced during the 1960s when some disaster research teams divested themselves of their military patrons. A key example is Quarantelli and Dynes establishing the Disaster Research Centre at Ohio State University in 1963 (Quarantelli 1987; 1988a; Quarantelli et al. 1986). The reduced influence of the military on disaster research led to a shift away from the five ‘narrowly focused applied questions [and] practical concerns’ that had hitherto guided research agendas and findings (Quarantelli 1988a, p.i). These questions are presented as image 1, below, which gave way in the 1960s to more general investigation into the ‘activities of the emergency organisations in the community’, and ‘human, group and national preparations for, and responses to, and recovery from community-wide emergencies’ (Quarantelli et al. 1986, p.1).

Image 1: The “Five Questions” for Disaster Research

1. Which elements in a disaster are most frightening or disturbing to people and how can these threats be met?
2. What techniques are effective in reducing or controlling fear?
3. What types of people are susceptible to panic and what types can be counted on for leadership in an emergency?
4. What aggressions and resentments are likely to emerge among victims of a disaster and how can these be prevented from disrupting the work of disaster control?
5. What types of organised effort work effectively and which do not?

(Quarantelli 1988a, p.4).

The new freedom allowed disaster researchers to challenge the foundational assumptions that had guided investigations, including the definition of what disasters are. Rather than an objectively focused ‘Act of God’ view of disasters social science researchers sought to re- imagine disasters as reflections of societal development. Barton (1969 p.38) for example defined disasters as ‘collective stress situations’ occurring when ‘many members of a social system fail to receive expected conditions of life from the system’. Quarantelli (1992 pp.8-9) followed this by arguing that disasters ‘only have consequences in a social context’, with Moore (2005 pp.68-69) likewise seeing events classed as disasters only where their negative impacts outweigh the benefits of the event; bushfires, for example, have negative impacts on people and property but also serve a valuable ecological function. Barton (1969 p.38) was reflecting on events’ and disasters’ effects on (e.g.,) the ‘safety of the physical environment […] provision of food, shelter and income’ among other factors for local populations, with events coming to be considered disasters where they impacted these ‘conditions of life’. At the same time, Barton (1969) provided a foundation for a conceptualisation of disasters as ‘part of the normal social fabric’ reflecting previous socio-economic, cultural, technological, and political actions rather than ‘exceptional events’ (Bankoff 2012; Gillespie 1988, p.347). Clausen and colleagues (1978 pp.61-62) followed this line of reasoning and argued against the view of disasters as “Acts of God” in favour of a view of disasters as “Acts of Human
Intervention” that might be mitigated or prevented through different land-use choices or other policy or developmental solutions.

That disaster represented a ‘relational concept linking man and his surroundings’ served as the basis for Hewitt and Burton’s (1971 p.25, 76) concept of the ‘hazardousness of a place’. Here disaster impacts are considered both a ‘function of the physical event itself and of the state of human society’, where the ‘natural elements which cause damage are, under more normal circumstances, sources of livelihood’ or enjoyment for people until the event surpassed the ‘limits of tolerance’ of the local population (Hewitt & Burton 1971, p.5, pp.11-12). Alternatively, hazards are ‘not simply unique situations unrelated to ordinary conditions’ but ‘implicit in the ordinary conditions’ with people incurring vulnerabilities to hazards because of the benefits of living or economically developing hazardous places under ‘normal conditions’ (Hewitt & Burton 1971, p.12). The benefits of living in a flood-plain or bushfire-prone area under ‘normal conditions’, for example, can lead to a ‘harmful inundation of property and land utilised by man’ (Hewitt & Burton 1971, p.93). Such an ‘ecological view of hazards’ offered a heuristic to measure benefits against impacts and impact frequency, and the potential for improved prevention, mitigation or response (Hewitt & Burton 1971, p.146). Efforts to develop predictive measures of disaster effects underlined, again, that disasters were not just ‘event[s] concentrated in time and space’, but the ‘actualisation of sociosystemic vulnerability’ (Pelanda 1981, pp.1-3). These arguments led Britton (1986a p.255) and Bankoff (2012 pp.34-35) to emphasise the ‘dual nature’ of disasters as a ‘normal’ ‘event and process’. In this view vulnerability is a product of both the frequency and intensity of the hazard and socio-economic, cultural, technological and political pressures to utilise the advantages of developing hazardous places (Bankoff 2012; Britton 1986a; Davis 1998; Hewitt & Burton 1971; Pelanda, 1981; White & Haas 1975).

The idea that people’s ‘adaptation (or mal-adaptation) to their total environment over time determines their social vulnerability’ to disasters gained some traction in policy discourse in both Australia and America in the 1960s and 1970s, but this was not readily translated into policy shifts that reduced vulnerability (Bankoff 2012, p.34; Britton 1986a; 1986b; Haddow et al. 2014). The increased receptiveness to alternative views of disaster in America and Australia reflected a spate of disasters in the 1960s and 1970s, which resulted in hundreds of millions of dollars of damage in both countries. In Australia, 1974’s Cyclone Tracy led Prime Minister Gough Whitlam (Whitlam 1974) to propose a ‘new emphasis’ on vulnerability to in Australia through policies for the rectification of the ‘ill-planned and over-crowded cities’ that were ‘exposing people to great danger’. Cyclone Tracy came after a spate of deadly and destructive bushfires in the 1960s had drawn public attention to the problem of disaster management, and Whitlam’s (1974) proposal suggested a shift in understanding of disasters in the country. In practice, though, Australia’s policymaking response meant militarism remained the dominant principle guiding Australian disaster management. This was reflected in the creation of a new central body, the Australian Natural Disaster Organisation (NDO), as
part of the Australian Department of Defence (Britton 1986b; R. Jones 2005). The result was that Australia’s disaster-relevant organisations remained committed to the ‘civil defence approach’ that had been ‘imported from wartime Britain’, and was ‘largely untested’ in the Australian context (Britton 1986, p.119). Jones (R. Jones 2005, pp.55-56) explained this as a consequence of the military personnel chosen to staff the NDO having only the ‘haziest ideas’ of how to plan for and manage disasters, and thus relying on the ‘old civil defence models’ that they understood. This can be considered one of the ‘substantive consequences’ of the military’s influence over disaster research and practice after World War Two (Quarantelli 1988a, p.i). The militarism infused into disaster-relevant organisations and ‘pioneering’ post-war research produced a ‘selective emphasis’ on ‘what and how the research was undertaken’, and thus supported the idea of Civil Defence as an appropriate public safety strategy during disasters throughout the 20th century (Quarantelli 1987, p.286).

2.2.4 Tensions: Disaster Research and Disaster Practice

The expertise and social and political power of militaristic disaster-relevant personnel allowed militarism to largely resist the challenges of the social sciences in disaster-related policy and practice. This resistance was one of the ‘substantive consequences’ of the military’s leadership in the early stages of disaster’s development as a discipline, and bolstered by the perceived similarities between military and disaster-relevant tasks (Quarantelli 1988a, p.i; Schneider 1992). Schneider (1992 pp.142-143) finds that ‘[o]n paper at least’, the two tasks were similar. The core features of disasters as understood in the traditional, militaristic view were a situation in which panicked members of the public required quick assistance from emergency services and disaster-relevant organisations. The assumed ‘stress and chaos’ of the emergency phase established a belief of the ‘overriding importance [of] maintaining standard operating procedures and the pre-established division of labour’ to ensure conformity with pre-determined plans, and thus to minimise losses (Fritz & Mathewson 1957, p.90; Schneider 1992, pp.142-143).

The re-emphasis of militarism and Civil Defence in Australia after Cyclone Tracy reflected “research” findings that demonstrated “all too often people don’t know what to expect and don’t know what to do when they are struck by a natural disaster”’ (Morris4 in Canberra Times 1975a). In response, the National Disaster Organisation (as part of the Australian Department of Defence) prepared a Civil Defence-inspired ‘national campaign to inform Australians about natural disasters’ that would ‘tell people what to do before, during and after emergencies [through] a series of posters, leaflets, press advertisements and films’ (Canberra Times 1975a).

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4 Bill Morris, Australian Minister for Defence.
The underlying goal of these programs was to impose new behaviours into the public’s disaster response to prevent panic and other ‘widespread maladaptive behaviour’ that was a hindrance to the counter-disaster effort (Dynes 1983, pp.657-658). Thus, it can be said that the traditional, military-inspired approach to disaster management survived the various social science and psychological critiques that emerged in the late-1960s against restricting choice in disaster response. Instead of adopting a democratic, psychologically- and social-science informed approach to public disaster safety relevant agencies remained committed to what was described as a ‘shut up and colour it in’ approach to public training and education reflecting the simplistic, authoritarian approach to public safety (e.g., Barton 1969; Britton 1986b; Hewitt & Burton 1971; Kahneman & Tversky 1979; Katona 1951; 1960; Kreps 1984; Pelanda 1981; Quarantelli 1981; 1984; Salter 1992, p.3; Scheibehenne et al. 2010; Simon 1957; 1979; White & Haas 1975).

Such findings helped guide the use of Kingdon’s (2013) Multiple Streams framework in explaining the post-Ash Wednesday selection of Stay or Go as Victoria’s preferred public bushfires safety strategy. The creation of the National Disaster Organisation within the Department of Defence underlines the persistence of military modes of thinking in Australian disaster planning and management. This persistence, together with the findings made through the ‘stories’ told of the developmental pathways of Victoria’s fire services and community are used to explain why the problem-frame and policy solutions remain focused on asset-protection pre- and post-Ash Wednesday. The militaristic expert knowledge and accompanying political power of senior disaster-relevant personnel combined with other constraints in the politics stream to see that the assumptions and principles guiding Victoria’s bushfire problem frame and policy solutions went more or less unchallenged after Ash Wednesday. A variety of alternative problem frames and policy solutions were suggested in the post-Ash Wednesday policy window but these were ruled out for being politically, technologically, or financially unfeasible. A coupling that attached the promising policy idea of a Civil Defence-like approach to public bushfire safety, however, would fit both with the asset-protection problem frame and a politics stream dominated by militarism, individualism, and a desire to further develop Victoria’s fire-prone country areas. When the idea of Civil Defence was combined with emerging ideas for sharing responsibility for disaster management with the community (e.g., Silberbauer 1990; Whelan 1987) it was possible to couple these policy ideas with the prevailing asset-protection problem frame, which resulted in Stay or Go being selected as Victoria’s preferred public bushfire safety policy during the post-Ash Wednesday policy window.

2.3 Research Questions
From this theoretical framework, several research questions emerged that guided the research. The first, and most prevalent question addressed sought to investigate ‘Why was Stay or Go selected as the preferred public safety advice in Victoria?’. This question is underpinned by several sub-questions, such as:

- ‘What assumptions and principles guided Victoria’s disaster management strategy/strategies, and (how) did these change over time?’;
- ‘What made people and property vulnerable to bushfires in Victoria and (how) did this change over time?’;
- ‘What were the roles and responsibilities of the fire services and community in fire management?’; and
- ‘(How and why) did these roles and responsibilities change over time?’.

2.4 Significance

The significance of the thesis lies in its deconstructivist, historical sociology approach to the development of Victoria’s bushfire management system. During a pre-PhD research project, it was found that the empirical underpinning of the ‘Stay or Go’ system was to not be statistically significant, and to have been produced almost a decade after ‘Stay or Go’ had been accepted as policy, and around 15 years after the CFA’s community training and education programs had begun to advocate ‘Stay or Go’ as the safest response to bushfire for the Victorian context. From this finding it was concluded that factors other than empirical/statistical evidence had produced widespread acceptance of the policy, and motivated a thesis that, perhaps uniquely, sought to analyse the role of socio-economic, demographic, cultural, technological and political factors on Stay or Go’s selection as policy using Kingdon’s (2013) Multiple Streams framework.
Chapter 3: Early Brigades c.1850–1944

This chapter considered changes to fire-fighting organisations in Victoria between Victoria’s establishment as a separate colony in 1851 and the introduction of the Country Fire Authority (CFA) Act (Vic) in 1944. The period can be summarised as the progressive formalisation and militarisation of fire-fighting and fire-fighting organisations. These foundations had substantive consequences for future public safety strategies, including contributing to the selection of Stay and Defend and Stay or Go, by imbuing Victoria’s fire services with militaristic principles that supported the later selection of Civil Defence-like methods to public bushfire safety.

In the 1850s fire-fighting was largely performed by individuals and emergent groups working in their locality, with this approach giving way in the mid-1850s to institutionalised fire brigades. This was a result of both the frequency of fire in Victoria, and recognition of the need for a more organised response to mitigate losses. These developmental forces continued in the 1870s as the individual brigades sought ever-closer links with neighbouring brigades, leading to the formation of the Country Fire Brigades’ Association. The Country Fire Brigades’ Association was a brigade-run cooperative that subsequently joined with the Metropolitan Brigades to form the National Fire Brigades’ Association of Victoria. The move to centralise began before the Victorian state government’s intervention in 1890, as brigades took it upon themselves to develop partnerships across the movement and eventually to form ‘voluntary’ Associations in the 1870s. These are ‘voluntary’ in the sense that brigades were free to decide whether to join or not, but would face sanctions if they remained unassociated (The Argus 1877b). The result was a degree of local brigade autonomy was (to a relatively low degree) passed to the new Country and National Fire Brigades Associations of Victoria, which was charged with developing standards for fire-fighting and equipment, disseminating best-practice, and for acting as an arbiter during disputes (Hennah in Vic 1885).

This new centralising body for fire management was a response to the recognised ‘futility’ of a locally-based approach to fire, where brigades operated on the principle of ‘each one for [themselves]’ (Morwell Advertiser 1945a; Vic 1885; Warragul Guardian and Buln Buln and Narracan Shire Advocate 1890a). The Associations held most of the responsibility for fire management in Victoria until recognised deficiencies in the Victorian bushfire management relative to the approach in other states prompted a Select Committee upon the Fire Brigade System (Vic 1885). The Committee’s criticisms included the lack of clear legislative framework for fire-fighting in Victoria, which together with a spate of major bushfires in the mid- to late-1880s created the ‘fast’ paced chain of linked events necessary to “‘build up some power to do something’” about bushfire-related losses (Aminzade 1992; Kingdon 2013, p.128). The ‘conjunctural event’ of the 1885 Select Committee meant that the developmental
pathway followed by Victoria’s fire services set the parameters for their gradual transformation into a state-run service, with the *Fire Brigades’ Act 1890* (Vic) a major step on Victorian fire services’ new centralising pathway.

To meet the frequent (and frequently severe) problem of fire amid ever-increasing use of fire-prone areas it was necessary to develop a better fire management system. Thus it was ‘generally agreed’ that fire-fighters and fire-fighting organisations needed continue on the centralising pathway and ‘join hands’ and share resources, expertise and responsibility to more effectively achieve the ‘common good’ of reducing fire-related losses (*The Argus* 1877a; 1877b; Marshall 1930). This principle guided the development of Victoria’s bushfire services, and in part explains how the ‘ruggedly independent’ volunteer brigades came to be agents of the Victorian state government (Murray & White 1995, p.71). To produce the most ‘common good’ it was necessary to place bushfire services on a ‘more substantial footing’, both financially and operationally, and to develop a ‘more uniform manner of procedure’ (*The Argus* 1877b). When the brigades’ and localities’ capacity to provide the resources to achieve the ‘common good’ were exceeded the next logical step was for closer links – especially financial links – with the state and private sector. These links would see the private and state exercise greater control over brigade functioning and management to create a trade-off between the brigade autonomy and accountability to the state/private sector.

### 3.1 The First Fire Acts and the Select Committee upon the Fire Brigade System: 1854-1890

The first significant fire-event that impacted Victoria after the state’s separation from New South Wales was the 1851 Black Thursday bushfires. Analysis of these fires is made difficult by the ‘sketchy and incomplete’ historical record of the fires (and of other pre-20th century fires; see Miller et al. 1984 Annexure G), but some broad points can be made. The causes of the fire have been identified as a combination of meteorological and human factors, with naturally (e.g., lightning) and deliberately-lit fires both contributing to the losses. Graziers, in particular, were identified as a major fire risk (Murray & White 1995). A letter to *The Argus* (1851a) pressed for an ‘inquiry [into] the causes of these fires being lighted’ around Mount Macedon, as the author identified the cause of the 1851 fires was graziers eager to gain ‘something green for a lambing flock’. The prevailing fire management strategy, too, can be outlined, as Luke and McArthur (1978 p.312) described early settlers ‘burn[ing] or plough[ing] firebreaks around their properties’. These actions developed into more organised partnerships to jointly prepare for and respond to fires, but at this stage fires were met by ‘besieged country people’ employing ‘inadequate’ means and operating according to the ‘law of each one for himself’ (Marshall 1930, p.5; *Morwell Advertiser* 1945a; Murray &
Despite these recognised causes and deficiencies in organisation, and the devastation caused by the fires (12 deaths, 500,000km² burnt, 1 million livestock lost COAG 2004), the state government’s response to the fires was slow and far from comprehensive. No new fire service legislation was constituted, and it took three years for legislation to be passed to address the issue of dangerously-lit fires (Act to Restrain the Careless Use of Fire 1854 (Vic)). The Act went against the preference for local control of fire management as it was somewhat paternalistic; it introduced restrictions on lighting fires near areas of heavy fuels between November and February and stipulated punishments for fires that ‘injured or destroyed’ the property of others (s.I; see also Act to Restrain the Careless Use of Fire 1856 (Vic)). The 1854 Act also encouraged local, rather than state, responsibility for fire management by allowing for ‘any person whomsoever to apprehend any person who shall be found committing any offence against any of the provisions of [the Act] and convey or deliver him to some Constable or other Peace Officer’ (s.III). Together these sections of the 1854 Act established the tradition of mixed social and legislative sanctions in fire management continued under the Bush Fire Brigades and the CFA (see Stretton 1939). The state was to restrict individual freedoms and punish law-breakers to protect the community, while the ‘community’ was empowered to self-policing to reduce careless or malicious fire-lighting. The 1854 Act was difficult to implement in practice – almost a century later ‘human agency’ would still be the cause of the overwhelming majority of fires (up to 98 per cent, see Daw in Kilmore Free Press, 1947a) – but the Act served as the basis from which to legislate fire-prevention activities in Victoria.

The Acts to Restrain the Careless Use of Fire (Vic) were the only Acts of Parliament passed in Victoria that directly addressed the problem of country or bush fire until the Fire Brigades’ Act 1890 (Vic). Municipal councils were empowered to prevent and fight fires under the Local Government Act 1874 (Vic) (s.449-450), and to ‘agree with any persons or associations for or with respect to providing the necessary labour and assistance for extinguishing such fires’. These powers were, however, more closely related to preventing fires within a township rather than in surrounding ‘country’ or ‘bush’ areas, and did not address the need for an organised fire-fighting service in country Victoria. Instead, fire management in these areas remained a ‘community’ responsibility, with the community eagerly fulfilling this responsibility. Brigades sprang up in the 1850s thanks to the importing of the people and ideas necessary to protect the ‘[i]mmense streams of people’ drawn to country Victoria by the discovery of gold (Marshall 1930 p.5). These new arrivals, particularly Americans and Britons, brought with them knowledge of fire-fighting and fire-fighting organisations. American arrivals contributed the concept of volunteer fire brigades, and the British the ‘London’ form of organising fire brigades (Murray & White 1995; Pyne 2015; Roetter 1962;
The latter underlined the importance of forming links with the private sector, particularly insurance companies, to supply and support the fire brigades.

The importance of the new migrants to Victoria’s nascent volunteer brigade movement can be seen in newspaper reports criticising the lack of such brigades in Victoria. Public opinion urged the ‘expediency of establishing a [volunteer] fire brigade’ to reduce the negative effects of fire in Victoria, with the American volunteer model highlighted as an example to follow (Geelong Advertiser and Intelligencer 1853a). The urgent need for fire protection was intensified by the ever-growing value of assets present in Victoria’s fire-prone areas. That there were ‘so many thousands of pounds worth of goods’ at risk of fire in Geelong alone meant that it was ‘almost impossible to have [fire-related] losses covered by insurance’, even before considering that insurance companies ‘refuse certain proposed policies’ due to the fire-risk (Geelong Advertiser and Intelligencer 1853a). Before the brigades formed in the early- to mid-1850s the community had ‘nothing whatever, either in the shape of engines or a brigade, for the protection of life and property’ (The Argus 1853a). These deficiencies were recognised at a town meeting in Geelong in 1854, which led to the forming of the first volunteer fire brigade in Victoria to counter the ‘apathy [that] prevailed’ at Geelong in fire management that risked the town’s ‘destruction’ by fire (Geelong Advertiser and Intelligencer 1854a).

At the Geelong town meeting an anecdote was reported of a fire in New Zealand, where one resident lost all their property due to their ‘obstinate refusal’ to allow local fire services to assist; the resident is said to have ‘trusted Providence, which had always protected him’ (Geelong Advertiser and Intelligencer 1854a). The story was told to demonstrate the ‘folly of trusting to Providence, without, at the same time, using every available means’ to reduce the risk (Geelong Advertiser and Intelligencer 1854a). By forming brigades Victorians could self-organise to better prepare for and respond to fire, and no longer had to trust ‘Providence’ to reduce fire-related losses. The seeds of a ‘better organis[ed]’ fire-fighting approach were being sown, however, that would result in the ‘upgrading and amalgamating [of] local resources’ to better manage local fire risk (Marshall 1930, p.5; Murray & White 1995; Pyne 2015, p.350).

As the fire risk grew amid continuing residential and economic development of fire-prone areas the local fire services eventually exceeded the carrying capacity of the ‘community’. Some municipal councils sought to support their local brigades ‘partially or wholly’ though others offered only a ‘meagre subsidy, barely sufficient to purchase a length of hose’ (Marshall 1930, pp.12-16). The CFA (2012g) likewise claimed that its ancestor-brigades received ‘little or no financial assistance’ outside of membership fees and local donations (see also The Argus 1872a). This resulted in an early example of the tension between central support and brigade autonomy. Murray and White (1995 p.30) described the rivalrous ‘Red’
and ‘Blue’ volunteer brigades operating in Castlemaine in the 1850s, with the former entirely self-reliant while the latter received municipal funding. The ‘Reds’ were accused of having ‘inadequate discipline, training and skills’, while the ‘Blues’ were deplored for having traded their autonomy for financial gain (Murray & White 1995, p.30). These tensions would persist through the first 100 years of fire-fighting organisations in Victoria, and draw the battle-lines between the Brigades and the state during negotiations for the CFA Acts. The brigades’ efforts to self-fund their activities were an immense source of pride for members and the movement, which led to a desire to assert ‘independence […] from local councils’ (Murray & White 1995, p.25, p.34). This took the form of ‘chook raffles’, and ‘concerts and balls’ but the state’s ever-increasing vulnerability to fire, together with advances in fire-fighting technology, led the brigades to reluctantly approach the private sector and state for support (Murray & White 1995 p.25, p.34). The ‘grudging, parsimonious support from businesses, insurance [companies] and the council’ served to ‘complement’ the brigades’ fundraising, but the difficulty in maintaining such funding together with the brigades’ feelings of indignity at having to rely on such (meagre) support created tensions between stakeholders (Ballarat Star 1870a; Murray & White 1995, p.25, p.34). Despite the increased support for brigades many were still ‘compelled to go round, cap in hand, begging for donations or to sing and dance to raise the wind’ merely to sustain their ‘bare existence’, with both brigades and residents ‘gradually, yet surely [becoming] obsessed with the idea that to establish and maintain brigades solely by local effort was an unfair and one-sided arrangement’ (Marshall 1930, p.16).

The brigades’ condition might not have been ideal, but it can be argued to have contributed to the cohesiveness of the movement. By being ‘left to fight the battle alone’ aside from an ‘occasional cheque for a guinea as a fitting reward for a particularly good “save”’, the brigades’ ‘financial investment’ in their own functioning provided them with a ‘vested interest’ in the movement surviving (Marshall 1930, p.16; Sampson et al. 1997, p.919). Marshall (1930 p.16) was surprised that ‘so many of [the] early brigades held together as long as they did’, but their difficulties likely served as a source of social capital and in-group bonding and benefits for members (Bourdieu 1986; 2010; Coleman 1988; Durkheim 1972). The ‘promise of glamour and companionship along with community service’ produced ‘more applicants for membership than [brigades] could use’ during the pre-1870 period, and therefore underlined the need for better organising principles to make use of the available human capital (Murray & White 1995, p.34).

The first steps towards better organising the available resources stemmed from the introduction of inter-brigade ‘Demonstrations’. These competitions helped re-emphasise the ‘lively spirit’ of mateship that had sustained the brigade movement, and provided the opportunity for brigades to become familiar with the personnel and condition of other brigades (Murray & White 1995 p.25). These meetings allowed brigade members to express their dissatisfaction with the ‘one-sided arrangement’ for funding bushfire brigades, to raise
new recruits, and to counter municipal and private sector accusations that brigade members were ‘haphazard’ in their activities (Stuart[^5] in Vic 1885, pp.69-70; Marshall 1930, p.5, p.16). More importantly the sharing of brigade experiences laid the foundations for brigades to follow the Metropolitan brigades in developing their own formal Country Fire Brigades’ Association that would merge with the Metropolitan Association in the 1870s into the National Fire Brigades’ Association of Victoria (Marshall 1930, pp.15-16). These Associations served as a lightning rod for the brigades’ ‘state of unrest’ resulting from the ‘one-sided’ financial arrangement sustaining their activities, and thereby contributed greatly to the brigades’ input to the *Fire Brigades Act 1890* (Vic) (Marshall 1930 p.16).

### 3.2 Associations and Centralisation: Brigade Management c. 1870-1890

As can be inferred there was a lag between the Associations’ pressing for greater support from the state and private sector, and the passing of the *Fire Brigades’ Act 1890* (Vic). The lack of state interest in passing any supporting legislation between the forming of the brigades in the 1850s and the 1890 Act led the brigades to form their own Associations. These Associations were intended to place the brigades and fire management more generally ‘upon a [more] substantial footing [with] a more uniform manner of procedure’ (*The Argus* 1877a; 1877b). The Country and National Fire Brigades’ associations were administered by the brigades, and so the brigade movement’s autonomy was more or less maintained, though individual brigades did lose some of their decision-making power. The Associations sought to build the brigade movement by offering ‘opportunities for meetings to compare notes and to benefit by an exchange of experience’, but were established as superior to the brigades in the organisational hierarchy (Hennah[^6] in Vic 1885, p.64). The brigades’ subordination is reflected in the Association’s role in ‘consider[ing] questions affecting the interests of firemen generally’, and role as a ‘court of arbitration in disputes between brigades’ (Hennah in Vic 1885, p.64). The Association was also empowered to exclude or expel any brigades deemed ‘antagonistic’ to the movement through its powers to promote and ‘better enforce’ ‘good order and discipline’ (*The Argus* 1877b).

The definition of ‘antagonistic’ is not clear, as it seems that a brigade could be considered antagonistic if it refused to join the Association. When the motion for a National Fire Brigades’ Association of Victoria was carried in 1877 it included provisions to ‘deal’ with brigades that ‘did not belong into [sic: register with?] either association’ (*The Argus* 1877b). Members of the Associations considered there was ‘little or no ground’ for not joining an

[^5]: Henry Stuart, Captain of the Beaufort Fire Brigade.
[^6]: William Hennah, President of the Victorian Country Fire Brigade Association, and Captain of the Ballarat City Fire Brigade.
Association, as any brigade joining ‘would benefit themselves’ (The Argus 1877b). To force the matter, the Associations agreed to send ‘notice […] to all non-associated brigades informing them that they will be cordially welcomed into the Association’, and, somewhat threateningly, ‘that unless they connect themselves with either body within three months they will be liable to be shut out altogether’ (The Argus 1877b).

Threats of permanent exclusion from the formal brigade movement seem antithetical to the voluntary, independent spirit that grew the brigade movement, but were understandable. The negative media representations of volunteer brigades hurt the movement’s public and political standing, with the centralising Associations an attempt to alter such negative perceptions. The Associations spent most of their time considering ‘matters affecting [brigades’] work and discipline’, as volunteers remained ‘very lax’ in the 1870s and 1880s (Marshall 1930, p.15; see also Marshall in Vic 1885, p.25). The perception of brigade ‘laxness’ informed ‘insurers and councils’ views of brigades, with these bodies unwilling to support ‘poorly disciplined’ volunteers attracted to the fire services as much by the glamour of the role – and access to the brigades’ clubhouse – as by a desire to serve their communities (Murray & White 1995, pp.50-52). Such criticisms were noted in the 1885 Select Committee upon the Fire Brigade System where Catt⁷ (in Vic 1885, p.47) reported instances of volunteers arriving ‘late’ to fires, and being more effective ‘in destroying property than in saving it’. The latter point is evidenced by an account of volunteers attending a fire at commercial premises having ‘fairly washed the place away’, as volunteers (inadvertently) destroyed property worth ‘£2,000’, while the fire itself caused damage of ‘about £250’ (Catt in Vic, 1885 p.47). Senior personnel had ‘no control’ over such personnel, undermining the effectiveness of Victoria’s fire management strategy and creating pressure for legislation to address these noted deficiencies, with this leading to the 1885 Select Committee (Vic, 1885 p.47) and, eventually, to the Fire Brigades’ Act 1890 (Vic).

The 1885 Select Committee, while sympathetic to the volunteers’ plight, accepted that Victoria’s ‘rapid growth’ had created the need for a better organised fire brigade system, involving improved training and resources and, more importantly, better discipline and organisation among volunteers (Vic 1885 p.iii). The Select Committee heard numerous concerns regarding the ability of a ‘voluntary’ Association to enforce these standards (including Catt’s described above), and of the ability of the brigades and Associations to properly organise themselves for fire. The Select Committee (Vic 1885, p.iii) found that the brigades’ arrangements for collaboration in fire-fighting all-but precluded an ‘efficient’ response. Collaboration between three country brigades serving Geelong and surrounds, for example, relied on a ‘verbal understanding’, where two brigades worked ‘fairly’ well together, whilst the third tended to ‘work distinct’ (Ashmore⁸ in Vic 1885, p.63). Hennah (in Vic 1885 p.65) and Marshall (1930) reported that such informal arrangements were common in

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⁷ Richard Catt, Captain of the Municipal Brigade of Hotham.
⁸ George Ashmore, Station-keeper and secretary of the Geelong Brigade.
Victoria, where one brigade captain’s deferment to another was left to a verbal ‘arrangement’. These ‘arrangements’ were complicated by lax controls over the brigades established ‘independent of [registered brigades’ captains and outside the more formal brigade movement] altogether’ that could disrupt fire-fighting operations by their presence, or by their (mis)use of available resources (Hennah in Vic 1885 p.66). Hennah’s (in Vic 1885 p.65-66) proposed solution was a Board of Control ‘for each city or town’ that held the authority to organise and direct brigades. Further, the lack of institutionalised links between brigades limited the resources that could be effectively utilised during fires, with this problem compounded by a lack of standardised equipment (e.g., hose coupling sizes) between brigades (Marshall 1930; Ashmore in Vic 1885, p.63). To address such issues Ashmore (in Vic 1885 p.64) suggested appointing ‘some recognised head of brigade affairs [to] take charge at fires’, and centralising procurement, planning and practices between these brigades.

It was hoped that centralisation, backed up by legislation empowering the brigades, would address the key issues undermining an effective and efficient fire service including inter-brigade squabbles over authority, duplication and/or waste of resources, and the need to ‘hunt for the mayor’ to gain authority to fight threatening fires (Hennah in Vic 1885, p.66). Against this view some argued that new legislation and centralisation would negatively impact firefighting by limiting brigade autonomy. Palmer⁹ (in Vic 1885 p.61) argued that in areas where there was ‘only one brigade [it] should be governed by the captain alone, because, if there is a Board there [would be] a great deal of dissatisfaction’ due to the lost autonomy of captains, and a general view that a brigade overseen by a ‘captain would work better than [one overseen by] a Board’ (Palmer in Vic 1885 p.61). Morgan¹⁰ (in Vic, 1885 p.63) also believed that a central Board would not ‘suit’ the country brigades, and instead the country system should be managed locally by brigades, municipalities, and insurers who ‘appoint their own Boards’. Hennah (in Vic, 1885 p.66) agreed with this view. Such disagreements underlined the tensions between different levels of governance affecting the brigade movement. Disputes arose between larger country towns and smaller settlements, with the former favouring ‘local control through district boards’, and the latter hoping to avoid ‘comprom[ising] the authority of the captain with a supervisory board’ (Murray & White 1995, p.50). Marshall (in Vic 1885, p.22), who would become Chief Officer of the Country Fire Brigades’ Board in 1894, considered it ‘absolutely necessary to superintend the working of fire brigades’ through a central board, and expected that such a board would be better able to lobby government for funding. At the same time, though, Marshall (in Vic 1885) recognised the need for volunteer representation on any new board (or boards) to protect brigade autonomy, with this tension between central and local control coming to be a recurring theme in the development of Victoria’s fire services.

⁹ Thomas Palmer, Captain of the Ararat Volunteer Fire Brigade.
¹⁰ Charles Morgan, Engineer and ex-captain of the Sandhurst Fire Brigade.
3.3 Brigade Management under the 1890 Fire Brigades’ Act

The arguments between the pro-autonomy and pro-centralising factions became a feature of debates on how to improve brigades for the next 60 years. At the end of the 19th century the issue was (temporarily) resolved in favour of the pro-centralising faction through the Fire Brigades’ Act 1890 (Vic). Given the lag between the 1885 Select Committee and the passing of the Act it can be said that the Committee was not the determining factor in the policy change. The spate of major fires between the 1885 Select Committee and the passing of the Fire Brigades’ Act 1890 (Vic) undoubtedly drew policymakers’ attention to the problem of fire, while the fast-pace and sequential order of the events involving fires in 1885, 1886, 1887 and the 1885 Sub-Committee provided both the inclination, motivation and ability for policymakers to do something (Aminzade 1992; Kingdon 2013). Tensions would remain between the competing factions but, for now, the pro-autonomy force was lulled by the provision of statutory protections against litigation, and the prospect of better funding and resourcing. The 1890 Act would fall short of the 1885 Select Committee’s (Vic 1885, p.iii) recommendation that ‘all volunteer brigades come under the controls of [a] Board’ due to the lack of provision for bush fire brigades, but the 1890 Act would represent a key ‘fork in the road’ that meant the bush fire brigades’ time as an autonomous movement was limited (Aminzade 1992, p.463). The Fire Brigades’ Act 1890 showed Victoria’s state government recognised the deficiencies in its fire management system caused by the lack of legislative framework for fire-fighters. When the bush fire brigades and the fires they fought came to prominence after demographic changes to forest and ‘bush’ areas in the early 20th century they too would come under the control of the state. At the time of the 1890 Fire Brigades’ Act (Vic), though, the Victorian state government had only just began its experiment in centrally managing volunteer fire brigades, and was hard-pressed to convince the independently-minded and brigades of the benefits of centralisation.

The Victorian state government recognised that the Fire Brigades’ Act 1890 (Vic) represented a major transfer of powers from the local to the centre, and that this was likely to provoke hostility among the brigades and community. Indeed, The Argus (1873a) identified fire services being placed under the state’s ‘responsible control’ as the main factor in brigade unease at discussions over a fire brigade act. The Act sought to mitigate this hostility by including provisions for nine Local Committees to serve as conduits for local concerns to the centre, and by ensuring that the Country and Metropolitan Brigades11 were overseen by separate Boards of control. In practice, though, neither concession was particularly relevant to local concerns. The Local Committees were quietly withdrawn in the early years of the Act,

11 A capitalisation of Brigade indicates (except in the case of typos) that these are groups of fire-fighters operating under the umbrella of a Fire Brigade Act.
while the Country Brigades’ were given a minority representation on the Country Fire Brigades’ Board (Bendigo Advertiser 1890a). Of the nine members, three were appointed by the Governor in Council;¹² two by the municipalities; two by insurance companies; and two by Country Brigades (Fire Brigades’ Act 1890 (Vic) (s.8)).

As the Country Fire Brigades’ Board was responsible for all Brigades’ resourcing and staffing matters, for ‘superintending and enforcing all necessary steps for the extinguishment of fires’, and for forming, amalgamating, and disbanding Brigades, the Brigades’ minority position on the Board was a source of concern (Fire Brigades’ Act 1890 (Vic) (s.28-31)). Where the Brigades goals, ideas or values conflicted with the Board’s, the Brigades’ interests were unlikely to be prominent in the Board’s decision-making processes. Thus, any hope that ‘local government would have the same strong role’ in Victoria as it did in British fire management was not realised (Murray & White 1995 p.58). The Brigades were given the central body necessary to work towards standardised equipment, and formalise fire management plans and inter-brigade operational arrangements, but had lost a significant portion of their decision-making power, as well as autonomy in identifying and managing local fire risk, as country fire-fighting came to be the responsibility of the state.

In theory, local interests could be communicated to the centre through the nine Local Committees. Prior to their dissolution these were made up of one representative each from the municipal council, who was to be the chairman of the committee, the brigades and the insurance companies. However, the powers and usefulness of these bodies was limited after the passing of the Fire Brigades’ Act 1890 (Vic) (s.10). The nine Local Committees were granted ‘advisory powers’ to represent the nine country districts of Victoria to the Country Fire Brigades’ Board in exchanging for fulfilling the commands of the Board (Murray & White 1995, p.58). This ‘advisory’ position underlined the Local Committee’s subordination to the central Board. The Committees were required, for instance, to take ‘measures to facilitate the formation of permanent or volunteer fire brigades’; ‘acquire for the Board or dispose of plant’; and ‘establish schools of instruction and issue certificates of qualification in fire-extinction to members of the fire brigades’, with these duties dependent on the ‘approval of the Country Board’ (Fire Brigades’ Act 1890 (Vic) (s.31 ss.1-5)). That all the Brigades in country areas were now trained, resourced, and directed by a Local Committee that was in turn overseen by a Board underlined the centralising of volunteer fire-fighting. The Committees lacked executive powers, and thus failed to establish a ‘worthwhile role’ in the new fire-fighting system outside of fulfilling the Board’s commands; this led to their being ‘faded out after a few years’ (Murray & White 1995, p.58). Melbourne’s ‘dominance as an administrative capital’ meant that the Committees were unnecessary, and thus removed, amid Brigade concerns that they had been taken over by a ‘body essentially metropolitan in its character’ (Marshall 1930; Murray & White 1995 p.58; Warragul Guardian and Buln Buln and Narracan Shire Advocate 1890a).

¹² The 1890 Fire Brigades’ Act (Vic) (s. 8) makes no reference to the criteria for these appointments.
When added to the inherent loss of Brigade autonomy produced by their marginal position on the Country Fire Brigades’ Board, the loss of the Local Committees intensified the Brigades’ ‘decidedly stormy’ attitude toward the Board (Murray & White 1995 p.60). It was expected that the Brigades would subsequently be managed ‘in a manner that will be found impracticable outside the metropolitan boundaries’, and without any reasonable way of protesting such arrangements (Marshall 1930; Murray & White 1995; Warragul Guardian and Buln Buln and Narracan Shire Advocate 1890a). ‘Sections’ of the Brigade movement were described as fundamentally opposed to the ‘whole idea of a Board based in Melbourne taking charge’ of their activities but had little power to resist the changes produced by the 1890 Act (Murray & White 1995 p.60). The Warragul Guardian and Buln Buln and Narracan Shire Advocate (1890a) reported that the management structure created by the Fire Brigades’ Act 1890 (Vic) led to ‘friction’ between Brigades and the Board, as Brigades believed they ‘have no voice’ in fire management decisions. Despite the gains through centralisation the Brigades felt that, due to their lost autonomy, there was ‘no advantage whatever gained from the Country Fire Brigades Board’ (Marshall 1930 p.24). The Board was considered a ‘perfect misnomer; [as] how could a country system possibly be regulated from Melbourne?’ (Marshall 1930 p.24). Municipal councils, likewise, ‘chafed at the management of the local Brigades being taken out of their hands’, and, like the Brigades, resented the so-called ‘Country (Melbourne) Fire Brigades’ Board’ (Marshall 1930 p.27). The Brigades and Municipalities agreed that if the Country Fire Brigades’ Board were ‘wiped out of existence, the fire brigades would be in a much more efficient state than at present’, as there was ‘no possibility of the Municipalities [and Brigades] working in harmony with the Board’ (Marshall 1930 p.24). This ill-feeling was intensified by insurance levies being ‘considerably increased’ to meet the costs of the 1890 Act, despite Brigades and Municipalities receiving little in the way of additional resources (Marshall 1930 p.24). The Brigade movement appeared on the brink of fracturing when dissent over lost autonomy combined with these new financial obligations. Ballarat municipal council refused to pay its contribution to the Board on the basis that ‘the larger Municipalities […] gave very large contributions [yet] had only the same voting power’ as smaller contributors on the Board (Marshall 1930 p.24). Ballarat council backed down, yet tensions remained between all concerned that plagued the early years of the Country Board and threatened the future of the 1890 Act.

In 1892 a Brigade and municipal deputation approached the Country Fire Brigades’ Board to ‘urge the desirability’ of abolishing the Board, arguing that the ‘mismanagement and cost of the Board’s administration’ was evidence that a return to a local, decentralised system of fire management was preferable (Marshall 1930 p.24-25). If the Brigades’ terms were not addressed there was a real risk that they would refuse to register with the Country Fire Brigades Board, and Marshall (1930 p.20) noted difficulties in securing Brigade registrations in the first months of the Board’s operation. The Country Board came into operation on 1 January 1891, yet by 20 August 1891 ‘only 25 out of 50 gazetted [brigades]’ had taken steps
to become ‘eligible for registration’ under the *Fire Brigades’ Act 1890* (Vic) (Marshall 1930 p.20). Even registered Brigades were unhappy with the new arrangement and sent ‘upwards of 40 letters protesting against any change’ to their circumstances (Marshall 1930 p.27). This unrest continued into the 1892 Municipal Conference where ‘[a]lmost every representative’ opposed the concept of the Country Fire Brigades’ Board ‘with great unanimity’ due to the belief that there was ‘sufficient intelligence in the various towns and shires to manage the brigades without any central board in Melbourne’ (Marshall 1930 p.23). Marshall (1930 pp.23-24) reported a resolution passed at the Municipal Conference that:

all local bodies represented at this conference be respectfully requested to ask their Parliamentary representatives to give their active support toward the amendment of the *Fire Brigades’ Act 1890* [(Vic)] so far as may relate to the Country Fire Brigades’ Board; that the same may be repealed and, that in lieu thereof, all fire brigades be placed under local control, such control to be composed of one representative of the Government, local councils, insurance companies, and the local fire brigade.

Marshall (1930), who became Chief Officer of the Country Fire Brigades’ Board in 1894, considered Brigades dissatisfaction a corollary of the Board’s early struggles. The ‘stormy era’ was, in part, a result of the Board members having ‘nothing like an example to follow’ in their efforts to bring centralised direction and organisation to a predominantly volunteer firefighting service made up of autonomous, emergent groups (Marshall 1930 p.26). Worse, many of the stakeholder groups (e.g., the ‘Red’ and ‘Blue’ Brigades; the Brigades and the municipalities; and the Brigade-municipality-insurer triangle) had a history of hostilities (Marshall 1930 p.26; Murray & White 1995). As a result, Marshall (1930 p.26) argued that the Country Fire Brigades’ Board enjoyed ‘more than a moderate measure of success’ despite ‘many hard knocks [being] given by both sides’ in the first years of the Board. Furthermore, and testament to Marshall’s (1930 p.26) leadership, he considered the Brigades’ ‘strenuous and lengthened opposition’ to the Board had ‘left its mark for the good’ on the new system. These open disputes allowed for all involved to develop a ‘better understanding […] as to the future working of the country fire service’ (Marshall 1930 p.26). Justifiably, then, Marshall (1930 p.30) claimed the eventual success of the Country Board as something of a personal triumph and, given Marshall’s innovative approach to conflict-management, it might be argued that his actions saved the 1890 Act by ‘bearding’ the Brigade ‘lions’.

Marshall’s (1930) innovation, and the key to the Act’s success, was to offer practical evidence and examples of how the Act and Country Board could improve individual Brigades. On his first tour of a dissatisfied Brigade, Marshall (1930 p.30) initiated a practice drill which produced a ‘failure’ as a Brigade member made a mistake. Marshall (1930 p.30) ‘saw where and how the mistake had arisen and, kneeling down, [he] showed the man how to correct it’.
Marshall (1930 p.30) allowed the man to practice and the team made ‘no mistake’ the second time. This became a cornerstone of Marshall’s (1930p.30) leadership: he ‘never showed a man up when he made a mistake’, and instead offered training and assistance as a sample of what the Country Board could offer the Brigades. Similarly, Marshall (1930) showed himself willing to work with local leadership to identify larger concerns and areas for improvement, and then devise schemes to address these. The most notable ‘scheme’, in both the planning and plotting senses of the word, was Marshall’s (1930) efforts to improve fire stations.

Marshall (1930 p.34) was ‘struck with the poor accommodation provided for the comfort of the firemen and the housing of the appliances’; this became a core focus for improvements under his leadership. In what he described – inaccurately – as a ‘self-help’ scheme, Marshall (1930 p.34-35) approached Brigades personally ‘without the hall-mark of the Board’ and suggested that the Brigades approach municipalities, insurance companies and the Country Board with a proposal for a new station, with the Brigades instructed to report that they could find a suitable site for a new building and meet half of the cost. This show of initiative would be warmly supported by the Brigades. Later the Brigades’ contribution would fall to a third as Marshall (1930 p.34-35) would lean on the municipalities by pointing out that it was they who would ‘derive the greatest benefit from these improvements’ (Marshall 1930 p.35).

Through such schemes, and his disregard of proper procedures to support the Brigades, Marshall (1930) gained considerable support and loyalty from Brigade members. In return for registration the fire stations of ‘over 100’ brigades were improved, while later ‘schemes’ were employed to provide ‘high-priced equipment, including manual and steam engines […] motors for transit and motor pumps’ and other fire-fighting equipment to the Brigades (Marshall 1930 p.35).

Marshall (1930), then, was instrumental in soothing the Brigades’ concerns over their lost autonomy. In return for modern, ‘high-priced’ equipment Marshall (1930 p.35) would meet the Brigade and ‘put every man individually through a course of fire-practice’, to both help them understand how to use the machinery and ‘give them some idea of discipline’. The Brigades were therefore subtly disciplined to accept the Board’s rule, while their loyalty to Marshall was increased. After being trained and equipped the Brigades would be put ‘on probation for a few months’, when Marshall (1930 p.35) returned and evaluated the Brigade. Special focus was given to the Brigade’s captain, who was given ‘opportunities to show his aptitude or the reverse for [the] important position’; in the event of the former, Marshall (1930 p.35) would recommend that the Brigade members be passed and registered, whereas in the latter case the Brigade would be replaced by new recruits. This mix of leadership traits was undoubtedly motivated by a concern for the betterment of the fire-fighting service in country Victoria, but it was also a shrewd tactical move. The Brigades were brought to heel by the Country Board, and their survival made dependent as much on their satisfactory performance as on the Board’s financial support, with both fostering Brigade loyalty to the Board.
Marshall’s (1930) diplomacy and tact helped the Fire Brigades’ Act 1890 (Vic) succeed, and thus produced substantial improvements in Victoria’s volunteer fire-fighting services at a time when the brigade movement was at risk of stalling. Prior to the 1890 Act Brigades’ fundraising efforts had become ‘increasingly unreliable and disheartening’, leading to a ‘state of unrest’ and a plan to ‘take up the question of [Brigades’] establishment and management’ with the state and private sector (Marshall 1930, p.16). Given that the state and private sector were reluctant benefactors prior to the Fire Brigades’ Act, it might be considered that the Brigades’ appeals would not have been successful without the new legislation. The 1890 Act (s.42 ss.2) required insurance companies, Municipalities and the Victorian Treasury fund Brigades, with each to meet a third of Brigade expenditure. In practice the arrangement was hindered by an economic collapse that ‘restricted the flow of revenue’ to the Brigades, and thus required that Marshall draw another string from his bow (Murray & White 1995, pp.60-61). Marshall had been a Lieutenant-Colonel in Victoria’s Militia and, in his previous roles as a fire-fighter and headmaster, had been known for his fondness for military-style drill to promote ‘standards of discipline’ and ability (Marshall 1930, p.63, p.89; Vic 1885). These abilities, together with Marshall’s (1930) charisma and compassion, served to smooth tensions resulting from the Brigades’ financial difficulties. During his first tour of Victoria’s Brigades as Chief Officer Marshall (1930) noted hostility among volunteers due to the perceived intrusion of the Board into Brigade affairs. Marshall’s (1930 p.30) memoirs noted a particularly ‘hostile reception’ waiting him at Warrnambool, which he met through a ‘fighting mood’ and willingness to demonstrate his aptitude for the role, and to work with the Brigades for their betterment. The result was a more ‘cordial’ relationship between Marshall and Brigades, though events at the centre continued to stoke the Brigades’ resentment regarding their loss of autonomy (Marshall 1930, p.30).

Marshall’s (1930) building of personal relationships with Brigades and efforts to instil the ‘advantages of stricter discipline’ into the volunteer movement served to raise the standard of human capital available to Brigades (Murray & White 1995, p.61). At the same time, the promotion of military-like discipline helped mitigate Brigade unrest at the ‘restricted’ funding and other financial matters associated with both the Fire Brigades Act 1890 (Vic), and the revised Fire Brigades Act 1891 (Vic) (Marshall 1930; Murray & White 1995, p.61). The 1891 Act increased the Brigades’ financial reliance on the Board, and thus the Board’s control over the Brigades, by allowing the Fire Brigades’ Board to float a loan of up to £100,000 (Fire Brigades’ Act 1891 (Vic) (s.2-3)). The loan was to purchase and upgrade plant owned by municipal councils, and thus ease the councils’ financial difficulties, but was poorly marketed to either Brigades or councils (Marshall 1930). It was expected, for example, that some of the loan would be used for the ‘payment of salaries’ of Country Board personnel, at the expense of the Brigades and local councils (Bendigo Advertiser 1890a). The Municipalities expected that their payments to the Brigades would be increased to service the loan, leading to protests by the Municipal Association against the Country Fire Brigades’ Board in 1892 (see Marshall 1930). Municipalities were already aggrieved by the high cost of the Fire Brigades’ Act, and felt that they were subject to double-taxation due to their direct
contribution to the Brigades, and indirect contribution to Brigades via payments to the Victorian Treasury (*Bendigo Advertiser* 1890a). At the same time, the Brigades were suspicious of the idea of a loan due to the loss of autonomy resulting from a central debt, and the associated risk of equipment coming under the control of the Board or even being seized in the event of default. Marshall (1930 p.23) summarised the concerns of Brigades and councillors as belief that the loan would see ‘local control [of Brigades and fire management decisions] done away with’. The Country Board disagreed with these criticisms through a ‘lengthy’ circular to the Municipalities which had ‘no effect, as the criticisms went on as bitterly as ever’ (Marshall 1930, p.25, p.76).

Both Brigades and Municipalities renewed their efforts to ‘smash’ the Country Board but, by this stage, there was little that either could have done to reverse the centralising process (*Bendigo Advertiser* 1890a). They could threaten delistment, but to do so would be to reject the material advantages of Board membership (new accommodation and equipment; training etc.,) and the highly-valued protections conferred by the Act. Marshall’s (1930) willingness to seriously consider Brigade concerns was a benefit, but had this conciliatory attitude not been adopted it is not clear what the Brigades could have done to continue their existence outside of the Country Board at this stage. Further, there were limits to Marshall’s (1930) patience, evidenced by his threat to remove any volunteer found to be under-skilled for the role and to replace them with competent personnel. The implication was clear: Brigade personnel were replaceable, and the Brigades as an organisation would survive any delistments by simply raising a new fire-fighting force.

Some unaffiliated brigades emerged due to dissatisfaction with the Country Board. At Wangaratta, for example, after ‘landowners shared their experiences of misdirected energy and waste of time through want of proper organisation and discipline’ in dealing with the Board an unaffiliated brigade was formed (Murray & White 1995, p.73). However, the autonomy gained did not adequately replace the loss of the Board’s financial support or the legal rights and protections granted to Brigades, and it appears that unaffiliated brigades disappeared in short order (Pyne 2015). This, again, reflected the benefits of affiliation with the Country Board. Outside of Marshall’s machinations, Brigades’ received coveted legal and financial protections, and powers not available to brigades operating outside of the Act (*Fire Brigades’ Act 1890* (Vic) (s.38 ss.1-7); Vic 1885). Given the level of unrest that occurred prior to Marshall’s goodwill trips it can be said that these were not enough to ‘beard’ the Brigades, but these features certainly helped mitigate Brigade unrest. Further, the Brigades had become reliant on the goodwill of the Board, and had been convinced (in no small measure by Marshall) of the benefits of a central authority. The powers provided to the Country Board under the Fire Brigades’ Acts (Vic) gave the Board the control of the growth of the movement: Section 31 of the *Fire Brigades’ Act 1890* (Vic) granted the Chief Officer the power to approve, or reject, Brigade registrations and, perhaps most importantly for Brigade discipline, to ‘cancel the enrolment and registration of any fire brigade’.
Alternatively, the powers, protections and privileges granted to the Brigades were entirely at the discretion of the Country Board, and could be revoked at any time the Board deemed it appropriate thus created an almost evolutionary pressure for loyalty to the centre among Country Brigades.

The Board’s powers to approve or reject the registration of a local Brigade, likewise, had an important effect on Victoria’s fire management system. The Country Board was liable to reject applications from settlements considered too small to support a Brigade and/or those considered ill-suited to the Board’s fire management abilities (Murray & White 1995 p.70). There were good reasons for this, such as the Board’s belief that Country Brigades were not well suited to ‘combat the bushfires that burned around towns’ (Murray & White 1995, p.70). The implications of the Board’s control over Brigade registrations underlined how far the locus of power in country fire management had shifted under the 1890 Act. From 1890 onwards a central body had the power and authority to define what was, and what was not, a Brigade. If the state (qua the Country Board) rejected an application the gap in local fire protection could be, and was, filled by emergent actors operating outside the law in the same way that the unaffiliated brigades had survived outside of the 1890 Act. In ‘bush’ areas such informal fire-fighting groups emerged and constituted a ‘second country fire brigade movement’ in Victoria, eventually adopting the moniker of the bush-fire brigades and, subsequently, the Bush Fire Brigades (Murray & White 1995, p.71, p.83).

3.4 The Pre-Bush Fire Brigades and the Forests Commission c. 1900-1933

The Country Fire Brigades’ Board’s refusal to sanction Brigades in the ‘bush’ areas led residents to form the kinds of emergent, informal fire-fighting groups prevalent in Victoria up to the 1870s. The fire-fighters and fire-fighting groups operated autonomously and predictably struggled with a lack of resources and poor leadership, coordination and organisation. Despite their shortcomings, the emergence of these bush fire brigades helped resolve a major gap in Victoria’s fire management system, by providing a much-needed firefighting service in Victoria’s ‘bush’ and forested areas. As shall be seen these initially emergent, informal organisations followed a similar developmental pathway as the Country Brigades and, despite the brigades’ and Brigades’ resistance, were progressively formalised and centralised through the Bush Fire Brigades Acts 1933 and 1939 (Vic), and the CFA Acts 1944 and 1946 (Vic).

13 These were not ‘Bush Fire Brigades’ as they were not subject to any Act of Parliament at this stage.
The bush fire brigade movement resulted from both of the failure of the state to provide for a fire-fighting service for ‘bush’ areas, and serious deficiencies in Victorian forest management, including forest fire management. These had been recognised since the late 19th century. Berthold Ribbentrop\(^\text{14}\) criticised the “extraordinarily backward state” of Victorian forest management, and suggested that fire management in forests ‘had never even been attempted’ (Pyne 2015, p.280). Ribbentrop was justified in this view. Victoria did not have a dedicated Forests Commission until October 1919 despite the major forest fires in the 19th and early 20th centuries, the recommendations of an 1896-1901 Royal Commission on [Victoria’s] State Forests and Timber Reserves, and the *Forests Acts 1907, 1910, and 1918 (Vic)*. Some provisions were made to reduce the risk of forest fire, such as restrictions on lighting fires in or near forests during bushfire season, but official responsibility for enforcing such restrictions (and for managing Victoria’s forests generally) had been ‘transferred from one control to another’ so often that the state’s forests ‘became in a way nobody’s care’ (*Forests Act 1907 (Vic)* (s.34-35); FCV 1921a p.7). Even the newly-constituted Forests Commission struggled to enforce the Forests Acts due to fragmented authority, under-resourcing, and the lack of an effective forest fire management organisation. The activities of graziers in illegal fire-lighting is a good example of these three factors interacting to produce major fire-related losses. Graziers were subject to the authority of the not-entirely fire-minded Lands Department rather than the Forests Commission, and willingly flaunted restrictions on fire lighting. These illegal actions capitalised on good fire weather to create larger areas of new pasture, or rejuvenate larger areas for grazing, confident that they would not be caught by the disinterested Lands Department and under-resourced Forests Commission (FCV 1921a; Stretton 1939). Prior to the Forests Commission’s creation the State forests suffered ‘enormous losses’, often linked to grazing, logging and mining (COAG 2004; FCV 1921a, p.8, p.14). In the first year of the Forests Commission’s existence it was considered ‘fortunate and as reflecting credit on the efforts of the staff” that only 485km\(^2\) of Victoria’s forests burnt, despite the ‘exceptionally dry’ weather (FCV 1921a p.13-14). These outcomes were achieved through the Forests Commission’s zealous prosecution of law-breakers, though this created a hostile attitude towards the Forests Commission among the community. Thus the Forests Commission’s ability to utilise community good will to reduce careless or malicious use of fire diminished because of the Commission’s perceived harsh and inflexible approach to economically-minded fire-lighting. Together with the persistent under-resourcing of the Forests Commission it became all-but impossible to ‘remove the torch’ from illegal fire-lighters, and thus to reduce fire-related losses in Victoria’s forests (FCV 1921a; Pyne 2015, p.206).

Graziers’ and loggers’ hostility to the Forests Commission reflected their ‘battles’ over the proper use of Victoria’s forests and surrounds (FCV 1921a p.8). The Forests Commission’s attempts to protect Victoria’s forests from fire and development were undermined by their limited authority over graziers, and being generally despised by other interests who, the Forests Commission believed, regarded forests (and Forest Officers) as an ‘enemy’ (FCV

\(^{14}\text{Inspector-General of the Indian Forest Service.}\)
Rather than recognising the need for careful fire management in Victoria’s fire-prone areas, the Forests Commission’s activities were regarded by other stakeholders as ‘sheer perversity’ (FCV 1921a p.8). Prevailing wisdom suggested the Commission sought to “lock up” large tracts of [forest] to ‘prevent […] industrious and deserving citizens from obtaining a livelihood’ (FCV 1921a p.8). In response, some locals maliciously used fire to advance their interests while others, concerned by the risk of prosecution or just unaware of the ‘proper’ use of fire as a fuel reduction technique were ‘careless’ with their ignitions. Examples of such action include economically-motivated fire-lighting, lighting and leaving an unsanctioned fuel-reduction burn to reduce the risk of prosecution, or being careless in extinguishing fires used for cooking.

These issues came to a head during the 1926 Black Sunday bushfire season, when the Forests Commission (FCV 1926a p.9) estimated that over a third (37.5 per cent) of destructive forest fires were a result of ‘grazing interests’; 15 per cent resulted from fires lit by ‘settlers’; and another 9 per cent were ‘vindictively lit’ by other stakeholders. These sources of fire would continue to be prevalent for the rest of the 1920s and 1930s (see FCV 1921a-1940a). Such acts of ‘criminal folly’ were roundly condemned by the Forests Commission, yet historically this had not prevented:

many people [having] no compunction in setting the forest ablaze, and for some small immediate gain in the shape of grazing or clearing can watch without a pang the destruction in flame and smoke of the timber that might provide their sons and their sons’ sons’ with employment and wealth.

FCV (1921a p.14)

Pyne (2014 loc.6163) would later liken the Forest Commission’s circumstances to ‘barons faced with insurrection around their lands’. In 1921 the Forests Commission proposed a radical solution to this ‘insurrection’: its own fire management army, conscripted from the community (FCV 1921a). The state government ignored these appeals, with the Forests Commission (FCV 1921a, p. p.14, 18; 1927a) suggesting that the apparent failure to recognise the ‘urgent necessity’ of improving the Forests Commission’s powers and resources was a result of the lobbying power of grazing and logging interests. There is some merit to the Commission’s concerns: The Argus (1926d), Stretton (1939) and Collins (2009) claimed senior Country Party members – including Premier Dunstan and Deputy Premier Lind – did not condemn illegal fire-lighting by their constituents in the hope of graziers, loggers and miners support in future elections. Without additional legal powers and resources the Forests Commission (FCV 1921a, p.14) struggled to perform its ‘[v]aluable protective work’, in managing fuels and creating fire-breaks. Yet the Forests Commission recognised
that these activities were secondary to the ‘one remedy’ that could be ‘truly effective’ in reducing the risk of bush and forest fires in Victoria: the ‘growth of such a body of sound public opinion that wanton or grossly careless fire-raising […] become a thing of the past’ (FCV 1921a, p.14).

Forests Commission’s task was not a simple one. The underlying causes of most ‘careless fire-raising’ in bush and forest areas were not issues that could be addressed through education or warnings of risks. Graziers, loggers and miners, among other stakeholders, used fire illegally ‘by design’ to achieve their economic goals (Weekly Times 1926b; Stretton 1946). Despite the Forests Commission understanding this aspect of illegal fire-lighting, the Commission could not, or at least did not, factor the economic goals of graziers, loggers or miners into its reckoning. Instead, the problem was diagnosed as one of lack of ‘responsibility’ in the use of fire by such stakeholders, with graziers in particular criticised for their use of fire as a land rejuvenation tool to facilitate the ‘fattening of their beasts for profit’, thereby illegitimating the economic goals of the graziers (Weekly Times 1926b).

Given the pre-Second World War economic difficulties of Victoria’s agricultural producers (see Ritchie 1945; Whitford & Boadle 2008; 2009) the deliberate use of fire to eke out a living from the land might be considered a rational goal that would not be easily changed through nebulous appeals to ‘public opinion’, or efforts to change fire-lighters attitudes without addressing the underlying economic problems.

Public opinion did turn against careless or malicious fire-lighting after the ‘lamentable loss’ of life and property incurred by the 1926 Black Sunday bushfires (The Argus 1926d; FCV 1926a, p.3; FCV 1927b). This turn, however, did not result in Victoria’s policymakers giving ‘immediate attention to the recommendations’ made by the Bushfire Relief Sub-Committee, including the creation of state-supported bush-fire brigades to police bush and forest areas and provision of bushfire shelters for threatened populations (The Argus 1926d). Nor did it reduce the problem of economically-motivated fire-lighting (see FCV 1926a-1939a). The main policy response to these fires, the revised Forests Act 1927 (Vic) (s.4-5), instead extended the forested area permitted for economic exploitation in Victoria relative to the 1918 and 1927 Acts, and thus exposed yet-more of Victoria’s forest to the risk of careless or malicious fire. The result was a failure to see the Forests Commission ‘adequately strengthened’ to facilitate a ‘safe forestry policy in Victoria’ (The Argus 1926d; FCV 1927b, p.4). The Forests Commission considered these outcomes, particularly the failure to transform the Sub-Committee’s recommendations into state policy, evidence of the ‘strong’ political position of country ‘interests’ over policymaking (FCV 1926a, p.3). As a result, the Forests Commission pursued a solution to its problems that was workable without supporting legislation: closer association with the informal bush fire brigades.
After the 1926 Black Sunday bushfires the Forests Commission, Victorian Police Department and Country Fire Brigades’ Board formed a ‘delegation’ to tour fire-affected areas with the goal of fostering links with existing bush-fire brigades, and fostering new brigades (FCV 1927a, p.10; Pyne 2014). The delegation raised 31 new brigades in 10 days and, in total, established or engaged 106 brigades with the number ‘still increasing’ when the Forest Commission’s *Annual Report* was published in June 1927 (FCV 1927a, p.10).

The bush brigades were analogous to the pre-1890 country brigades, in that they were ‘ruggedly independent’, and operated with the ‘minimum of formality’ and resources due to their lack of supporting legislation (Murray & White 1995, p.71, p.95). ‘Few’ had dedicated fire stations, and as such ‘usually’ stored what equipment they had ‘on their farms’ (Murray & White 1995, p.95). That they were an informal, non-state body of local actors held in high esteem by community members, and (generally) skilled in fire management, however, allowed them to exert a significant effect on local ‘public opinion’ regarding careless or malicious burning. *Weekly Times* (1927a) identified the brigades as a driver of ‘fear of the law’ among potential fire-lighters, and of a view that illegal users of fire were ‘not playing the game [and] not entitled to any sympathy’. After the 1939 Black Friday bushfires Stretton (1939 p.27) would agree that the Bush Fire Brigades had produced a change in public opinion regarding illegal fire-lighting by showing ‘no sympathy […] towards the person who illegally causes fire’. This role was facilitated by the ‘care […] taken in selecting the right men’ for service and emphasis on their having the ‘confidence of the members of the units and also of the landholders’ so as to produce ‘cohesion’, ‘efficiency’ for brigades, and ‘greater [community] enthusiasm’ for fire management (*Weekly Times* 1927a). As with the pre-1890 brigades these talents were generally found among military or ex-military personnel, thus imbuing the bush brigades with a fondness for military-style drill, discipline and methods of organising (Murray & White 1995; *Weekly Times* 1927a). The bush brigades’ unofficial relationship with the Forests Commission after Black Sunday provided them with expert advice on both fire management and organisational matters so as to produce an effective, though informal, fire management organisation in bush and forest areas.

After their association with the Forests Commission the bush fire brigades quickly followed the developmental pathway taken by the Country Brigades. At a September 1928 meeting of bush brigades, presided over by the President of the Country Fire Brigades’ Board, it was agreed that the bush brigades would form a central council and associate as the Country Bush Fire Brigades’ Association (*The Age* 1928a). Concerns that the Association would become ‘dominated by metropolitan influences’, particularly the ‘Collins-Street Farmer’ were calmed by the Central Council being headed by a representative of the Forests Commission, and comprised of:

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15 Captain Robert Alfred Dunbar Sinclair.
delegates from each of the seven districts into which the State has been divided, together with representatives of the Melbourne Volunteer Bush Fire Brigade, Forests Commission, Police Department, Lands Department, Railway Department, State Rivers and Water Supply Commission, Melbourne and Metropolitan Board of Works, Meteorological Bureau, Country Fire Brigades Board, and Pastoralists Association.

(The Age 1928a; Forests Commission (FCV 1929a, p.12).

Together these stakeholders sought to ‘secure the necessary powers for the effective prevention and extinction of bushfires, to organise and co-ordinate the work of bush brigades throughout the state, and to standardise methods of bushfire control and fire-fighting equipment’ (FCV 1929a, p.12). It was hoped that a Bush Fire Brigades’ Bill would allow for the ‘organisation, control, and extension’ of the bushfire brigades’ by creating and consolidating forest and bushfire management (FCV 1929a, p.12). Such an Act had been suggested by the Association, and backed by the Forests Commission, due to the success of the brigade movement. The support required by the growing bush brigades’ movement was coming to reach the limits of the carrying capacity of the Forests Commission, which was providing ‘all the secretarial and a great deal of the organisation [sic] work of the Bush Fire Brigades’ Association’ as the movement grew to over 10,000 members (FCV 1931a; 1941a, p.11). Despite these concerns the bush fire brigades operated without a relevant Act of Parliament until 1933, due both to a perception of the bush brigades as a small-time organisation run ‘as a small office in the Forests Commission’, and/or the blocking tactics and political power of country interests (Murray & White 1995, p.93). These sources of friction were not alleviated until the deaths of 9 people and ‘big losses in the timber industry’ during the 1931/1932 bushfire season, occurring so soon after the losses of the 1926 Black Sunday bushfires, created public and political pressure to improve bush and forest fire management (AEM n.d. c.2012a; Aminzade 1992; COAG 2004; Murray & White 1995, p.93; Kingdon 2013). In historical sociological and policymaking terms, these three events – the 1926 Black Sunday bushfires, the development of the bush fire brigade movement and the 1931/1932 bushfires – constituted a fast-paced chain of linked events that softened opposition and built up support for policy change. The result was a new push for a Bush Fire Brigades Act, which came to fruition in 1933.

3.5 The 1933-1939 Bush Fire Brigades Acts
The story of the transformation of the autonomous, informal bush brigades into centrally-administered, formal Bush Brigades resembles the earlier one of the Country Brigades. Both were motivated by recognition that informal, emergent and autonomous approaches were no longer suitable for the size of the problem faced, and that efficiency and effectiveness gains could be made by central actors capturing and controlling local energies. It might also be said that both Acts came several years later than they should due to political opposition, which was only alleviated by a fast-paced chain of linked events. By the time the Bush Fire Brigades’ Act was introduced the movement had grown to 270 brigades with over 10,000 members (FCV 1933a, p.13). To ‘better coordinate’ a movement of this size, and ensure that the community continued to receive ‘great value’ from its contribution to the brigades, it was necessary to bring the movement under the state’s control through the Bush Fire Brigades’ Act 1933 (Vic) (FCV 1930a, p.8; 1931a; Murray & White 1995, p.93).

Organisationally and operationally the Bush Fire Brigades’ Act 1933 (Vic) would resemble the Fire Brigades Act 1890 (Vic), in that it helped support and sustain the movement by defining statutory and financial protections for Brigades, though these were only activated during fires and thus limited the Brigades’ ability to perform essential pre-fire prevention and mitigation activities, with this later addressed through the Bush Fire Brigades’ Act 1939 (Vic). The 1933 Act would also see the state take an increased role in controlling and defining the brigades’ responsibilities, and in organising and controlling brigade functions. This included requirements for volunteer training and brigades’ registration with the central Bush Fire Brigades’ Committee, with the Committee holding authority over the registration and cancellation of Bush Brigades’ association with the Committee, and appointing or approving appointments of senior Brigade personnel (Bush Fire Brigades’ Act 1933 (Vic) (s.8-9)). The Act saw Victoria’s bush areas divided into separate districts so as to allow for individual plans to be developed and/or approved by the Committee, and facilitate state-wide coordination of fire management (Bush Fire Brigades’ Act 1933 (Vic) (s.6)).

The major difference between the Fire Brigades’ Act 1890 (Vic) and the Bush Fire Brigades’ Act 1933 (Vic) (s.14) was that the latter did not require the state financially support the Brigades. Instead, Bush Brigades’ and the central Committee were to ‘receive donations and expend the same for the benefit of bush fire brigades or as approved by the Minister’, or make other ‘arrangements’ for funding (Bush Fire Brigades’ Act 1933 (Vic) (s.14); FCV 1930a, p.8; Murray & White, 1995, p.93). Murray and White (1995 p.90) indicated that the Bush Fire Brigades’ Act 1933 (Vic) was intended to see Bush Brigades financed by, and accountable to, ‘government and municipal’ actors and insurance firms in the same way that the Fire Brigades’ Act 1890 (Vic) provided for the Country Brigades. The Fire Underwriters Association refused to contribute to the Brigades and (per the lack of provision in the 1933 Act) the promise of state and municipal sources of funding was quietly withdrawn (Murray & White 1995). Therefore the Bush Brigades’ ‘only funding, apart from the help of the Forests Commission’ was donations (Murray & White 1995 p.90). The assistance offered by the
Forests Commission was, due to the Commission’s circumstances, limited. The Forests Commission could only support Brigades ‘situated in the vicinity of State or Crown lands and who give an undertaking to assist in suppression of fires in such [lands]’, with Stretton (1939 p.27) estimating that this amounted to ‘less than £1. 10s per week’ or £700 over ten years’. These sums supplemented by donations from the insurance companies (‘£100 per year’), but were insufficient to support an efficient and effective fire-fighting service (Stretton 1939 p.27). As a result, Bush Brigades depended not so much on the state or private sector as whatever monies they could gather through ‘annual brigade subscriptions’ and local community donations (Murray & White 1995, p.90; Stretton 1939, p.27). The results of the Act were mixed. The Brigades had gained insurance and legal protections and centralised standards for training without being as accountable to the state as Country Brigades. At the same time, they ceded a good deal of their decision-making powers for little return in the way of resources and equipment, or legislative powers to act to prevent or mitigate bushfires. A comparison of the Fire Brigades’ Act 1890 (Vic) (s.27, s.39) with the Bush Fire Brigades’ Act 1933 (Vic) (s.7 ss.4) sees the former committed to providing formal minutes of proceedings to the Chairman, and grants the Governor in Council the power to make regulations for the Brigades: the 1933 Act, meanwhile, provided that Bush Brigades’ ‘Committee shall regulate its own proceedings’.

Together, the lack of financial accountability and Brigade control of the central Committee allowed ‘rural communities [to realise] the advantages of organised fire-fighting and of being prepared beforehand for any eventualities’ (FCV 1935 p.11). As a result the Bush Fire Brigades’ Act 1933 (Vic) did not produce the kind of unrest that followed the Fire Brigades’ Act 1890 (Vic). The Brigades’ control of their own finances meant state intrusions into Brigade affairs were limited, with the new central Committee was made up predominantly of those sympathetic to the Brigades. Of the seven members of the Bush Fire Brigades’ Committee, three were from the Forests Commission; one from the Country Fire Brigades’ Board; and three from the Bush Brigades (Bush Fire Brigades’ Act 1933 (Vic) (s.6)). As the Forests Commission had been vital to the early flourishing of the brigades, and thus their presence on the Committee was welcomed.

Paradoxically, these freedoms meant that Bush Brigades tended to be more short-lived as organisations than their Country Brigade cousins. Murray and White (1995) and Pyne (2015 p.341) both found that the 1930s saw bush brigades/Brigades ‘flourish[ing] immediately after a bad burn’ before ‘disappearing’. Pyne (2015 p.341) likened the Bush Brigade movement after the 1933 Act to ‘adding marbles to a bag [rather] than assembling tiles into a mosaic’. These problems stemmed from the state’s limited support for the movement (outside of the Forests Commission) either operationally, financially or organisationally. The lack of pre-fire powers was an obvious hindrance to Brigade functioning, as was the lack of state financial provision for Brigades. This meant Brigades were less accountable to the state, with this demonstrated through the lack of provisions for inspection of Brigades under the Act. An
unintended consequence of this was that Bush Brigades were prone to withering or disappearing completely, or Brigade volunteers becoming deficient in their training and thus discipline and devotion to service. Despite these failings it is important to recognise that the ‘ruggedly independent’ bush fire brigades had been centralised and transformed into Bush Fire Brigades, with this a key step on their developmental pathway (Murray & White 1995, p.71). The deficiencies in the 1933 Act, such as the lack of pre-fire powers for Brigades and the limited central oversight of individual Brigades were addressed through later legislation. For now, the Bush Fire Brigades Act 1933 (Vic) (s.8) created pressures for any fire-fighting body in bush or forest areas to ‘register as a [state] Bush Fire Brigade’, with the power to grant such a request, as well as to ‘amalgamate […] or cancel the registration’ of a Brigade now in the hands of a central Committee. This Committee was made up of interests sympathetic and/or friendly to the Brigades, but appointments to the Committee were dependent on the approval of the Governor in Council and, in turn, appointments of senior Brigade personnel dependent on the approval of the Committee (Bush Fire Brigades’ Act 1933 (Vic) (s.9). Thus the 1933 Act was establishing a hierarchical chain of command over Brigade functions that had the state at the top. There remained a tense split of responsibility for non-metropolitan fires between the Bush and Country Brigades and their central executives, Forests Commission, Victoria Police, Lands Department and the State Electricity Commission, among others, but a step had been taken towards filling a major gap in Victoria’s fire management strategy.

The success in transforming the ruggedly independent bushfire brigades into state-run Brigades provided Victoria with a valuable bush and forest fire-fighting service, but did little to address the problems caused by the divided responsibility for fire prevention and mitigation. The Bush Fire Brigades’ Act 1933 (Vic) (s.10) meant Brigades could only act after a fire had started, and were thus not empowered to ‘abate any [potential] fire hazard’ until the Bush Fire Brigades’ Act 1939 (Vic) (s.4-5). These restrictions, together with the fragmented authority for fire management in forest and adjacent lands, meant that the Brigades and Victoria generally was ‘incapable of organised pre-suppression’, and ‘incapable of suppressing large fires’ (Pyne 2015, p.341). The Brigades showed a willingness to operate ‘outside the restricted areas defined by their statute’ during major fire events, such as the 1939 Black Friday bushfires, but the lack of general powers or plans for fire management, and the Brigades’ lack of pre-fire powers, were obvious barriers to good fire management (Stretton 1939 p.21). The result was a series of fire ‘debacles’, which drew attention to the need to reformulate fire management in Victoria, with the 1939 Black Friday bushfires and subsequent Royal Commission creating the momentum for policy change in Victoria (Pyne 2015, p.341).

3.6 Black Friday 1939 and the Royal Commission
The 1939 Black Friday bushfires resulted in 71 deaths, destroyed 650 houses and 69 timber mills, and burnt at least 15,200km$^2$ (COAG 2004). Stretton’s (1939 p5) Report acknowledged the effects of a ‘long drought [and] a severe hot, dry summer season’ on fire severity, but identified the cause of the fires as the ‘hand of man’, and linked their destructiveness because of deficiencies in Victorian bushfire management. The report was described as a ‘striking denunciation [of] official disregard of responsibilities’ for fire management, but would have a limited immediate effect on Victorian bushfire policy (Collins 2009; Sydney Morning Herald 1944a). This can be linked again to friction in the politics stream caused by the lobbying strength of country interests, and country links to senior Victorian politicians (including State Premier Dunstan and Deputy Premier Lind; Collins 2009; Kingdon 2013). Stretton’s (1939) criticism noted failures in fire prevention and mitigation, particularly the reduction and management of fuel-loads in fire-prone areas, and in the principles and structures guiding Victoria’s bushfire management strategy. For Stretton (1939 p.13, p.32) the volunteers made a ‘very great’ contribution to the fire-fighting effort during Black Friday but, without a ‘general plan’ for pre-fire prevention and mitigation and for fire-fighting produced by the consolidation of fire management responsibility under a State Fire Authority, remained unable to adequately reduce the risk of fire in Victoria. This recommendation for yet-more centralisation of Victoria’s fire services continued the trend established under the Fire and Bush Fire Brigade Acts of previous decades, and with these facilitating the militarisation of Victorian fire management after the Second World War.

### 3.6.1 Fire Prevention and Mitigation: Fuel Management

Stretton’s (1939) criticisms of the community and state’s failures in fuel management noted a long-running deficiency in both’s fulfilling their legally-required hazard-reduction activities around settlements. The prevailing legislation required ‘protective burning and fuel clearing […] around all sawmills to the extent of not less than two chains’, or around 40 metres (Stretton 1939, p.18. Such burning and clearing was rarely performed. Indeed, Stretton (1939 p.18) reported having to remind the state and private sectors of the specifics of these requirements, and described their ignorance as ‘absurd’. Stretton’s (1939 p.18, p.34) also criticised the ‘unsuitability’ of the area to be cleared, and advocated an increase to ‘at least five chains beyond the outer-most buildings of the mill and mill-settlement’. The need for a wider area of managed fuels around settlements was likely influenced by Stretton’s (1939 p.5) finding of community ‘unpreparedness’, ‘apathy’, ‘ignorance’ in fire management, and carelessness or maliciousness in fire-lighting. These failings, coupled with the sharp growth in people and property situated in fire-prone locations after the Forests Act 1918 (Vic) without appropriate public safety infrastructure (e.g., dugout bushfire shelters) transformed the dangerous meteorological conditions of the 1938/1939 bushfire season into a major fire disaster.
The state’s failures to manage fuel-loads on public and Crown lands resulted from the Forests Commission’s struggles to perform its statutory duties amid limited resources and public hostility. After Black Friday, the Forests Commission lamented that it had ‘not had the requisite staff nor finance to prosecute an intensive scheme of fire protection’, and could only ‘undertake protection measures in the more accessible and valuable stands, and in sections from which fires might be expected to threaten areas of adjoining reserved forest’ (FCV 1939a, p.5). Considering the high number of fires lit annually by graziers and other landholders (about 54 per cent of fires during the 1938/1939 bushfire season) the Forests Commission targeted fuel reduction and fire detection efforts in areas that the Lands Department had leased to graziers. The Forests Commission’s activities here were undermined by the shared authority for issuing land-use permits between the Lands Department and the Forests Commission. The Forests Commission recognised that this ‘divided control’ was a ‘serious weakness’ in their fire management efforts after Black Friday, as ‘[t]he majority of fires which encroach[ed] on State forest originate[d] from adjoining areas’ (FCV 1939a, p.5). These fires were historically lit to provide ‘something green’ for livestock, with graziers exploiting the days where meteorological conditions were conducive to extensive fires (The Argus 1851a; Rodger 1961). Without full knowledge of the lands under pasture near Forest Commission-administered lands the Commission’s Officers could not properly target their fire management activities to reduce the risk to people and property from such fires. At the same time, though, the Forests Officer’s enthusiasm for upholding certain aspects of their role had been undermined by the ‘unreasonable and inflexible’ terms laid down by the Forests Act 1928 (s.68) (Vic) that were ‘so notoriously unpopular’ that neither the community nor the state held any ‘special zeal for […] upholding the law’ (Stretton 1939, p.12).

The terms of the Forests Act 1928 (Vic) meant that there were few community or state mechanisms to ‘check an intending law-breaker’, leading to high incidence of carelessly or maliciously lit fires (Stretton 1939, p.12). Of course, the Forests Commission’s limited resources played a role in these fires spreading and impacting forested and ‘bush’ areas, but the efforts (or otherwise) of Forests Officers and the community must also be acknowledged as contributing factors in the lawless use of fire. The terms of the Forests Act 1928 (Vic) meant that ‘country-bred’ people, whether Forests Officers or other stakeholders, felt aggrieved by the Forests Commission’s ‘ill-considered’ and zealous use of its statutory powers to refuse permission to burn when ‘experienced people felt it safe’ (Stretton 1939, p.12). These refusals could be based on purely statutory grounds, as the Forests Act (Vic) restricted fires lit between November and March, but also due to a lack of Forest Officers to monitor fires, or a general belief that the fire would constitute too great a risk of escape. As a result, locals (and some Forest Officers) became alienated from the Forests Commission, leading to unilateral decisions to light fires either to reduce local fuels or, more maliciously, for economic gain. The Forests Commission met such outbreaks through stern punishment of identified fire-lighters and ever-greater restrictions on fire-lighting, which paradoxically both
increased the careless or malicious use of fire and decreased civic engagement in fire management in Victoria.

The threat of prosecution led to a rise in fires left ‘untended’ by fire-lighters to reduce their risk of being linked to and prosecuted for the fires, creating the risk of a fire spreading and threatening a settlement (Stretton 1939, p.12). The chances of such fires affecting settlements were increased by residents’ reliance on and/or fear of the Forests Commission’s rigorous prosecution of fire-lighters. Stretton (1939 p.13) considered that residents ‘allow[ed]’ their settlements ‘to be encroached upon by scrub’ due to their ‘apathy’ regarding fire management, but this criticism is perhaps severe. Some residents expected the Forests Commission would act as the ‘fire warden for the whole state’, and so based their own fire management activities on the observed actions of Forests Officers (FCV 1939a, p.60). Where Forests Officers were locally active (some) residents engaged in fire prevention and mitigation, and where Forests Officers were inactive residents assumed that the local risk was low, and so be less active in fire management. This was a mistaken assumption, given the deficiencies in the Forests Commission’s ‘authority, staff [and] financial resources’ to fulfil its fire warden role that was accentuated by the public’s lack of understanding of the law (FCV 1939a, p.6). The lack of self-reliance suggested here indicates that the Forests Commission’s community training and education efforts, including the promising ‘Bush Fire Prevention’ weeks, were not adequately motivating fire-threatened populations to fulfil their assigned role in fire management (FCV 1921a; 1930a). To be sure the public’s attitude can be thought of as apathy, but could equally be explained as a lack of understanding of the local fire risk or as a failure to balance fire management and community goals. These former two suggestions implied that the failure be shared between the community and the Forests Commission. A similar shared failure that again ties in to public inaction can be seen in the public’s misunderstanding of the terms of the Forests Act vis-à-vis fuel reduction burns during the November-March ‘Prohibited Period’ (Stretton 1939, p.23).

Where individuals could not be ‘convinced’ or ‘cajouled’ [sic] to follow the law, Stretton (1939 p.7) suggested ‘stern and swift punishments’. These included the ‘deprivation of [burning, grazing, or logging] rights’ for noted fire-lighters, as well as more traditional sanctions such as ‘fines or imprisonment’ (Stretton 1939, p.7). In areas of ‘extreme fire danger’ Stretton (1939 p.34) proposed that the ‘future policy of the Forests Commission should be […] the non-admittance of new mills to such dangerous areas, and to the future removal of such mills as are now in those areas’ (Stretton 1939, p.34). At the same time, Stretton (1939 p.20) sought to enhance the Forests Commission with greater powers to decide whether to ‘encourage, curtail, or prevent forest settlement’ in certain areas to reduce Victoria’s growing vulnerability to fire. Restricting future development in fire-prone areas, or depriving existing concerns of forest-use rights, was probably not economically feasible for the Forests Commission due to the Commission’s reliance on royalty payments for forest-based products (FCV 1939a). In 1939, such royalties and other payments by forest-based
producers comprised over 85 per cent of the Commission’s total income (FCV 1939a). Thus, if the Forests Commission had restricted the private sector’s access to Victoria’s forests the Commission could potentially suffer a major financial injury. Rather than adopting a strictly punitive solution to the presence of assets in fire-prone areas the Forests Commission continued to rely ‘upon the voluntary co-operation’ of all stakeholders, and to be wary of laws which were ‘not acceptable to many [as these were] made to be broken’ (The Age 1926c; FCV 1928a; *Forests Act 1918* (Vic) (s.39); Stretton 1939, p.7, p.12).

It can be said, then, that the difficulties in Victorian bushfire management could not easily be resolved through statutes. A workable solution depended, as much of the Forests Commission’s previous community-facing activities had, on promoting ‘education, goodwill [between stakeholders] and the expenditure of money and patient labour’ (FCV 1921a, p.14). Stretton (1939) recognised the importance of such social approaches to fire management, and recommended these were supported by improvements to the Forests Commission’s legislative and financial supports. The Bush Fire Brigades were identified as a source of relief for both issues as the existence of a Brigade led to a ‘lessening not only of the destructive spread of bushfires, but also of outbreaks’ due to the Brigades’ showing ‘no sympathy […] towards the person who illegally causes fires’ (Stretton 1939, p.27). The presence of Brigades meant ‘some check [exists] upon the actions of people who might be of mind to burn illegally’, and provided a source of local knowledge and expertise that guided local fire management activities (Stretton 1939, p.27). The Bush Brigades were, however, limited in these activities since they lacked a clear mandate for a pre-fire role, which Stretton (1939 p.27) considered an unnecessary restriction on the ‘most valuable fire-fighting forces in the state’ (see *Bush Fire Brigades’ Acts 1933 and 1939* (Vic)). The Bush Brigades were provided with pre-fire powers in the *Bush Fire Brigades’ Act 1939* (Vic), though Stretton (1939 p.34) had suggested a wider extension of the Brigades’ powers and resources by empowering them, and the Forests Commission, to offer ‘direct supervision’ to locals with costs incurred to be ‘added to the royalty rate payable by […] millers’ (Stretton, 1939 p.34).

Increased collaboration between state-agents and the community was necessary because neither could fulfil Stretton’s (1939) recommendation that the existing (and rarely-performed) fuel-clearing around settlements should be vastly improved. Stretton (1939) recommended that the area cleared around settlements be increased from 40 metres to 90 metres. The need for such an increase reflected the poor state of fire management in Victoria, and wider socio-economic, demographic, cultural, and political factors. These latter factors had combined to increase the vulnerability of people and property to bushfires, and thus required that the state, fire services and community share responsibility in resolving the risk. Despite this shared responsibility for the historic construction of risk, Stretton’s (1939 p.18, p.34) criticisms at times unduly focused on the community’s failings, such as criticisms of residents’ and millers’ allowing ‘houses and huts [to be] generally built in the vicinity of, or grouped about [or]
overshadowed [by] standing timber’, while ‘scrub grew against their walls’ (Bankoff 2012; Hewitt & Burton 1971; Sydney Morning Herald 1944a).

In light of Victoria’s growing vulnerability to fire Stretton (1939) recommended a fundamental revision of the legislative and organisational framework supporting the state’s fire services, most notably the creation of a State Fire Authority. Stretton (1939, p.21) proposed that this Authority should hold wide-ranging powers, including ‘defining a general policy of prevention and suppression of bush fires and protection of life and property; of organising and recruiting local brigades; of maintaining discipline of local brigades and over local fire authorities, and [acting] independently, with or without such advice as it may care to take’. Stretton (1939) appreciated that this was a radical and bold policy suggestion but considered necessary due to the serious deficiencies in the state’s bushfire management plans and organisations that had been laid bare by Black Friday.

### 3.6.2 Bushfire Organisations and Organising for Bushfires

At the core of Stretton’s (1939) concerns regarding Victoria’s bushfire management strategy was the fragmented responsibility for fire management between state agencies, and deficiencies in inter-departmental collaboration and planning. Responsibility for non-metropolitan fire management was split between Victoria Police, the Bush and Country Brigades and their respective central bodies, and the Forests and State Electricity Commissions, among others. Each organisation had its ‘own executive, officers, and overhead expenses’ causing ‘duplication, rivalry, and friction […] were unavoidable’ (Portland Guardian 1945a; Murray & White 1995, p.99). Worse, responsibility and authority for fire prevention was split between these actors in such a way that each stakeholder’s statutory duties were ambiguous, leading to gaps in fire management and in-fighting over duties that hindered the Brigades’ fire-fighting abilities on Black Friday (see especially SEC (1944a; 1944b) and Stretton (1939; 1944)). Stretton (1939 p.17) considered that the Brigades ‘worked unsparingly’ and ‘expended their utmost effort to prevent the spread’ of the fires on Black Friday but, due to these wider deficiencies in the legislative and organisational framework supporting Victorian fire management, the Brigades were unable to prevent one of Victoria’s worst fire disasters.

That the Black Friday bushfires occurred in the context of a long drought and exceptionally hot summer meant Stretton (1939 p.27) was somewhat reserved in his criticisms of fire-fighting and organisational response on the day, particularly considering the ‘sincerity’ of the fire-fighters. Further, overall inter-organisational collaboration during the fires was good. Local Brigades threatened by fires received assistance from non-local Brigades, as well as
logistical and support services from a wide disaster-relevant organisational network organised by the Forests Commission (Daily News 1939a; FCV 1939a). The Forests Commission arranged for supplies to be transported to and evacuees from fire-grounds by the Railways Department, Tramways Board, Royal Automobile Club of Victoria and other public or private actors. Operationally, the Country and Metropolitan Brigades offered much-needed support for Bush Brigades. The Argus (1939e) credited the ‘arrival of a “flying squad”’ of Country Fire Brigades, led by the Board’s Chief Officer16, along with the ‘Lilydale motor-pump and detachments from Lilydale, Dandenong and Noble Park Brigades’ as having ‘saved the Warburton town’. The Age (1939c) also noted Metropolitan Fire Brigades supporting the fire-fighting effort at Warburton. There was, however, scope for improvement. The Lord Mayor of Melbourne17 hoped that legislative changes would allow for Metropolitan Brigades to offer ‘more effective help’ in the ‘event of [a future] emergency’ (The Advertiser 1939a). Stretton (1939 p.23) likewise considered methods to improve the quantity and quality of human capital available during fire emergencies, borrowing the Forests Commission’s (FCV 1921a) plan to grant the state powers to ‘call upon all able-bodied men within age limits […] within 5 miles of the fire’. These measures would help ensure Victoria’s fire and emergency services had the personnel necessary to respond to future emergencies, but would do little to address the serious flaws in the prevention and mitigation aspects of Victoria’s fire management strategy.

Stretton’s (1939 pp.13-14) Report considered that ‘much more could have been done to prevent [the fires’] spread and their attaining such destructive force and magnitude’ in the months (and years) preceding Black Friday. Stretton (1939 p.15) criticised the lack of central planning and organisation of fire and fuel management, with this linked to the marginal position of the Forests Commission in the Victorian state government. The Forests Commission’s limited resources meant that the Commission did not appoint a Chief Fire Officer until December 1937 (Stretton 1939). Thus, Stretton (1939 p.15) suggested that the ‘rule or practice’ for forest fire management pre-1937 was ‘particular to each district and district officer in charge’, leading to wide variance in local fire prevention and mitigation. The appointment of a Chief Fire Officer within the Forests Commissioner allowed for the beginning of a ‘general plan’ for forest fire management, including ‘to some extent most of the approved methods of prevention of outbreak and spread of fires’ (Stretton 1939, p.32). However, the Chief Officer’s late appointment – less than 13 months before the Black Friday bushfires – meant that little was done to implement such plans. Further, responsibility for fire prevention and mitigation was split between residents, the state and local levels of government including departments not directly concerned with fire,18 and the Bush and Country Brigades (Brennan 1979; Murray & White 1995; Stretton 1939; 1944). The result was a fragmented legislative framework that fostered a silo mentality among state departments, and saw ‘legal and technical’ loopholes cited as justification for inaction.

16 Alex McPherson.
17 A. W. Coles.
18 Such as the military, Lands Department, and State Electricity Commission.
Amid a ‘good deal of public buck-passing’, various state bodies (e.g., the Lands Department, Forests Commission and State Electricity Commission) argued that certain fire-prone lands were not under their jurisdiction, and so not their responsibility to manage, and/or that other ‘legal impediments’ prevented them from performing fuel and fire management activities (Brennan 1979, p.92; SEC 1944a; 1944b; Stretton 1939; 1944).

Stretton’s (1939 pp.20-21) planned ‘State Fire Authority’ could overcome these issues by centralising fire prevention and mitigation activities, but this would place much of the ‘burden of doing something’ onto the state, and socially and politically powerful actors. It would be the state’s responsibility to organise and administer fire management across public and private lands, without the benefits of legal and technical loopholes to avoid action, with members of the powerful grazing and logging lobbies likely to be negatively impacted by stricter fuel management requirements (Collins 2009; Stretton 1939). The ‘friction’ caused by these actors can best be seen in the Victorian state government’s initial reluctance to order a Royal Commission into the 1939 fires, and efforts to ignore the Commission’s Report. As Victoria’s Deputy Premier, Minister of Lands, Minister of Forests and a Gippsland farmer, Albert Lind’s affiliations gave him some personal grounds to argue that a ‘royal commission [into the 1939 fires] was unnecessary’ due to the likely criticisms of the Lands Department and Forests Commission, as well as the role of farmers and loggers in the outbreaks (The Age 1939d). Lind’s attitude was only shifted by public outcry that the 1926 Black Thursday bushfires had been followed so quickly by a ‘worse disaster’ (The Age 1939d).

Lind (in Collins 2009, p.133) subsequently sought to dismiss Stretton’s (1939) Report as ‘too much generalisation and too little particularisation’; Collins described this as ‘nonsense’ (see also Murray & White 1995). Lind’s ‘tearing into Stretton’, and ‘treat[ing] the Royal Commissioner with sheer bastardry’ was, indeed, a consequence of Stretton’s (1939 p.7) criticisms of the role of graziers and foresters in the fires, and of their testimony to the 1939 Royal Commission. When reflecting on the evidence-gathering process Stretton (1939 p.7) suggested that ‘[t]he truth was hard to find’, as ‘[m]uch of the evidence was coloured by self-interest’, or ‘quite false’, with ‘[l]ittle of it wholly truthful’. This included millers and Forest Officers being ‘loud in praise’ of their collaborative fire management activities, despite Stretton’s (1939 p.7) finding that ‘each had neglected many obligations in the matter of fire prevention and suppression’. That Stretton (1939) ‘did not mince words’ whilst also providing a report ‘full of practical suggestions’ created a ‘nightmare for government and bureaucrats, used to narrow contexts and immediate, practical implementations’ (Collins 2009, p.149). Essentially, instead of a more conventional, easily implementable list of recommendations Stretton’s (1939) Report would represent an attempt at a complete reformation of Victorian bushfire management under a State Fire Authority.

In June 1939, the state government balked at the implications of reformation of fire management and vetoed the idea of a ‘State bush fire authority’ (The Argus 1939g). Lind considered that granting the Forests Commission powers to ‘operate outside the boundaries of
forest areas for fire prevention areas’ and improving the lot of Bush Brigades together with a 
vaguer plan to ‘“tighten up”’ state fire legislation were sufficient responses to Black Friday
(The Argus 1939g). In response the state Labor party issued a no-confidence motion in the 
Dunstan-led Country Party government, and a charge that the ‘ultimate responsibility for the 
indifferent manner’ of Victorian fire management ‘rest[ed] upon [Lind]’ (The Argus 1939h).
The Ministry of Forests had ‘[f]rom 1935 onwards […] dictated to the Forests Commission 
the areas in which […] money was to be spent’; this led to ‘grave errors of policy’, including 
the noted failures that led to losses on Black Friday (The Argus 1939h). For Sir Stanley 
Argyle19 Lind and Dunstan’s position against a new State Fire Authority signified their 
‘unreadiness to rectify the errors of the past [and therefore] unfit to administer the forestry 
policy of the State’ (The Argus 1939h). Dunstan (The Argus 1939t) defended his 
government’s attitude, insisting that the Ministry of Forests had to ‘cut its garment according 
to the cloth’. Dunstan (in The Argus 1939t) argued that increased expenditure on forest and 
fire management would have required reductions in unemployment relief, and that the Forests 
Commission ‘had not been deprived of any powers’ under his administration compared with 
the previous Labor government (Dunstan in The Argus 1939t). The lameness of this bickering 
was captured in The Age (1939g), where it was argued that the ‘precise apportionment of 
responsibility for [Black Friday] is of less importance than the framing of a coherent well-
knit policy to prevent their recurrence’. For The Age (1939g) the ‘obvious next stage’ in 
Victorian bushfire management was to ‘devise […] a well-considered administrative and 
legal system in place of past laxity, unsuitable law, and chaos of inter-departmental feuds and 
jealousies’.

Outside of the extension of the powers of the Bush Fire Brigades to cover pre-fire prevention 
and mitigation activities, and a slow roll-out of bushfire shelters, Stretton’s (1939) criticisms 
did not produce immediate policy change for Victoria’s fire services. Whether this was due to 
the imminent outbreak of World War Two or the ‘friction’ in the political stream is difficult 
to determine. What can be said is that at a state and Commonwealth conference on bushfires 
Victoria’s plan to extend the Forests Commission’s powers and responsibilities were 
considered by non-Victorian observers to be ‘insufficient’ (The Argus 1939j) compared to the 
approach of other states. It was considered ‘absolutely necessary to give the State authority 
control of fires wherever they broke out’, with the planned extension of Forests Commission 
powers to act up to three miles beyond a forest boundary obviously inadequate (The Age 
1939i). Still, though, friction in the political stream, represented by the meagre attempts at 
policymaking of Dunstan’s government and the lobbying powers of graziers and foresters 
prevented the creation of a State Fire Authority for country Victoria (Murray & White 1995).
Had the 1939 fires been an isolated event it is possible that Dunstan and Lind’s proposal of 
an extended Forests Commission powers to act up to three miles beyond a forest boundary obviously inadequate (The Age 1939i). Still, though, friction in the political stream, represented by the meagre attempts at 
policymaking of Dunstan’s government and the lobbying powers of graziers and foresters 
prevented the creation of a State Fire Authority for country Victoria (Murray & White 1995).

19 Victorian Premier from 1932-1935.
(Aminzade 1992; Collins 2009, p.134; Pyne 2015). The ‘softening up’ of opposition to a State Fire Authority by the spate of fires forced the Dunstan government to accept the need for a new central fire management body in country Victoria in the closing stages of World War Two. The position of the war in the ‘chain of linked events’ would have a major bearing on the character of the new authority by demonstrating the potential improvements from fully militarising the organisational and operational principles guiding Victoria’s bushfire management organisations (Aminzade 1992; Goldstone 1998a; 1998b; Mahoney 2000).

3.7 A State Fire Authority

Kingdon’s (2013) model of policymaking argued that for an issue to rise on the governmental agenda there must be a ‘coupling’ of three main factors: there must be recognised problem that requires the attention of policymakers; policymakers must be motivated and able to address the problem; and there must be suitable policies (qua solutions) available to the problem. Victoria’s experience of fire in the 1920s, 1930s and 1940s underlined that there was a fire ‘problem’ in the state, while fire-related losses and political debates drew government attention to the problem. World War Two provided the policy solutions necessary to couple the three streams by providing clear examples of the benefits of a centralised, militaristic model of organising for disasters. By infusing Victoria’s fire services with centralising and militaristic principles the resulting country fire authorities – plural – would provide the conditions necessary for the adoption of a Command-and-Control and Civil Defence-like approach to public safety in later decades. The first of these, the wartime and para-military ‘G’ Committee would serve as the organisational and operational model for the later Country Fire Authority (CFA).

To be sure, military and emergency service organisations had long shared personnel and principles, with the association between Victoria’s pre-1890 brigades and militias an early example of this (Hamilton Spectator 1877a; Murray & White 1995). The next section shows how the First and Second World Wars helped institutionalise these informal links, and produce principles, organisations and organisational models that would guide Australian disaster planning and management in the post-war period. These include Civil Defence as a means to train civilians to perform tasks during wartime and disaster-related emergencies, and belief in the need for a central, militaristic organisational structure to ensure efficiency and effectiveness in emergency planning and management.

3.7.1 Civil Defence
The recruitment and training of Australian civilian volunteers for military, para-military and emergency service organisations during the First World War laid the foundation for a turn to a Civil Defence-like approach to disaster-relevant organisations in the inter-war period, and after the Second World War. Initially, volunteers for Australia’s military, para-military and emergency service organisations were found to be ‘totally unable to cope with the type of work expected of them’ due to their lack of prior training and deficiencies in the equipment, organisation and planning used by such bodies (Burra Record 1939a). To address these deficiencies the volunteers were trained and organised according to a military model, which produced a substantial increase in the human capital available to the recruiting organisations. The decline of paramilitary and wartime emergency organisations during the interwar years saw the training of a ‘large number’ of volunteers wasted due to the volunteers’ ceasing their activities, or the dispensation of their associated organisation (Sydney Morning Herald 1929a). As a result, Barber20 (in Sydney Morning Herald 1929a) suggested that this decline be reversed, and the purpose of such organisations reconsidered, on the basis that a trained ‘army’ of paramilitary or emergency service personnel would prove as useful during an enemy attack as during a ‘severe epidemic’. This view would later be described as the ‘doctrine of dual use’: a belief that militaristic methods of training personnel and organising agencies was the ‘appropriate normative model’ for both military and civil emergencies, with this doctrine guiding disaster planning and management in the latter-half of the 20th century (Dynes 1983; 1994, pp.141-143; Quarantelli, 1987, pp.294-298).

Barber’s recommendations were followed in early 1939 when the First World War-era Voluntary Aid Detachments (VADs) were reconstituted by the Australian Red Cross Society as a means of ‘augment[ing]’ both civilian and military medical services (Burra Record 1939a). The VADs were accompanied by the creation of Volunteer Service Detachments (VSDs), which had a more military-focus in their role in ‘assist[ing] the protection of the civilian population’, but would also provide ‘all manner of service’ during both military- and non-military emergencies (Burra Record 1939a). Both VADs and VSDs were made up of women due to their expected ‘availability’ during wartime emergencies (Burra Record 1939a). While only the VADs were required to pass Red Cross-administered exams prior to service, both organisations were provided with training to ensure they possessed the ‘advanced’ skills and were compatible with the military-style organisational principles defining their roles (Burra Record 1939a).

The emphasis on training and accreditation for volunteers reflected the changing requirements of wartime and civilian emergency organisations. The Australian Women’s Weekly (AWW 1940a) warned of the negative effects caused by ‘[t]he girl who hurries to an organisation and puts her name down for jobs for which she has no training, and may be temperamentally unfitted’. Such volunteers were ‘only a hindrance and not a help’ (AWW 1940a). Men were subjected to similar training requirements prior to their service in

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20 George Barber, Director General of Medical Services for the Commonwealth.
Coordinating the fire-fighting activities of these diverse organisations, as well as standardising training, equipment and practices, required the creation of a new central management body of the kind that the Victorian state government had resisted after Stretton’s (1939) Report. Due to the needs of the war, however, the state government adopted a more receptive attitude to central control of disaster planning and management, particularly bushfire management, which resulted in the creation of the ‘G’ (Rural Fire-Fighting Services) Committee (Dandenong Journal 1943a).

3.7.2 The ‘G’ Committee

The ‘G’ Committee was ‘constituted on the lines of [Stretton’s] recommendations’ for a new central, country fire authority to provide ‘fire protection in rural areas’ (Dandenong Journal 1943a; Riverine Herald 1943a). The ‘G’ Committee was administered by the Victorian Air Raids Precautions Group on behalf of the Civil Defence Service, and intended to coordinate preparedness and response activities for expected ‘incendiary bombing in rural districts’ (SES c.2009; Standard 1942a). The Committee was created amid fears that aerial attacks could ‘achieve excellent results by burning homes, crops, livestock, etc., and by disorganising the civil community in country districts’ (SES c.2009; Standard 1942a). The central ‘G’ Committee was chaired – much to the Brigades’ chagrin – by Lind, and underpinned by ‘approximately 160 […] local committees’ formed by Victorian municipalities to ‘organise the fire prevention activities in their respective districts’ (Camperdown Chronicle 1942a; Standard 1942a). These local committees were to be guided by ‘a pamphlet’, which recommended making ‘all properties as fire-proof as possible by the removal of fire hazards and the preparation of fire-breaks’ and giving ‘special attention [to the] inflammable vegetation’ surrounding crops, and advised that Committees were empowered to issue notices and fines for failure to landowners who failed to perform such actions (Standard 1942a).

Initially the ‘G’ Committees were restricted to ‘prevent[ing] and minimis[ing] the spread of fires […] caused by enemy actions’ only (Horsham Times 1942a; Murray & White 1995, p.113; Riverine Herald 1943a). However, the fire management role and responsibilities of the ‘G’ Committee were such that the Committee’s activities inevitably overlapped with
Victoria’s more established fire services. The Brigades and ‘G’ Committees’ were both active in policing public fuel management activities, with the local ‘G’ Committees holding greater powers than the Brigades to ‘see that the menace’ of fire was reduced (Standard 1942b). The central ‘G’ Committee’s leadership was lauded for its implementing ‘considerable’ fuel management activities, and motivating ‘co-operative efforts [between] brigades and landowners’ (Horsham Times 1942a). At the same time, though, the Brigades’ executives continued to hold ‘serious concerns’ regarding the shift of fire management responsibility from the local to the centre (Glover in Wodonga & Towong Sentinel 1943a). The Brigades and municipal councils considered the ‘G’ Committees to have created ‘more friction’ than had ‘ever been known before’ in Victoria’s fire management strategy, by establishing an unnecessary ‘third statutory body’ that caused confusion in state-community arrangements, and competition between fire services (Camperdown Chronicle 1944a; Gippsland Times 1944b; Glover21 in Portland Guardian 1944b).

Tensions between the Brigades and ‘G’ Committee produced ‘heated’ clashes, with the ‘G’ Committee angry at ‘being ignored in teh [sic] allocation of fire-trucks’, while the Brigades complained of their lack of representation on the central ‘G’ Committee (Alexandra and Yea Standard and Yarck, Gobur, Thornton and Acheron Express 1942b; Dandenong Journal 1944a; Wodonga and Towong Sentinel 1943a). The Country Fire Brigade Board called for the Victorian state government to address these concerns, and was met with ‘indifference’, stoking Brigade hostilities (Alexandra and Yea Standard and Yarck, Gobur, Thornton and Acheron Express 1942b; Camperdown Chronicle 1942a). These hostilities were slightly reduced by appointing representatives from the Country Board to the ‘G’ Committee, but Brigade frustrations remained (Alexandra and Yea Standard and Yarck, Gobur, Thornton and Acheron Express 1942b; Camperdown Chronicle 1942a). The Brigades demanded the ‘restorations to officers in charge of brigade complete control in their own areas’, and considered that there was no ‘need’ for the ‘G’ Committee given that the Brigades could ‘control any fires’ (Camperdown Chronicle 1942a; McKenzie22 in Camperdown Chronicle 1942b).

Lind (in Camperdown Chronicle 1942b) explained that there ‘was no desire on the part of the committee […] to do anything but bring about co-operation between the various fire-fighting bodies in order to obtain the best results in the prevention of fire’, and that the ‘G’ Committee had ‘no desire to overrun’ the Brigades’ executives. Lind’s (in Camperdown Chronicle 1942b) view was that the ‘G’ Committee could ‘bring fire organisations together and weld them into a mighty force in the interests of [Australia]’. This was a clear departure from his pre-war position, but this change in attitude did not soothe the Brigades. A 1942 meeting of the Country Brigades Association, attended by ‘[r]epresentatives of practically every country brigade in Victoria’, passed a resolution calling for a return to the local system of organising

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21 President of the Victorian Country Fire Brigades’ Association, the body that represented the Brigades’ views to the Country Fire Brigades’ Board.
22 W. G. McKenzie, who became deputy chair of the ‘G’ Committee.
fire management (Camperdown Chronicle 1942a). In response, the Victorian state government proposed to ‘fuse’ the Brigades and their executives with the ‘G’ Committee (Wodonga and Towong Sentinel 1943a). The state government considered this a merger, though the Brigades resented it as a takeover by the Committee (Wodonga and Towong Sentinel 1943a). As a result, the Country Fire Brigades’ Association ‘warned all brigades to resist any attempt to make a political play thing of their Service’ (Wodonga & Towong Sentinel 1943a). The significance of this warning in the context of war should not be underestimated. Brigade members, as described above, shared the military’s philosophy of ‘“Devotion to Duty, Discipline and Courage”’, yet here was the Brigades’ representative body called on Brigade members to actively work against the state (Camperdown Chronicle 1946b). These concerns would, however, be overridden by the 1943/1944 bushfire season which provided yet more evidence of the benefits of militarising Victoria’s fire services, and saw the ‘G’ Committee model serve as a guide for Victoria’s post-war Country Fire Authority (CFA).

3.8 The 1943/1944 Bushfire Season

The difficult 1943/1944 bushfire season provided a good test for the relationship between paramilitary, military and emergency service organisations. The fires killed 59 people between December 1943 and January 1944 while over 100,000km$^2$ burnt, and led to another Stretton (1944) Royal Commission (COAG 2004). This second Stretton Report (1944) focused exclusively on fire preparations and fire-fighting related to the State Electricity Commission’s (SEC) assets at Yallourn, though the recommendations made could be applied to the rest of Victoria due to the lack of progress in reforming the Brigade system (see also SEC 1944a; 1944b). This was in part due to the friction and political resistance that accompanied Stretton’s (1939) first Report, with Pyne (2015 p.325) suggesting that the recommendations from the first report were ‘recycled’ in the second (1944) Report. At the heart of Stretton’s Reports (1939; 1944 p.10) was recognition of the ‘valuable and efficient service’ of volunteer fire-fighters amid a call for a new senior fire manager in a locality who had ‘direct access’ to senior state government personnel to tailor a centrally-defined ‘general plan’ to the local context (see also Stretton in The Argus 1944c). This broadly fit with Dugan’s$^{23}$ praise for the efforts of stakeholders in fire-fighting (e.g., the Red Cross, police, military and medical personnel, and the Brigades) whilst pressing for greater militarism ‘state responsibility’ in organising (and militarising) fire management (The Argus 1944d).

The importance of a military-like principles and practices to successful fire-fighting activities can best be seen in the military services’ aptitude in the ‘battle for Victoria’ (The Age 1944c). Victoria’s military personnel had some prior training in ‘fire-precautions’ both through the military and under Victoria’s Forest Commission, but training alone cannot explain the ‘magnificent’ assistance the military services provided to the Brigades during the difficult

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$^{23}$ Sir Winston Dugan, Major General in the British armed forces, Governor of Victoria 1939-1949.
1943/1944 bushfire season (*The Age* 1944b; 1944c). Victoria’s Brigades had long modelled their training and organisational practices after military or para-military groups, yet Pyne (2015 p.341) found that the pre-CFA Brigades had ‘not produce[d] an effect greater than (or even equal to) the sum of their parts’, as they employed ‘inadequate means within an inadequate system to [work towards] inadequate goals’. This failing reflected deficiencies in the Brigades’ methods for organising for and responding to fires. In contrast, the military aptitude for fire-fighting followed from their having considered bushfires a ‘useful operational exercise’ that suited their methods, with the ‘fire enemy [providing] an analogy of an attack by determined and widely-distributed paratroops’ (*The Age* 1944c). The Brigades increasingly took to the idea of bushfire as a ‘battle’ to be approached along a military-style ‘operational basis’, with the distribution and movement of ‘troops’ monitored ‘at headquarters [on] operational maps’, while *The Age* (1944c) noted an increase in the practice of keeping military-like:

> [r]ecords at headquarters [showing] the different localities in which operations were proceeding, how the battle was going, the numbers of personnel engaged at each locality where reinforcements were wanted, the dispositions of reserves, and the distribution of fire-fighting equipment.

Other newly constituted militarised bodies, such as the Australian Women’s Army Service (AWAS), also demonstrated the effectiveness of military-style organisation to fire-fighting, with recruits involved both in fire-fighting and in protecting ‘civilian refugees from the fire disaster’ (*The Age* 1944c). Again, the ‘G’ committee was an essential component in organising, training and directing these fire-fighting services and so demonstrated the need for a reorganisation of Victoria’s bushfire services under a central structure. After the 1944 bushfires at Yallourn Stretton (1944) again made a call for a central body for Victoria’s fire services. Stretton’s (1944 p.6) concerns stemmed from his difficulties in constructing a ‘chart of the organisation of general fire services at Yallourn’, which resulted in ‘many’ of the volunteers and organisations involved left uncertain of their place in the chain of command.

To rectify these issues Stretton (1939; 1944 p.5) recommended the development of a ‘general plan’, and ‘supreme control’ of fire management by ‘one person or body’. Without such a reformation of fire management (both at Yallourn and in Victoria generally) the state’s fire services would continue to be ‘incapable of suppressing large fires’, or even of ‘organised pre-suppression’ activities (Pyne 2015, p.341). Dugan shared a ‘belief’ that bushfires could only be prevented by the ‘establishment […] of an efficient state body – a bushfire army – with its own arrangements, outposts, and reserves, properly organised and led’ (*The Argus* 1944d). Dugan’s remarks mirrored Stretton’s (1939; 1944) concerns over the lack of central organisation for emergency services, but with a war-induced militaristic hue. *The Argus* (1944d) summarised Dugan’s position as identifying fire as ‘an enemy that must be fought as any other’. These arguments were based on the development of the VDCs from ‘not very much’ at the beginning of World War Two into a ‘fine body of men’ by its conclusion, and a
belief that these improvements could be mirrored in Victoria’s volunteer Brigades, were the Brigades to be reconstituted under a central body (Daw24 in Camperdown Chronicle 1945b). That these ideas circulated among senior Victorian fire management personnel helps establish the link between this period of militarisation of emergency services and the later adoption of Civil Defence-like programs for public bushfire safety.

In line with the Brigades’ previous attempts to resist centralisation (e.g., after the Fire Brigades’ Act 1890 (Vic)), and as a portentous sign of the coming the CFA, the Brigades’ attempts to maintain their autonomy were ignored by the state. The Dunstan-led wartime government empowered the ‘G’ Committee to ‘deal with’ any fires in Victoria, ‘irrespective of whether the fires arise from [enemy attack] or any other cause’ (Horsham Times 1944c). Dunstan’s actions here underline how far the Victorian state government’s involvement in organising for bushfire had changed. Prior to the War Stretton’s (1939) recommendations for a State Fire Authority had been blocked by both the direct and indirect action of the Victorian state government to the chagrin of the Brigades (Murray & White 1995; Collins 2009). During the Second World War the Victorian state government created the framework for a new, centralised State Fire Authority against the wishes of the Brigades. The decision to centralise fire-fighting under the ‘G’ Committee was made in the context of War, but also of ‘one of the most destructive grass fire weeks in Victoria’s history’ (Murray & White 1995 p.116). The Victorian public was ‘outraged’ by the deaths of 59 people and burning of more than 10,000km², so soon after the 1939 fire disaster (COAG 2004; Murray & White 1995 p.116; Pyne 2015). In line with Aminzade’s (1992) work on the importance of pace and trajectory the sequence of Black Sunday – Black Friday – Second World War – 1943/1944 fires would ‘force’ the previously ‘parsimonious and intransigent’ state government into action, and thus into creating the CFA (Murray & White 1995 p.116).

3.9 A Multiple Streams Analysis of the CFA Bill

Kingdon’s (2013) model of policymaking underlined the importance of coupling problems, policies and politics in policy decisions. This hints at the importance of temporal characteristics to policy decisions, as policymaking reflects dominant understandings or frames of problems, the knowledge and ideas available to address such problems, and of the effect of prevailing political constraints on what problems the state has to/wants to, and can, confront. The ‘problem’ of fire became one the Victorian state government had to address due to ‘public clamour’ following the ‘disastrous fires’ of the 1943/1944 bushfire season, that had followed so soon after the 1926, 1932, 1936, and 1939 bushfires (Shepparton Advertiser 1945a). As was shown, Lind and Dunstan could avoid acting following the 1939 bushfires by

24 C. A. Daw Chief Officer of the Country Fire Brigades Board and later Chief Officer of the CFA’s Rural Fire Brigades, occasionally misspelled ‘Dawe’.
arguing the merits of the prevailing system (i.e., through inaction), despite an attempted vote of no-confidence in the state parliament (*The Argus* 1939h). The ‘fast’ pace of this chain of major fires, however, and the resulting ‘devastation’ forced the Victorian state government to confront the problem of fire, and more importantly the problems of organising for fire in Victoria (Collins 2009; Murray & White 1995, p.120). In the context of the Second World War Victoria’s state government had to confront the need to achieve ‘better coordination of country fire services’ as a matter of ‘national security’, with this problem addressed through the creation of a new, militaristic central body for Victoria’s fire services (Collins 2009; Murray & White 1995, p.113, p.120).

The need for a central body had long been recognised in the policy stream, and so Stretton’s (1939; 1944) plans for a State Fire Authority were logical next step in the Brigades’ evolution. The Brigade movement had been based on recognition of the ‘futility’ of fire-fighting based on the ‘law of each one for himself’, with this giving rise to brigades, brigade-run associations and then to state-administered Brigades (*Morwell Advertiser* 1945a; *Vic 1885; Warragul Guardian and Buln Buln and Narracan Shire Advocate* 1890a). To successfully fight fires the individual Brigades had to ‘join hands’ to achieve the ‘common good’ of reducing fire-related losses (*The Argus* 1877a; 1877b; Marshall 1930). In light of the organisational lessons from World War Two the obvious model for fire services was a central, military-like organisational structure with associated training and operational practices. The war demonstrated that effective volunteer emergency service organisations could be set up, with relative ease, using a Civil Defence model and thereby reduce losses during wartime emergencies (Brown 1999). The military’s ‘magnificent’ assistance to the Brigades during the 1943/1944 season, and the ‘doctrine of dual use’, led military operational and organisational principles to be considered equally appropriate for bushfire (*The Age* 1944b; 1944c; *The Argus* 1944d; Dynes 1983; 1994). Without greater centralisation of available resources the Brigades (both Country and Bush) would remain ‘incapable of suppressing large fires’, and without a clearer legislative framework and greater resources could not perform the ‘organised pre-suppression’ necessary to protect people and property in Victoria’s fire-prone areas (Pyne 2015, p.341).

To mitigate war- and disaster-related losses during World War Two the Victorian state government created several new paramilitary emergency services and Civil Defence groups. These supplemented existing emergency services, and were trained, instructed and organised per military drill. Both the existing services and wartime groups were administered by the ‘G’ Committee, a wartime organisation operating under the authority of the Civil Defence Service (SES c.2009). The ‘G’ Committee-administered services, together with the on-the-ground military personnel, were credited with reducing bushfire-related losses during the 1940s (*The Age* 1944b; 1944c; *The Argus* 1944d; *Camperdown Chronicle* 1945b). The 1926, 1932, 1936, 1939 and 1944 bushfires in Victoria constituted a fast-paced chain of linked events that drew public attention to the need to reform Victoria’s bushfire management strategy, with the successes of the wartime organisations influencing the principles that
guided reform (Aminzade 1992; Goldstone 1998a; 1998b; Kingdon 2013; Mahoney 2000). The new organisational and operational model for Victoria’s bushfire management organisations used militarism and centralisation as guiding principles in the incoming Country Fire Authority (CFA). World War Two also represented a conjunctural event between the developmental pathways of Victoria’s fire services and community, as senior CFA personnel were impressed with the transformation of human capital achieved through Civil Defence programs (e.g., Daw in Camperdown Chronicle 1945b). Civil Defence was not immediately implemented as a public safety strategy due to the enhanced efficiency and effectiveness of the new CFA system in reducing fire-related losses, but the idea of Civil Defence as a public bushfire safety strategy had been established in the policy primeval soup. Belief in the possibility and potential benefits of training civilians to serve as a fire-fighting reserve therefore laid dormant in the policy primeval soup until an appropriate policy window opened.
Chapter 4: The Foundation and Development of the CFA

This chapter focuses on the organisational development of the Country Fire Authority (CFA), and how the CFA evolved organisationally as a formalised and unified body. It focused on the first two iterations of the Country Fire Authority Act 1944 and 1946 (Vic),\(^{25}\) and the subsequent functioning of the Bush Fire Brigades – now rebranded as the CFA’s Rural Brigades – in an increasingly complex technological, organisational, and political context. The analysis described the effects of organisational and operational change, as well as technological change and the increasing influence of scientific fire management on the Brigades’ functioning as public service. Given the size of this theme some issues raised in these areas will necessarily seep into other chapters; the discussion of the effects of technological change on the Brigades, for example, affects both their organisational and operational performance, and the community’s relationship, role and responsibilities vis-à-vis the fire services. Rather than maintain the strict periodization adopted in previous chapters the thesis aims for thematic rather than chronological consistency; this can be seen in the discussion of technological complexity improving Brigade functioning in this chapter, and reducing ‘civilian’ involvement in organised fire-fighting in subsequent chapters.

The most striking feature of the CFA Act 1944 (Vic) was the scale of the shift in power from the local to the centre specified in the Act’s terms. The CFA was granted all powers for registering, training, disciplining and resourcing Victoria’s Bush (now ‘Rural’) and Country (now ‘Urban’) Fire Brigades (CFA Act 1944 (Vic) (s.18-20; s.50; s.85)). The Country Fire Brigades’ Board and Bush Fire Brigades’ Committee were to be ‘abolished’, with the Brigades’ allegiance ‘transferred’ to the CFA (CFA Act 1944 (Vic) (s.18-20)). Brigades were free to reject these terms, but the impacts on Brigade functions would be severe; Section 27 of the CFA Act 1944 (Vic) made it illegal for any ‘association of persons [to] operate as a fire brigade in the country are of Victoria’ if the brigade was not registered with the CFA. To soften these punitive terms the CFA offered inviting concessions for registrations, such as guaranteed payments from the CFA, the ‘pooling’ of Urban/Country and Rural/Bush Fire Brigades’ resources, and a windfall of military surplus. Further, the CFA Act offered enhanced legal protections and insurance provisions for registered Brigades, two issues that had long been a source of concern among volunteer fire-fighters (CFA Act 1944 (Vic) (s.69)). Finally, it was hoped that the concession of the Proper and Regional Officers, locally-based actors empowered in law (though not in practice) with powers of the CFA’s Chief Officer and intended to integrate local concerns and central plans would convince suspicious locals of the benefits of CFA membership (CFA Act 1944 (Vic) (s.38; s.45).

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\(^{25}\) The 1944 and 1946 Acts; the 1958 Act would serve as the foundational Act for amendments made to the CFA Act in the later 20th century, but is largely similar to these first two Acts and does not invoke quite as much controversy.
This reformation of Victorian bushfire management would later be described as an attempt to raise a new ‘bushfire army, with its own outposts and reserves’ that would, unlike previous bushfire-fighting groups, be ‘properly organised and led’ from the centre by the CFA (Murray & White 1995 p.121). The need for such a reformation has been explored in the preceding chapter. Briefly, while it was recognised that the Country Brigades, and especially the Bush Brigades, had performed ‘heroic deeds’ with ‘little equipment and under the most adverse conditions’ they had not been able to prevent major fire-related losses (The Age 1944a). The centralising of Brigades under the CFA promised to improve Brigade performance by mandating training and inspection of previously unmonitored Bush/Rural Brigades, and to substantially improve the resources of all Brigades. Brennan (1979 p.93) identified the CFA as being ‘largely’ responsible for the ‘end [to] the threat of major fires’ in Victoria from the 1940s onwards. Further, it was ‘common-sense’ that ‘[o]ne single authority is always more effective than a dozen competing interests’ (Brennan 1979, p.93). Translating this common-sense position into practice, however, was a difficult task due to predictable Brigade concerns over lost autonomy, finding a balance between central and local control over decision-making in fire management, and simmering tensions between Rural/Bush and Country/Urban Brigades.

4.1 Autonomy under the 1944 CFA Act

The most pressing concern for the Bush Fire Brigades and Municipal Association regarding the CFA Act 1944 (Vic) was the loss of local autonomy in fire management activities. The depth of this concern is apparent in the available record, with newspaper reports between 1944 and 1945 full of valid – and invalid – concerns over the likely impacts of the 1944 Act on local actors’ autonomy under the CFA (e.g., Gippsland Times 1945c; 1945d; 1945e; Horsham Times 1945a; Kilmore Free Press 1944a). Instead of protections for their locally-based governance system the Bush Brigades expected following Stretton’s Report (1939), the CFA Act 1944 (Vic) (s.18-20) would ‘abolish’ the Country and Rural Fire Brigades’ Boards, and Brigade members’ allegiance ‘transferred to the service of the [Country Fire] Authority’. This was not in and of itself a major concern for the Brigades. The Bush Brigades were willing to work under a state body – the Forests Commission for example – provided the state body understood bush fire-fighting (see e.g., FCV 1933a; 1935a; 1935b). Indeed, a resolution was passed at the 1939 Interstate Bush Fire Conference that the Forests Commission and Bush Brigades be ‘conjoined under a Ministry of Rural Fire Prevention and Defence responsible for the protection of the entire community from bush fires’, and that the new body’s ‘duties and powers be defined by Act of Parliament’ (FCV 1939a, p.37). Angus

26 In both their organised and unorganised form.
27 Note that Brennan (1979) is writing four years before Ash Wednesday.
Cameron\textsuperscript{28}, likewise, indicated that the Bush Brigades were not ‘strenuously’ opposed to a single ‘rural fire control authority’; they were ‘prepared to act under one for co-ordination purposes’ but ‘insisted on having supreme control in their own domain’ (\textit{The Argus} 1944a; \textit{Kilmore Free Press} 1944a). The Bush Brigades absolutely opposed being ruled by a body ‘mainly composed of men who have no practical knowledge of the needs of bush fire brigades’ (Alex Hooper\textsuperscript{29} in \textit{Gippsland Times} 1945c). The limited representation of ‘bush’ interests on the CFA’s new executive Authority constituted by the 1944 Act therefore spread fears that the new administration would not have the skills or understanding necessary to effectively manage bushfires, and thus be harmful to the Brigade movement, with these fears compounded by the personnel selected for the CFA’s Authority.

The appointment of C. A. Daw, the former Chief Officer of the Country Fire Brigades’ Board, as head of the Rural [formerly Bush] Fire Brigades’ Association\textsuperscript{30} validated the Bush/Rural Brigades’ concerns. Daw’s previous experience with Country Fire Brigades was considered irrelevant to bushfire fighting, as the Bush Brigades believed the two bodies employed fundamentally different styles of fire-fighting. A key example offered was that, unlike the Country Brigades, the Bush Brigades’ activities often did not involve the use of water mains (\textit{Kilmore Free Press} 1944a). Hooper appreciated Daw was an ‘excellent Urban fire fighter’, and as a ‘good man’, but Daw’s appointment ‘over the heads of four nominees of the Bush Fire Brigades’ was ‘deeply resented’ (\textit{The Argus} 1945c; \textit{Gippsland Times} 1945b; 1945c). Daw’s appointment was the ‘last straw’ for the Bush Brigades, and confirmed their view that the CFA Act was part of a Country Fire Brigades’ Board plot to co-opt the Bush Brigades’ personnel, equipment and community goodwill, without granting the Bush Brigades commensurate representation or influence on the executive (\textit{The Argus} 1945c; Murray & White 1995). The Bush Brigades had little success in conveying these concerns to the state government. Hooper (in \textit{Gippsland Times} 1945c) reported that the Victorian state government refused to ‘answer correspondence’ from the Bush Fire Brigades’ Association regarding the Brigades receiving ‘more representation on [the CFA’s new] Authority’. Under the new Authority Hooper (in \textit{Gippsland Times}, 1945k) noted that ‘rural representatives’ would be ‘outvoted eight to two’, with the ‘eight’ made up of ‘paid government officials’ that had little experience of bush fire-fighting. As a result, Hooper (in \textit{Gippsland Times} 1945c) blasted the Victorian state government for implementing ‘only the proposals made by Judge Stretton that suited them’, and thereby undervaluing the contribution to public safety made by the Bush Brigades.

Such public criticism did not change the state government’s attitude to the Bush Brigades. Hooper was forced to cancel a 1945 Brigade protest march to the State Parliament due to

\textsuperscript{28} President of the Bush Fire Association, and future member of CFA’s Authority.
\textsuperscript{29} Secretary of the Heyfield and District Bush Fire Brigade and outspoken critic of the CFA Act.
\textsuperscript{30} The body that replaced the Bush Fire Brigades’ Association.
Lind (possibly deliberately) not being at Parliament (The Argus 1945c; Murray & White, 1995). The state government might even be said to have deliberately provoked the Brigades, with Hyland’s intention to ‘wipe out the Country Fire Brigades’ Board [and] the Bush Fires Association’ and ‘start again from the ground up with an entirely new Board or Committee’ obviously incendiary remarks (Gippsland Times 1944a; 1945b; 1945k; Horsham Times 1945a). As a result of the state government’s attitude, and Hyland’s remarks, Hooper concluded that Hyland and Dunstan were doing ‘everything possible to wreck’ the Brigade movement (Gippsland Times 1944a; 1945b; 1945k; Horsham Times 1945a). The Brigades therefore threatened to reject the CFA and continue as an independent, Brigade-managed movement. Again, the state government did little to calm tensions. Dunstan and colleagues remained intransigent and, confident in their unassailable position, gave little in the way of concessions to the Brigades. The Bush Brigades were more-or-less forced into compliance by the terms of the CFA Act 1944 (Vic) (s.27), such as prohibitions against ‘any association of persons [operating] as a fire brigade in the country area of Victoria unless it is first registered and its officers and members enrolled in accordance with [the] Act’. However, the Bush Brigades’ anger at their treatment and fears of being under-represented on a central body that did not understand the nature of bush fire-fighting led to repeated threats that the Brigades would reject the CFA (Bush Fire Brigades’ Association cited in Kilmore Free Press 1944a).

4.2 The Threat to Deregister

Newspaper accounts indicate that the Brigades were both serious and confident and in their ability to revolt against the CFA. Shepparton Shire Council (in Shepparton Advertiser 1945a) reported the Brigades’ being ‘not satisfied’ with the CFA Act, and plan to ‘de-register’ from the CFA and to ‘carry on efficiently without the [Country] Fire Authority’. From his position as President of the Bush Fires’ Association Cameron (in The Argus 1945a) warned that the Brigades had ‘decided to de-register after the summer months if their demands’, regarding greater representation on the Authority, autonomy, resourcing, and insurance, ‘were not considered’. Cameron (in The Argus, 1945a) stressed that he was ‘expressing the views of the bush fire brigades’, and made a ‘flat denial of allegations that [he himself had] been causing friction’ between the Brigades, state government, the CFA and other stakeholders. Hooper (in Gippsland Times, 1945k) offered support for Cameron’s claims by announcing another ‘protest meeting’ to be attended by 1,500 Bush Fire Brigade members. If Hyland (and Dunstan, and Lind) continued to refuse to meet a delegation from this group Hooper (in Gippsland Times, 1945k) warned that ‘the brigades will take drastic action and [de-]register and maybe carry on as illegal brigades’. Similarly, the Heytesbury Brigade passed a no-confidence motion in the CFA ‘as constituted’, threatening non-registration without substantial amendments to the CFA Act 1944 (Vic) (The Argus 1944b; 1945g; Horsham Times 1945a). Dunstan, like Lind, refused to meet with the Bush Fire Brigades to discuss changes at this stage, leading the Bush Brigades’ executive to call ‘delegates from all brigades in Victoria to a conference in Melbourne’ to discuss the possibility of rejecting the
CFA Act (Vic) (*Horsham Times*, 1945a). This opposition quickly lost momentum. The planned march of Bush Fire Brigade members on State Parliament House, announced on 21 August 1945 to press ‘claims for amendments to the Country Fire Authority Act’, was downgraded ten days later into a warning that ‘unless the Government acceded to the requests within one month’ the Brigades would refuse to register with the CFA (*The Argus*, 1945c *Horsham Times* 1945a). The Brigades repeated that without substantial change ‘they would refuse to work under the act or have anything to do with [the CFA]’, but the strength of this opposition was quickly dissipating due to the CFA’s total control of Brigade affairs (*The Argus*, 1945c).

Despite the Brigades’ vitriol there can be some doubts as to their ability to carry out their threats. The terms of the *CFA Act 1944* (Vic) were such that a brigade’s existence outside of the CFA would be illegal, and likely an impoverished one. Further, were the Brigades and Brigade members to deregister they would have deprived themselves of their valued and prestigious role as community protectors. Daw (in *Gippslan Times* 1945b) warned that where a Brigade refused to register the CFA would ‘see that the area [was] serviced somehow’, a veiled threat that the CFA would establish an official, rival Brigade. Under the terms of the CFA Act as understood by the Brigades, privately-held equipment was to be transferred to the CFA and redistributed to other Brigades. Hence, the Brigades were faced with a choice of snubbing the CFA and its associated benefits, and inviting the Authority’s hostility in redistributing equipment, or accepting the CFA’s terms as stated in the Act and hoping to extract future concessions (*Gippsland Times* 1945j; *Kilmore Free Press* 1944a). In this context, the CFA’s all-but insurmountable legislative position and the intransigence of Victoria’s political leaders left the Bush Brigades with little choice but to register with the CFA and rebrand themselves as CFA-affiliated Rural Brigades.

### 4.3 Why CFA Won

The terms of the *CFA Act 1944* (Vic) meant that the Bush Brigades had little real alternative but to register with the CFA. As can be seen in image 2, Section 27 of the *CFA Act 1944* (Vic) made it illegal for any volunteer fire brigade to operate without first registering with the CFA. If the Brigade did not register it would also be operating without either the financial support or legal protections offered to the CFA Brigades (*CFA Act 1944* (Vic) (s.27). It appears that the Bush Brigades believed, or at least hoped, that the terms could not be enforced and raised this with Daw during a meeting at the Maffra Mechanics Institute (*Gippsland Times* 1945b). Among a ‘barrage’ of questions Daw was asked whether unregistered brigades would be actively prevented from fighting fires, or whether they could ‘act independently [of the CFA and] go as rafferty rules’ (*Gippsland Times* 1945b). Daw accepted there was ‘nothing to stop’ unregistered brigades from ‘setting out on [their] own’
(Gippsland Times 1945b). When this was argued to be an exception to the CFA Act 1944 (Vic) (s.27) Daw, in a manner typical of the CFA’s dealings with the Brigades at the time, ended the debate by declaring that the audience seemed to ‘know all about it [already, and has] heard what [Daw] said’ (Gippsland Times, 1945b).

Image 2: The CFA Act and Emergent Organisations

27. No association of persons shall operate as a fire brigade in the country area of Victoria unless it is first registered and its officers and members enrolled in accordance with this Act, and no persons so operating without such registration and enrolment shall have any powers or privileges or the benefit of any immunity conferred by this Act.

(CFA Act 1944 (Vic) (s 27).

If a Bush Brigade refused to register with the CFA and ‘set out on their own’, Daw (in Gippsland Times 1945b) indicated that the CFA would consider the Brigades’ area to be unprotected, and ‘see that the area was serviced’ by raising a CFA-affiliated Brigade. Thus the reluctant Brigades’ claim that they would ‘break the law’ relating to section 27 of the CFA Act rang hollow; were they to do so their efforts would most likely come into competition with a Brigade protected by the CFA Act, and supported by the CFA (Kilmore Free Press 1945b). The insurance and legal provisions of the Act and financial and organisational support from the CFA combined with a tenuous proposal to revisit the terms of the 1944 Act after the coming fire season promoted the registration of most the Bush Brigades with the CFA, though tensions within the newly centralised fire management system would continue to simmer through the 1940s.

4.3.1 Insurance and Legal Protections

The centrally-defined protections offered under the 1944 Act were a major advance on the pre-1944 deal but confused and complicated the management of Bush Brigades. Unlike their Country Brigade counterparts, the Bush Brigades were not required to keep a list of registered members, or to regularly attend training or fires, and efforts to combine these
organisational processes under the CFA created difficulties for the Bush Brigades. The 1944 Act offered a larger pool of insurance and enhanced legal protections for registered Brigade members but ambiguities in the requirements for protection, and differences between the requirements for Bush and Country Brigades, caused tensions among the Brigades. The new insurance terms provided no protection for the thousands of ‘volunteers’ who assisted the Bush Brigades when required, or for registered volunteers who ‘may be visiting a [fire-affected] district’ and were subsequently killed or injured while ‘helping to quell an outbreak’ (CFA Act 1944 (Vic) (s.31-32; s68-76); Gippsland Times 1945b; Kilmore Free Press 1945b). The Brigades also struggled to clarify the requirements for their insurance and believed – probably wrongly – that they were required to satisfy attendance hurdles before receiving insurance and legal protections ((CFA Act 1944 (Vic) (s.31-32; s68-76); Gippsland Times 1945b; Kilmore Free Press 1945b). Thus the formalisation of insurance and legal protections under the 1944 Act created both administrative difficulties for the CFA, and stoked Brigade hostilities (The Argus 1939c). When these were added to the financial implications of an insurance scheme for the tens of thousands of Bush Brigade members the Brigades, again, considered de-registering. Thus what should have been a major selling point for registration with the CFA quickly became a major bone of contention between the CFA and Brigades.

To meet the cost of this new insurance scheme it was necessary to reconsider Victoria’s Bush Brigades financial arrangements. The 1944 Act would see the Bush Brigades’ funding brought into line with the Country Brigades, where the municipalities, state Treasury and insurance companies would each meet a third of Brigades’ total expenditure. This new central control of Brigade finances predictably raised concerns among Bush Brigades and municipalities who had been accustomed to a more ad-hoc method of funding, based on donations from councils, the community and insurance companies supplemented by contributions from Brigade members themselves through dues and fees (Kilmore Free Press 1944b). The ad-hoc approach provided the Bush Brigades more freedom in decision-making than they experienced under the CFA, and more than the Country Brigades under their Board, because they were not as accountable to the state. The new arrangement raised the financial status of both sets of Brigades and allowed for improvement of their equipment, but at the same time drew criticisms, particularly from the Bush Brigades. The Brigades’ concerns reflected their typical concerns regarding the loss of autonomy, the increased cost of fire management, the efficiency and effectiveness of the spending, and the fairness of the portion allotted to the municipalities, and thus created more tensions between the pro-centralising and pro-local factions active in Victoria’s fire services.

4.3.2 Funding and Resourcing
The Country Fire Brigades’ Board had historically rejected applications for registration from volunteer Brigades in ‘bush’ areas. This was partly a result of the differences in fire-fighting tactics used by more-urban Country Brigades, and those practiced by ‘bush’ brigades, and partly due to concerns of the cost-effectiveness of supporting a large number of (often fleeting) bush brigades (Murray & White 1995; Pyne 2015). Due to the Board’s concerns regarding the cost of establishing and maintaining such brigades the bush brigades had resorted to ad-hoc sources of funding that, while not always conducive to a well-funded and well-resourced fire service, satisfied municipal and local desires for a cost-effective, affordable fire service. As the 1944 Act required municipalities provide a third of the CFA’s total funding – a large increase on the individual municipalities’ existing contribution – Municipal opposition was inevitable. The Municipalities unrest was accentuated by a feeling that the “large sum[s]” sent to the CFA were not matched by the quality or quantity of material provided to Brigades (Gippsland Times 1945e). Councils in low fire-risk areas also complained of their ‘excessive’ contribution to the CFA due to their unease at subsidising councils in higher-risk areas, and more generally at the fairness of the relatively poor Municipalities providing an equal share of funding as the better-off insurance companies and state Treasury (Kilmore Free Press 1944b; Shepparton Advertiser 1945a). Finally, Municipalities were convinced that the new funding arrangement represented double-taxation; the Municipalities were supporting the CFA both directly through their own 1/3 contribution, and in part covering the state Treasury’s contribution through their payments to the state (Gippsland Times 1945e; Horsham Times 1945c).

The Municipalities concerns were certainly valid, but this did not prevent the state government from persisting with the 1/3 split of costs. The state’s persistence with this funding arrangement reflected both the political realities of paying for a new fire service, and the ‘public clamour’ that followed the spate of ‘disastrous fires’ in Victoria between 1926 and 1944, that required a concerted effort to ‘provide […] essential equipment for both town and rural brigades’ (Shepparton Advertiser 1945a). Up to the CFA Act the Brigades, and Victoria’s volunteer fire services generally, were persistently ‘hamstrung through lack of money’, with Murray and White (1995 p.107) finding that Brigades struggled to meet even the incidental costs of fire management such as provisions and accommodation. The more “substantial” costs, including those related to fire-fighting equipment, were often unaffordable, leaving some Brigades ‘inadequately equipped’ and Brigade members being ‘very lax’ as fire-fighters (Cameron in The Argus 1944a; Kilmore Free Press 1945a; Murray & White 1995, p.107; Portland Guardian 1945a). Of course, there were a good number of Brigades that were adequately equipped and carefully organised, but the central management and funding produced by the CFA would see that the standard of impoverished and/or ineffective Brigades could be improved, and thus the state’s ability to mitigate losses enhanced.
Confusion surrounding the terms of the 1944 Act, and the nature of the powers of the new Authority, soured the Brigades’ feelings towards the CFA. Ambiguity over the service expected of Country and Bush Brigades led the Bush Brigades to believe that their voluntary contribution to local fire-fighting was now mandatory, as attendance at a pre-determined number of fires was believed to be a condition for insurance, and that privately-owned equipment would be forcibly pooled and redistributed to other Brigades (Gippsland Times 1945b; Horsham Times 1945a). The 1944 Act did not empower the CFA to take these steps vis-à-vis the Bush Brigades but poor communication between senior CFA personnel, policymakers and the Brigades, together with the Brigades noted fears of a “takeover” did little to ease these tensions (Gippsland Times 1945b; Kilmore Free Press 1945b). Brigades threatened to refuse to register with the CFA to preserve their autonomy, though this threat would not prevent most Brigades’ registering with the CFA because of the CFA’s powers over Brigades produced by the centralising of Victoria’s bushfire management organisations.

A necessary corollary of using public funds to support Brigades was the loss of Brigades’ autonomy, as Brigades became financially accountable to the state. The result was a predictable upsurge in Brigade unrest. Daw (in Gippsland Times 1945b) would celebrate that the Brigades no longer had to go ‘cap-in-hand seeking donations to purchase their equipment’, but it might be equally said that the Brigades could not go around ‘cap-in-hand’. Public donations, volunteer fundraising and/or the commitment of volunteers’ own monies to an organisation has been shown to increase the cohesiveness of a social movement (Sampson et al. 1997), including local fire Brigades (Marshall 1930). Under the CFA Act public donations were prohibited, and Brigades left ‘unable to levy land’ or raise ‘grants from the shire councils’ to support their activities due both to the terms of the CFA Act 1944 (Vic) (ss.50 ss.1) and the Municipalities’ already heavy contribution to the CFA (Horsham Times 1945a). Thus, the CFA’s purported generosity to the Brigades was something of a mask for the extent of the CFA’s control over Brigades. The funding restrictions of the CFA Act combined with legal prohibitions against non-CFA registered Brigades left the independence-minded Bush Brigades’ position all-but untenable. Calculatingly the CFA turned the screw on Brigades that were slow to register with the Authority by refusing to make financial assistance available to such Brigades during the ‘safe winter months’ prior to the 1945/1946 bushfire season, such that reluctant Brigades could not complete the purchase or maintenance of essential equipment (Horsham Times 1945a). These negative tactics did little to relieve the Brigades’ suspicions of the CFA but were, certainly, effective in promoting Brigade registrations.

The potential gains for Brigades from swift registration with the CFA were huge. Under the CFA the Bush Brigades would be amalgamated with the Country Brigades that could offer a massive windfall for early-adopters. Access to the Country Brigades’ resources, and the more general benefits of CFA membership, led to a growing view that registration might be ‘well worth’ any lost autonomy (Camperdown Chronicle 1945a; Numurkah Leader 1945a). In 1944 the Bush Fire Brigades’ Committee held £100,000 worth of assets to the Country Fire
The sizeable difference in the Boards' contributions, however, combined with the Bush Brigades’ protests against the CFA, created another source of difficulty for the CFA’s takeover of country fire management. The Country Brigades, who experienced less substantial changes through affiliation with the CFA, did not understand the Bush Brigades’ concerns and animosity regarding affiliation. The view developed among the Country Brigades that the Bush Brigades were ungrateful; they were an amateurish, impoverished organisation that stood to make massive gains from affiliation with the Country Brigades under the CFA. The Bush Brigades, however, considered that their contribution to Victorian fire management and the massive growth in their movement warranted the kind of privileged position apparently promised to them in Stretton’s Report (1939) (see also *Horsham Times* 1944a; *Kilmore Free Press* 1944a). The result was a public spat between the two fire services that threatened to fracture Victoria’s new unified country fire service.

### 4.4 Inter-Brigade Tensions

The tensions between the Country and Bush Brigades reflected the former’s longer tradition and their being a ‘recognised body, entitled to and receiving regular grants, possessed of equipment [and] trained by experienced fire officers’, and the latter’s less-refined, but more impressive, growth as a movement (Stretton 1939, p.21). To the Country Brigades, whose standards of training and discipline had been specified and refined in the Fire Brigades’ Acts, the less-formal Bush Brigades represented a throwback to the pre-1890 style of fire-fighting, while the Bush Brigades remembered the Country Brigades’ indifference to the early stages in the development of the Bush Brigade movement (Murray & White 1995). These factors challenged Stretton’s (1939 p.21) prediction of a smooth merger of the two into a new State Fire Authority. Stretton (1939 p.21) believed both services could ‘cooperate’ due to their similarities in terms of volunteer make-up and focus on protecting their communities from fire. Instead of these similarities the Bush Brigades focused on their diminished autonomy under the CFA, and limited representation of the CFA’s Authority, which produced frustration among Country Brigades at the perceived ingratitude of Bush Brigades at becoming ‘equal partners’ with the well-established, highly trained, and better equipped Country Brigades (*Horsham Times* 1944a).

The Bush Brigades’ attitude towards amalgamation with the Country Brigades reflected a belief that the ‘Country Fire Brigades’ Board [wished to] step in and reap the harvest from the efforts of the bush fire organisations’ (Harding31 in *Kilmore Free Press* 1944a). These efforts saw the Bush Brigade movement grow from a loose collection of emergent brigades with ‘practically no power [fire-fighting] equipment’ in the early 20th century into a formal

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31 First-Constable Harding, Captain of the Kilmore Bush Fire Brigade.
organisation with some 20,000 registered members and ‘hundreds of power pumps’ in the 1940s (FCV 1933a; Carver32 in Gippsland Times 1945h; 1945j; Kilmore Free Press 1944a). This growth had been accomplished with ‘practically no government help’ (Carver in Gippsland Times 1945h; 1945j). The strength of the Bush Brigade movement can also be seen in its membership compared to the Country Brigades; the Forests Commission (FCV 1933a) reported 20,000 registered Bush Brigades members in the first year after the 1933 Bush Fire Brigades’ Act, while Marshall (1930 p.80) estimated that around ‘20,000’ Country fire-fighters ‘went through [his] hands for instruction’ during his 30-year association with the Country Fire Brigades’ Board. No other, more accurate figure for the Country Brigades’ membership has been found for the period, with Kilmore Free Press (1941a) and Wodonga and Towong Sentinel’s (1941a) estimated between 3,000 and 4,000 members of Country Brigades appears low in comparison. It is also possible that the Forests Commission’s figure might be inflated, as The Argus (1935a) claimed ‘13,000 members of bush fire brigades’ in 1935, with ‘many brigades […] unregistered’, while The Age (1944a) estimated some ‘about 30,000’ members of Bush Brigades in 1944. Regardless, that a volunteer movement attracted between ten and thirty thousand members in its first years of operation is a clear indication of the strength of the movement, particularly in comparison to the figures reported relating to the Country Brigades membership.

The Bush Brigades’ self-reliance in growing the movement both in terms of membership and resources, including the ‘700’ Bush Brigades that had ‘sprung up’ between Black Friday and the 1944 Act, left the movement averse to being ‘taken over by a body comprised of 200 Brigades’ (Kilmore Free Press 1944a). Even the prospect of access to the Country Brigades’ superior equipment was not enough to convince some Brigade members of the benefits of amalgamation under the CFA (Horsham Times 1944a; Kilmore Free Press 1944a). The Bush Brigades’ criticisms of the Country Brigades’, of course, created tensions between the two bodies. The Country Brigades, in response, diplomatically claimed that they did not ‘begrudge’ the Bush Brigades’ ‘advantages’ from amalgamation, such as the Country Brigades sharing their resources, equipment and expertise ‘in return for little or nothing’ from the Bush Brigades, and blaming ‘certain interested parties’ for the bad feeling between the two (Moyle33 in Horsham Times 1944a).

Moyle (in Horsham Times 1944a) reckoned that the Bush Brigades had been ‘treated more generously than their counterparts in any other state’ under the 1944 Act, and thus Moyle (and the Country Brigades) could not understand the Brigades’ hostility. Here Moyle might have missed the point somewhat. It was not so much the terms of the Act that the Bush Brigades objected to as its implications. The Bush Brigades held a sincere view that their movement, despite its limitations, was ‘sufficiently self-supporting and self-contained to undertake all the work necessary’ in terms of fire management, and preferred this to a

32 M. Carver, Secretary of the Bush Fire Brigades’ Association.
33 W. Charles Moyle, President of the Country Fire Brigades’ Board.
centralised system (*Camperdown Chronicle* 1939a). Bush Brigade members, ‘[b]eing conversant with the locality’ understood the local needs for fire management to such an extent that some considered there was ‘no necessity for central control’ (*Camperdown Chronicle* 1939a). The ‘encroachment’ of the centre (through the CFA) into a local affair was resented as going ‘too far’, and not the ‘right way’ to manage fire risk (*Gippsland Times* 1945e). ‘[F]ully competent’ local actors were to lose control of local fire management to ‘paid […] Fire Officers’ (*Gippsland Times* 1945e; *Kilmore Free Press* 1945a). This point was ‘resent[ed]’ by the volunteer Brigades both as a threat to their autonomy and as a violation of a foundational promise that all the CFA’s funding would go towards improving the condition of the Brigades (*Gippsland Times* 1945e; *Kilmore Free Press* 1945a). Having paid staff overseeing and directing volunteer Brigades might be considered within the letter of the Act, as professional staff might improve Brigades through better organisation, training and direction. However, the creation of paid positions was certainly not in line with the Brigades’ view of the spirit of the Act, and thus created another front in the Brigades’ campaign against the CFA Act.

### 4.5 Paid Staff and Volunteer Brigades

The most visible of the CFA’s new paid staff were the Regional Officers, actors intended to perform an integrating role between central plans and local conditions in fire prevention (Murray & White 1995). Against the pre-CFA tradition, where Brigade members organised fire prevention activities, the new Regional Officers were charged with ‘mak[ing] people fire-conscious’ by incorporating the ‘best’, ‘scientific and modern’ methods into local fire prevention activities (*The Argus* 1946c; *Camperdown Chronicle* 1944b; 1945a; *Healesville Guardian* 1946a; *Wodonga & Towong Sentinel* 1946b). The Regional Officers were also to inspect and discipline Brigades per standards laid down by the CFA’s Authority, again establishing these paid actors as superiors to the volunteer Brigades. These roles could be performed by Regional Officers directly, or through the Proper Officers, the CFA representatives on municipal councils with responsibility for ‘instruct[ing] the brigades on the removal of hazards’ in a locality (*CFA Act 1944* (Vic); Murray & White 1995). The result was fierce criticism of the new Officer’s centrally-provided authority, and perhaps more importantly, Brigades’ concerns over the qualities and expertise of their new (paid) managers (e.g., *Kilmore Free Press* 1945a).

The Proper and Regional Officers reflected a belief in the need for better administration of Victoria’s fire management activities. A state-wide approach with authority and responsibility divided between the Forests Commission, Brigades and other stakeholders (e.g., Lands Department or State Electricity Commission) was unmanageable, and contributed to the fragmented distribution of authority and responsibility that had been used to justify government inaction prior to Black Friday (*FCV* 1939a, p.5; Stretton 1939). Under the CFA
Victoria was divided into ‘[r]egions of fire control’ administered by the Regional Officers that allowed for better coordination and performance of fire prevention activities than the previous, relatively ad-hoc system (The Age 1944a). In practice, though, the idea was not well-received. Having a centrally-appointed figure hold authority over knowledgeable local actors – including Brigade members – led Gippsland Times (1945e) to criticise the Officers’ role as being ‘drafted by insurance companies, ruled from Collins Street […] and not workable in Gippsland’. The new system required Regional or Proper Officers ‘inspect regularly all rural districts’ to judge ‘whether the provisions of [the CFA Act were] being properly and effectively carried out and administered’, adding a layer of bureaucracy to fire management that the Brigades considered unnecessary and inefficient (Kilmore Free Press 1945a; The Argus 1946c; Healesville Guardian 1946a). Having Proper and Regional Officers to ‘co-ordinate the work of the Brigades’, to ensure that ‘no brigade beyond requirements [were] formed in a locality’, to ‘assist in the planning of adequate fire preventative measures’, and instruct ‘Brigades and everybody in fire-fighting and the use of equipment’ was likened to the Officers’ ‘[t]eaching their grandmothers to suck eggs!’ (The Argus 1946c; Healesville Guardian 1946a; Kilmore Free Press 1945a). Alternatively, the Proper and Regional Officers represented a state-selected group that controlled how many Brigades were formed, had a say in Brigade activities, and were authorised to sanction Brigades that did not perform as required. The result was ‘hostility or indifference’ among many stakeholders, and a severe handicap to the functioning of the Officer system due to local opposition (Morwell Advertiser 1948a).

A core duty of the Officers was to issue ‘hazard notices’ to locals who did not reduce fuel loads on their property in the months leading to fire season; as residents, Brigades and Municipalities were hostile or indifferent to the Officers, the Officers received little local assistance outside of what was legally required (Coolgardie Miner 1947a; Kilmore Free Press 1945a; Murray & White 1995, p.126). This hostility reflected general local antipathy towards the state, and a growing fear of the increased power of the centre over the local.

Residents were concerned that were the centrally-appointed Officers to take a ‘dislike’ to a landholder, the Officer could ‘order [fuel] clearing to such an extent that it would force the man off the land’, and that they would come to have ‘no say in [their] own affairs’ (Gippsland Times 1945d; 1945e). The Brigades, having lost the authority to perform ‘their job’ and concerned by the personnel selected for the Officer positions, led the charge in expressing ‘dissatisfaction’ with the new model (Kilmore Free Press 1945a). The Brigades indicated their willingness to work with the ‘right’ person in the Officers’ role, but lamented that often than not the ‘wrong’ person was employed by the CFA or the Municipalities (Gippsland Times 1945d). The ‘right’ person, it seems, was any senior Brigade figure or municipal employee familiar with local conditions as these ‘men on the spot’ were the ‘only ones’ considered capable of ‘do[ing] the job’, as they ‘knew the set up’ (Gippsland Times 1945d). ‘Invariably’, however, those who ‘had not been trained for the job’ were appointed (The Argus 1945e). Bizarrely, the CFA appointed Regional Officers and then sent them for training at a CFA-administered Regional Officers School, meaning that initially the Officer
did not have the ‘first and all-important qualification of experience in the prevention and extinction of types of rural fires, or in the use of Fire Brigade equipment’ (The Argus 1946c; Dandenong Journal 1945a). Given the ‘serious bush fires’ expected in the CFA’s second year of operation local opinion naturally held the view that it was ‘extremely dangerous to place the responsibility of organising and directing the brigades […] in the hands of [those who were] without previous experience’ (The Argus 1945d; Dandenong Journal 1945a; The Standard 1945a). These operational fears combined with resentment regarding the role of the Regional Officer generally, and the appointment of Officers without prior experience of bushfire-fighting, and thus constituted another source of unrest among Bush Brigades.

Given the Brigades’ pride in their voluntary contribution to protecting their communities from bushfire it is likely that any paid supervisory figure for the Brigades would have created tensions. The Proper and Regional Officers, however, were a target for Brigade hostility due both to concerns about the Officers’ competence for their roles, and their appearing to violate assurances that ‘all’ CFA funding would go towards improving the Brigades (Hooper in Gippsland Times 1945k). Victoria’s municipalities shared Hooper’s concerns. Council representatives described the £400 salary for Regional Officers as a waste, as ‘others’ were ‘evidently expected to do “the dirty work” [prescribed by the Officers] for nothing’ (Horsham Times, 1945b). An estimated ‘£43,000 [of £92,000 total funding]’ would be lost in ‘administrative costs’ in the first 15 months of the CFA’s operation, with this variously described as ‘wrong’, ‘wasteful’, and an ‘expense for nothing’ (Gippsland Times 1945c; 1945k; Kilmore Free Press 1945a). Worse, the Officers were to be reimbursed for their travel expenses and issued per diems; given the Brigades previous struggles to secure funding ‘for a length of hose’ this largesse was insulting to Victoria’s volunteer fire-fighters (Gippsland Times 1945c; 1945k; Marshall 1930, p.12-16). In response, the Brigades and municipalities argued it would ‘far better’ if the CFA transferred the Officers’ powers to ‘the local municipalities or […] a committee which knew the district’, and served voluntarily, to free up funds for fire managers to perform their role (Gippsland Times 1945d; 1945e; Kilmore Free Press 1945a). Others sought to improve the financial efficiency of the Officer system by reducing the number of personnel required. The Brigades considered it ‘absurd’ that 17 Regional Officers, as well as the Chief and Deputy Chief Officers, were needed to administer Rural areas, when nine personnel had been satisfactory for the Country Fire Brigades Board (Gippsland Times 1945c; 1945k). Hyland (in Gippsland Times 1945b) disagreed, and so the CFA’s ratio of Officers to Brigades was left unchanged.

What is interesting in the Brigades’ response to the Regional Officers is that it included a tacit acknowledgement of the need for better organisation for Brigades, and for better integration of central plans and local action based on a para-military model. The varying quality of Brigades in terms of equipment and ability – an issue that had been brought to prominence during negotiations of the CFA Bill – was a further testament to the need for enhanced both training of volunteers, and a new layer of management for Victoria’s fire
services (Murray & White 1995; The Argus 1944a; Kilmore Free Press 1945a; Portland Guardian 1945a). As with much of the CFA Act, then, it was the way that the Act was implemented and the state government’s intransigence in the face of criticism, as much as the Brigades’ loss of autonomy that was at the root of the unrest. Indeed, the Regional Officer scheme proved so successful that Alex Hooper, the previously militant Brigade representative, would later give a “‘lot of credit for getting CFA off the ground’” to the Regional Officers (Murray & White 1995, p.137). The CFA badly bodged by sending Regional Officers ‘into country areas with few specific instructions’ except for a ‘copy of the CFA Act’ and instructions to “‘preach the [CFA] gospel’”, but the Officers were a success (Murray & White 1995, p137). Like most of the problems of the CFA Act 1944 (Vic), then, giving the Act and the CFA fair go and accepting the need for more centralisation and better administration would bring about a change in the Brigades’ previously hostile attitudes. Tensions would occasionally flare between the Brigades, Municipalities and the CFA, including additional Brigade threats to resign from the CFA if their demands for concessions and amendments to the 1944 Act were not heeded after the 1945/1946 bushfire season. Fortunately, a relatively mild 1945/1946 bushfire season allowed for positive CFA-Brigade interactions to produce something like the goodwill necessary to work towards a constructive solution to these tensions, while the drafting of new, Brigade-friendly country fire legislation was facilitated by the Labor Party gaining control of the Victorian Parliament after John Cain Sr.’s election as State Premier.

4.6 ‘Time and Goodwill’: John Cain Sr. and the CFA Acts

It can be said that the CFA Act 1944 (Vic) stirred ‘antagonism’ among Brigades, municipalities and the CFA towards their bushfire management partners (e.g. Gippsland Times 1945c; 1945g). The CFA’s architects thought this unfair given the benefits that would accrue to all concerned were the CFA ‘given a reasonable chance to function’, as ‘time and goodwill’ would ‘knit’ the stakeholders together into a successful partnership (Hyland in Gippsland Times 1945c; Moyle in Horsham Times 1944a). Such confidence was admirable given the Bush Brigades’ being ‘most definite in their opposition to amalgamation with another body’ in October 1944, repeated threats to revolt in 1944/1945, the inter-brigade tensions, and the state’s refusal to consider amendments to the Act until 1946 (Cameron in The Argus 1944a). Given these issues it might be a stretch to suggest that ‘goodwill’ was the key factor in the CFA’s success; before getting to a stage where ‘goodwill’ could ‘knit’ the stakeholders together the state government and the CFA simply ignored stakeholder concerns, and thus created a good deal of enmity among other stakeholders. The terms of the CFA Act, though, meant that resistance to the Authority was gradually ground down. This can be seen in the shifting attitudes to Brigade protests in August 1945 (Gippsland Times 1945k; Horsham Times 1945a). On 6 August 1945 Hooper (in Gippsland Times 1945k) would repeat the Brigades’ ‘indignation’ over their treatment, yet by 21 August Brigades recognised that they were ‘at a dead end’ (Horsham Times 1945a). For the 1945/1946 fire season, at least, the
Brigades had little choice but to accept the CFA’s leadership to perform their cherished role as community protectors.

Politically the CFA’s first year was a ‘most difficult one’, but in terms of fire-related losses it was a success (Kilmore Free Press 1946a). With the Brigades cowed by the CFA and the state government the 1945/1946 bushfire season provided an opportunity to see the CFA function, with the mildness of the season leading to ‘cooperation’ between Brigades and thus to development of ‘goodwill’ towards the CFA (Daw in Barrier Daily Truth 1946a). Further, change in the political stream, specifically John Cain Sr.’s election as Victorian Premier, raised Brigades’ hopes that the new administration would be more sympathetic to Brigade concerns, and thus to improve the legislative framework guiding Victoria’s new bushfire management system. Outgoing Premier Dunstan had been known to ‘crack the [party] whip’ to ensure that Brigade-recommended amendments to the 1944 Act were rejected; in contrast Cain Sr. sought cooperative solutions to the ‘friction’ between stakeholders caused by the Act (The Argus 1944e). Thus, the Labor Party’s election allowed the Bush Fire Brigades to hope that ‘in the coming year the worst of [the Brigades’] troubles would be overcome’, as Labor (and Cain Sr. personally) had shown a ‘keen and intelligent interest in the [Brigades’] situation’ (Gippsland Times 1946a). This interest included better resourcing for Brigades and, perhaps more importantly, efforts to satisfy Brigade concerns regarding the lack of local autonomy in fire management.

The CFA’s efforts to improve the resources and equipment of Brigades matched Marshall’s (1930) earlier efforts to ‘beard’ unrestful Country Brigades by providing

of new equipment and facilities for fire-fighters. Daw (in Camperdown Chronicle 1946c) described the pre-CFA condition of some Bush Brigades as ‘shocking’, both in terms of its quality and the processes guiding procurement. Under the CFA Brigade equipment was both improved and standardised, as was Brigade training to provide a better-integrated fire-fighting system (Camperdown Chronicle 1946c). Cain Sr.’s commitment to improving Brigade equipment was best demonstrated by the purchase of ‘200 trucks at a cost of £40,000’ for the CFA in November 1946 (Riverine Herald 1946a; 1946b). These activities helped soothe Brigade concerns by demonstrating Cain Sr.’s intention to fulfil its commitment to placing rural fire-fighting organisations on the ‘best possible footing’, and ensuring that ‘those who fought to preserve the countryside were properly equipped for the job’ (Morwell Advertiser 1946e). These material benefits were accompanied by an amended CFA Act that sought to redistribute decision-making power back to the local level, and to clarify and extend legal and insurance protections for ‘causal’ fire-fighters (The Age 1946a). Together these inducements helped convince some Brigades that the CFA was ‘really the servant of the Brigades’, and thus provided a durable base for Victorian fire management (Daw in Camperdown Chronicle 1946c).
4.7 The CFA Act 1946

In the months leading to the amended CFA Act 1946 (Vic) Cain Sr.’s government announced plans for the transfer of ‘offices of departments related to rural and cognate interests […] to appropriate country centres’, with the CFA among the interests so decentralised (Shepparton Advertiser 1946b). This move was praised as an ‘immense contribution’ to country Victoria’s socio-economic vitality and fire-services, with Cain Sr.’s administration said to have ‘displayed a realism in refreshing contrast with the negative attitude of its predecessors’ (Shepparton Advertiser 1946b). Such praise draws attention to the role of changes in the ‘politics’ stream to policymaking; Cain Sr.’s government brought with it profoundly different definitions of problems, changed the constraints in the politics stream by altering the distribution and ideology of politically powerful actors, and considered different solutions to Dunstan’s government. The result was major change in policymaking including the passing of the 1946 Act and a commitment to offering ‘greater representation of brigades [sic] on the Authority’ that was clearly dependent on political change (Shepparton Advertiser 1946a). The Brigades’ representation to the centre would be facilitated through new ‘local and regional committees’ that would ‘work with Regional Officers [to] form an advisory body working closely in co-operation with the Authority’ to merge local problems and central plans though, as will be seen, these struggled to perform as expected (Shepparton Advertiser 1946a).

The Local Advisory Committees were made up of the ‘proper officer of the municipality, who [was] to be executive officer, a representative of each rural and urban brigade in the area, a representative of the municipal council and, where the land is contiguous to forest areas, a representative of the Forests Commission’ (CFA Act 1946 (Vic) (s.6)). Two representatives from each Local Advisory Committee together with an executive Regional Officer were to make up the central Regional Advisory Committee (CFA Act 1946 (Vic) (s.4)). These new institutions would, theoretically, go a way toward easing Brigade and municipal concerns regarding their limited ability to influence decision-making at the centre. In practice, though, the Committees had ‘neither executive nor actual powers’ to direct local fire management activities, and instead were required to submit recommendations to ‘Collins Street officials’ for approval (The Age 1947a; Camperdown Chronicle 1946a; Gippsland Times 1948a). Thus the new Local and Regional Advisory Committees did little to resolve the existing tension between local concerns and central plans in Victorian fire management. Despite the promised concessions to local actors made prior to the passing of the CFA Act 1946 (Vic) the issue was resolved in favour of more centralisation, albeit with an additional layer of management charged with identifying local issues and implementing central plans.

4.7.1 Officers, Committees and Communities
The *CFA Acts 1944 and 1946* (Vic) led local stakeholders\(^{34}\) to feel that they had ‘no say’ in fire management in their areas, as decision-making power was so much ‘in the hands of the Authority’ that ‘red tape’ prevented their being able to reduce local fire risk as needed (*Camperdown Chronicle* 1946c; *Cobram Courier* 1947a). The Proper and Regional Officers, and Local and Regional Advisory Committees, worked to resolve the tension between central standards and local needs but ultimately had limited powers to achieve this. Proper Officers were intended to hold executive powers to approve local hazard reduction actions proposed by Local Advisory Committees, while Regional Officers were promised authority akin to a “‘captain on a ship’” in coordinating the activities of the Regional Advisory Committees but both, in practice, required central approval for their proposals (*The Argus* 1945f).

The Local Committees’ reliance on the powers of the Proper Officer created a major problem for local fire management, as only 80 of 180 municipal councils had appointed such an Officer by September 1945 (*Horsham Times* 1945d). This was in part a result of local hostility towards the idea of a Proper Officer; the role was openly mocked during a Kilmore council meeting, where councillors queried the salary for the role and suggested it would be a ‘nice job for somebody’ (*Kilmore Free Press* 1945c). In a flawed attempt to maintain local autonomy other councils made a deliberate decision not to appoint an Officer in the hope that this would ‘strengthen the brigades’ position’ (*Horsham Times* 1945d). This line of thinking appears to have been based on the belief that if no Proper Officer existed there would be no central figure to tell the Brigades ‘what has to be done’, and thus empower the Brigades to act (*Camperdown Chronicle* 1945d; *Gippsland Times* 1947c). However, the terms of the CFA Act made the appointment of a Proper Officer ‘mandatory’, and were a council to refuse to appoint such an Officer the CFA would appoint someone to the role (*Horsham Times* 1945e). Of course, the CFA could ‘not compel anyone to accept the position’, and it was again argued that this loophole might strengthen local autonomy in fire management, or at least limit central control (*Horsham Times* 1945e). At the same time, though, if the councils did not choose their own Officer it was expected that the CFA-appointment might be someone that the ‘council [had] no control over’, and who might ‘interfere with matters vital to the council’, leading to a local belief that it would be better for councils to appoint their own Officer to avert this possibility (*Horsham Times* 1945d; 1945e).

The concentration of decision-making power in the Proper Officer likewise created unrest among the Brigades. The (paid) Proper Officers and the CFA were to direct Brigades and municipalities on what actions to undertake, with Brigades and municipalities expected to carry out the CFA’s ‘“dirty work” for nothing’ (*Horsham Times* 1945f). Unrest with these arrangements led to calls for the Proper Officers’ powers to be transferred to Brigade Captains, or for Brigade Captains to be appointed as Proper Officers (*Horsham Times* 1945f).

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\(^{34}\) The Brigades, municipal councils, residents, etc.
Local feeling was that either arrangement would have provided a more efficient means of managing local fire risk, as local actors would be empowered to ‘plan and take measures on their own particular problems’ (Morwell Advertiser 1946d). As there was ‘nothing standardised in fire prevention’ a locally-based, flexible system of authority vested in the Brigade Captain could allow for improved fuel management and fire prevention activities (Morwell Advertiser 1946d). It appeared to make good sense, too, to grant the Brigades powers to ‘say where [fuel breaks] were to be put in’ as they were excellent sources of local knowledge and, perhaps more importantly, the ones expected to ‘put out the fires’ (Camperdown Chronicle 1946c; Cobram Courier 1947a; Wodonga & Towong Sentinel 1946a). Instead the CFA maintained the arrangements set out under the 1946 Act, with the Committee-system considered sufficient to ensure that ‘each region gets practical consideration of its own peculiar problems [within] overall strategy,’ allowing for both locally-specific and ‘unified and planned direction’ for Victoria (Camperdown Chronicle 1946a; CFA Act 1946 (Vic); Farmer & Settler 1948a; Portland Guardian 1945a).

The powers granted the Regional Advisory Committees’ powers were similarly watered down after the passing of the 1946 CFA Act. Having been promised powers equivalent to a “‘captain on a ship’” Regional Advisory Committees and Regional Officers were just additional cogs in the new CFA apparatus (The Argus 1945f; Cobram Courier 1947a). To underline the Regional Committee’s subordinate position, they were required to ‘submit to the appropriate authorities recommendations and plans’ for fire management, and to ‘carry out such other functions as are conferred or imposed upon [them] by regulations made upon the recommendation of [the CFA]’ (CFA Act 1946 (Vic) (s.5)). As such the Regional Committees did not resemble Cain Sr.’s promise of devolution for responsibility for bushfire management to the local level, as they were hamstrung by red-tape and Officers’ concerns over their authority and competence to act (Shepparton Advertiser 1946b). These issues can be seen in a desperate call for the Regional Officer to approve local fire management activities at Shepparton, where fuel-reduction burns were required with the ‘utmost urgency’ during the 1945/1946 fire season (Shepparton Advertiser 1946c). Threatening fires meant that ‘any delay might cause serious damage’ to assets, and/or risk lives (Shepparton Advertiser 1946c). The Regional Officer’s eventual approval of the scheme would ensure that procedures were followed and the centre informed of local developments at the expense of an unnecessary delay in action. Had the Brigades been empowered to act unilaterally the delay between appealing to the Regional Officer and receiving permission to burn would have been removed, and thus the risk of ‘serious damages’ reduced.

A more farcical example of the red-tape created by the Regional Officer scheme involved Morwell council’s efforts to connect a water tank ‘with a [nearby] water [mains improvement] scheme’ to provide a supply of water for fire-fighting (Morwell Advertiser 1947a). Morwell council was invited by the Country Roads Board (CRB) to apply for CRB funding for the project, yet the Regional Officer declined because ‘government money could
not be expended as part of a private enterprise’ (Morwell Advertiser 1946d; 1947a). The Morwell Regional Officer’s position stood against that of other Regional Officers and state officials, as CRB funds were used in the ‘purchase and erection’ of two similar water tanks for Tyers (Morwell Advertiser 1946d). Morwell councillors also noted that other shires had used CRB money to ‘purchase drums, erect tank stands, etc.’ for fire-fighting (Morwell Advertiser 1946d; 1947a; 1947b). The different interpretations of the legislation and procurement procedures surrounding fire management undermined both the idea that the CFA Act had brought uniformity to Victorian fire management, and the promise that the Regional Officers would have the authority to implement fire prevention and mitigation schemes. Worse, the experience at Morwell went some way to souring local opinion towards the CFA. Morwell rate payers had contributed ‘some £400’ to the CFA, leading to a local feeling that ‘a portion [of this] should be diverted back to [the tank] scheme, which was definitely a fire-prevention measure’ (Morwell Advertiser 1947b). The scheme’s failure produced ‘disappointment’ locally that was directed at the CFA and the Regional Officer, and risked sparking tensions regarding the region’s affiliation with the CFA (Morwell Advertiser 1947a; 1947b). The fire-fighting equipment received from the CFA was considered ‘very inadequate’ given the region’s contribution to the CFA, and given Morwell Shire’s suffering ‘greater loss of lives and property in the fires of 1944’ than other, comparable Shires (Morwell Advertiser 1947a; 1947b). The Regional Officer’s concern with red-tape, then, cost the CFA a valuable opportunity to demonstrate its value to a community recently affected by fires.

The situation at Morwell is indicative of the multitude of actors and issues involved in Victoria’s bushfire management system. Though the CFA promised ‘unified and planned direction’ for Victoria’s fire problem it was only master of its own domain, and it could not control the policies or actions of other state departments (Portland Guardian 1945a). This was made most apparent through Bolte’s criticisms of the restrictions placed on Brigades by the CFA Act (The Age 1947c). Bolte considered it “absolutely farcical!” that the Brigades were not empowered to light fuel reduction burns without central approval while Victorian Railways Commission personnel were free to ‘burn breaks on a declared fire day [even] when they had only one man to try and stop the fire if it got out of control’ (The Age 1947c). The Brigades had the ‘best of equipment’ as well as the local knowledge and expertise to act independent of the centre, but were bound by the terms of the 1946 Act (Bolte in The Age 1947c). As a result, Bolte argued that the Brigades were being ‘frustrated at every point’, and pushed for Brigades to be ‘allowed to use their own judgement’ in fire management (The Age 1947c). However, devolving ‘more power’ to the local level was not in keeping with the CFA’s desire for coordination and control the Brigades were instead reliant on the direction and approval of central figures (The Age 1947c).

35 Henry Bolte, Liberal Member for Hampton.
The Local and Regional Advisory Committees were intended to reframe fire management as a ‘thoroughly decentralised’ activity but fell short of this in practice. The CFA recognised the need to have the ‘full support of every individual resident in town and country’ for effective fire management but, through the fumbles with the Local and Regional Advisory Committees and restrictions on Brigades’ powers, undermined local support for the CFA (Gippsland Times 1946b; see also Stretton 1944 for discussion of the relationship between civic satisfaction and engagement in fire management). In 1948 a further amendment to the Local and Regional Advisory Committees was proposed as part of the CFA’s “Operation Decentralisation”, but this again fell short of local control for fire management decisions. The changes made to the Local Advisory Committees, for example, are not strikingly different to the arrangements prevailing under the 1946 Act, with the constitution of the Committees and their intentions described by Farmer and Settler (1948a) as made up of:

- representatives from every fire brigade, their respective Municipalities, and from local councils, plus the district Forest Officer and Municipal Proper Officer […] these local committees are ideally suited for seeing to it that each region gets practical consideration of its own peculiar problems when the overall strategy is reviewed as CFA Headquarters in Melbourne.

Daw (in Farmer & Settler 1948a) described how the Local Committees would ‘complete their surveys of the bushfire problem as it is likely to affect them [and then] send representatives to the Regional Advisory Committee who are thus enabled to make a practical, workable anti-bush-fire plan for the whole region’. These arrangements differed little to the powers of the Local Advisory Committees as conferred under the 1946 Act, leading to uncertainties of the extent that the Local and Regional Committees and their respective Officers allowed for the ‘thoroughly decentralised’ approach to fire management that had been promised under the CFA (Morwell Advertiser 1947a). Under the terms of the CFA Act 1946 (Vic) (s.7) the Local Committees’ powers and responsibilities were restricted to planning, recommending and advising the CFA through the Regional Advisory Committees, rather than producing the kind of local autonomy in decision making that had been expected during the re-negotiation of the CFA Act.

4.8 A ‘Thoroughly Decentralised’ System?

Striking a balance between local autonomy and central control and coordination was a difficult task for the CFA that, generally, favoured the latter. The Local and Regional Committees and their respective Officers were an indication that the CFA recognised the need to incorporate the local into fire plans, but their effectiveness was undermined by their
being a centrally-mandated position with limited executive powers. The result was the introduction of red-tape that soured local feeling towards the new arrangements for fire management. This red-tape and fears of ‘making a mistake’ led some Officers to prefer ‘‘passing the buck’’ and/or ‘not [doing] a job at all’ to minimise rebuke for errors such as a fuel-reduction burn escaping containment (Alexandra and Yea Standard and Yarck, Gobur, Thornton and Acheron Express 1948a; Benalla Ensign 1948a; Daw in Kilmore Free Press 1947a). Further, local misunderstanding of the relevant processes coupled with this red tape led community members to seek the permission and/or assistance of local Brigades for fuel-reduction burning, creating a confused chain of authority and, ultimately, hindering the fuel management effort by overwhelming the ill-equipped and disempowered Brigades (Alexandra and Yea Standard and Yarck, Gobur, Thornton and Acheron Express 1947a; Benalla Ensign 1948a; Cobram Courier 1947a). The Officers themselves were often under-resourced or over-worked, with some Shires questioning the appropriateness of having a single Proper Officer given the size of the local area or high risk of fire (Cobram Courier 1947a).

On paper, at least, the new approach was simple. Per the CFA Act 1946 (Vic) the Brigades were expected to report ‘direct[ly] to the Proper Officer any hazards they desired dealt with’, and to receive permission before acting (Morwell Advertiser 1946d). The combination of poor understanding, red-tape and limited resources therefore confused the ostensibly clear fuel-reduction burn process and meant the benefits of the new approach were not clear to residents. In line with a militaristic ‘commitment to failing courses of action’ common in emergency organisations (see Takeda & Helms 2006 p.209), senior CFA figures sought to emphasise the benefits of the new approach rather than address its problems. Daw (in Kilmore Free Press 1947a), for instance, praised the new system for removing the ‘need for country people to refer their fire problems to Melbourne’. The Local Advisory Committees and Proper Officers, together with residents and Brigade members, had the ‘intimate knowledge of local conditions and problems’ necessary to ‘deal speedily with all local matters’ (Daw in Kilmore Free Press 1947a). In practice, however, any local activity would be hindered by deficient local resources and understanding of the law, and heavily influenced by the requirements of the centre, leading to questions as to how far Cain Sr.’s promised ‘thoroughly decentralised’ approach to fire management was carried in practice (The Age 1947a).

The limited decentralisation of responsibility was partly the point. Local and Regional Advisory Committees were established to fit central plans into local conditions, to ensure that recommended work was carried out and, above all, to abide by the CFA’s prescriptions. Fire management and the Brigades were now state-funded, with the CFA and its constituent personnel intended to ensure that centrally-agreed best-practice and works were properly implemented at the local level. Senior CFA personnel argued that the Authority was ‘not brought into existence to make it easy for all and sundry to burn off when and where they
chose with immunity from consequences’ (Galbraith in *Gippsland Times* 1947a). The lack of control on burning and tacitly-acknowledged immunity imposed on pre-CFA fire management by limited resources and a fragmented legislative framework had been a notorious source of fire danger, not least during the 1939 and 1944 fire seasons that saw Stretton (1939; 1944) serve as Royal Commissioner (see also SEC 1944a). Thus CFA was intended to reduce careless or malicious fire-lighting, and to better manage Victoria’s fire prevention and suppression activities, rather than as a ‘thoroughly decentralised’ method of managing Victoria’s fire risk.

For Galbraith, it was apparent that ‘[m]ost reasonable people […] recognised that without some such [strict, bureaucratic] system there would be no control at all over the lighting of fires’, and thus the constant risk of another spate of catastrophic fires like those that marred the period 1926-1944 (*Cobram Courier* 1947a; *Gippsland Times* 1947a; 1947b). Nor were senior fire managers – many military or ex-military – particularly convinced of community-capacity to carry out such activities to the CFA’s standards. *The Argus* (1945f) noted ‘most’ Regional Officers were ex-servicemen, while *The Argus* (1945d) and *The Standard* (1945b) claimed that prior military service, rather than fire management experience, was the primary criteria used to recruit Regional Officers (see also *The Age* 1946a). Daw (in *Alexandra and Yea Standard and Yarck, Gobur, Thornton and Acheron Express* 1948a) rebuked shires for having not performed sufficient ‘preventive work’, and threatened ‘compulsion’ to ensure that proper work was performed. Shires would plead poverty either in terms of guidance from CFA personnel or in terms of their resources to perform the necessary fuel management; the latter, admittedly, was a valid excuse. Under the established methods of lighting fuel-reduction burns the area that could be successfully treated was low and, given the size of Victoria’s fire-prone area, only a small proportion could be treated annually (Luke 1961; Pyne 2015). Here centralising and formalising local fire management under the CFA would offer an undoubted benefit to local activities.

By being made the responsibility of the state, and responsible to the state, Victoria’s Brigades were about to enter a period of financial largesse that was unthinkable in the old Bush Brigade days, as this influx of capital served both to improve Brigade equipment and to stimulate scientific research and development of more effective fire management techniques and technologies. The result would be the novel re-purposing of existing methods and equipment to provide a solution to Victoria’s problem of fuel-reduction burning: fires deliberately lit from the air. This major technological advance, together with the long-term trend of technologization in fire-fighting had profound effects on the fire management roles and responsibilities of both Victoria’s fire services and the community. These can be summarised as increasing the complexity of the fire-fighter role, requiring yet-more training and military-like, centralised organisational and operational control. The result was a significant increase in fuel management activities and a reduction in the usefulness of

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36 H. Galbraith, CFA Chairman and holder of a Diploma in Forestry.
untrained residents to organised fire-fighting activities. A further effect was to create public hostility to the ecological damage associated caused by seemingly indiscriminate fuel-reduction burns. To maintain thematic focus the next section will focus on the effects to Victoria’s fire services only, with the parallel effects on the community considered in chapters 5 and 7.

4.9 Science, Technology and Bushfire Management

The centralising of fire management functions under the CFA represented a ‘change of heart’ in the state’s understanding of its role in bushfire management (Brennan 1979, p.93). Historically the state had done ‘little or nothing’ in fire management; laws relating to fire prevention and mitigation had been poorly enforced due to the limited resources and legislative powers provided to relevant actors. The complicated distribution of responsibility for fire prevention and mitigation pre-CFA, where powers were shared by the Lands Department, Brigades, SEC, Railways Commission and Forests Commission, among others, prevented the kind of ‘general plan’ for fire management recommended by Stretton (1939; 1944). By concentrating fire management responsibility within the CFA, and using the local apparatus (e.g., Local and Regional Advisory Committees) to transmit local concerns to the centre, the CFA raised the prominence of the fire problem on Victoria’s governmental agenda, with this manifest in greater investment in bushfire-related technology and research, and a sharp increase in the complexity of both fire management and fire-fighting. To ensure the CFA’s volunteers were able to properly utilise the technologies and principles developed it was necessary to increase the requirements of training, and to adopt an even-more militaristic approach to organisational and operational procedures to effectively coordinate and control the CFA’s activities.

The Victorian state and Australian Federal Governments’ investment in fire research and equipment reflected the growing vulnerability of people and property in fire-prone areas, and the need to provide both protection and demonstrate efficiencies and effectiveness in the use of public monies. The result was that ‘fire research […] became inextricably interconnected’ with Australian fire management (Pyne 2015, p.350).

The catalyst for combining research and fire management was partly a result of concerns about public safety, partly due to fears of enemy nuclear attack, and partly due to the state’s need to be financially accountable to the public (Canberra Times 1968b; 1969d; 1980b; Rodger 1961). The public safety element followed from Rodger’s (1961) Royal Commission into the 1960-1961 Western Australian bushfires, where the effectiveness of a centrally-organised, state-wide system of fuel-reduction burns in reducing fire-related losses was put under scrutiny by losses during the 1960/1961 bushfire season. The Commission agreed with
its experts, including McArthur\textsuperscript{37}, that there was a relationship between fire severity and spread and local fuel conditions. Pyne (2015 p.337) described the Rodger Commission (1961), and McArthur’s contribution, as demonstrating that ‘programmed [controlled] fire [for fuel reduction] was the only effective means of fire control in Australia’, and this finding would become the basis of the ‘Australian strategy of fire protection’. The legacy of the Rodger Commission (1961) would draw other scientific studies of bushfire into prominence, particularly where they verified the relationship between local fuel conditions and fire spread and intensity (e.g., Hodgson 1968; Luke 1961; McArthur 1968). Hodgson (1968 p.601), for example, found that a ‘[d]oubling [of] the available fuel usually doubles the rate of spread of the fire and increases its intensity fourfold’. McArthur (in Pyne 2015, p.361) argued, therefore, that if Australians continued to ‘learn from fire, they could fight it’, as were they to work ‘systematically’ fire managers could ‘wear [fire] down and beat it in the end’. This bold claim was later mitigated by Luke and McArthur’s (1978 p.245-246) contention that practicable fuel management might not reduce losses in circumstances where many ‘simultaneous outbreaks [occur] in severe weather conditions’, but Luke and McArthur maintained that fire prevention and mitigation, as well as successful fire-fighting, depended on reducing the available fuels.

The need to reduce local fuel loads had, of course, long been recognised by fire managers. Victoria’s Forests Commission and Brigades had struggled to successfully reduce fuel loads due to their limited resources, the Brigades’ volunteer status (and lack of effective powers pre-CFA), and local meteorological and topographical conditions that were unfavourable to large-scale burning (Pyne 2015). As with the problem of organising Brigades, the solutions to the fuel management problem came from World War Two. World War Two had forged closer links between military and emergency service organisations, with the military willing to sponsor and support experiments and research into disaster in the expectation that the conclusions drawn from such research were applicable to military activities (Canberra Times 1968b; 1969d; Dynes 1983; 1994; Quarantelli 1987). Quarantelli (1987 pp.294-298) described this as the ‘doctrine of dual-use’, and the collaboration between these services produced mutual benefits in Australian bushfire management. In the 1960s the Australian, British and American militaries funded research into the potential ‘[m]ilitary use of bushfires’ in Australia, with ‘[m]ass fires’ considered analogous to the ‘damage […] caused by nuclear explosives’ (Canberra Times 1968b; 1969d). The risk of such an attack in the context of the Cold War made the ‘study of offensive and defensive measures’ against nuclear attack, and incidentally against bushfire, ‘urgent’, with CSIRO active in designing programs and conducting analysis in this area (Canberra Times 1969d). As a corollary to the nuclear-attack focus, bushfire managers were provided with additional data on the relationship between fire spread, severity and fuel-loads, as well as improvements to local fire management infrastructure such as helipads and runways (Canberra Times 1968b; 1969a; 1969d). These

\textsuperscript{37} Alan McArthur, former member of the Forestry Commission of New South Wales, member of the Commonwealth Forestry and Timber Bureau, and later principal research officer in CSIRO’s forest research department.
new forest-based airbases, together with a windfall of ex-military equipment, led to a ‘revival of interest in aircraft’ and their potential uses in disaster management in Australia (Pyne 2015, p.345). Experiments in aerial fire suppression found the method ‘ineffective’ in the Australian context due to it being ‘not practicable’ due to ‘expense’ and logistical issues (Canberra Times 1969c; 1969e). Aerial fire suppression was estimated to cost ‘up to $200 an acre in application’, while the lack of easy access to water in Australia’s fire-prone areas (relative to America) made the approach unsuitable (Canberra Times 1969c; 1969e; 1981b; Pyne 2015). The experiments in broad-burning of forest and bush areas to simulate nuclear attack and infrastructure provided for such experiments combined with the earlier findings made regarding the relationship fire and fuel conditions suggested a new, efficient and effective solution to Victoria’s fuel management problem: the use of aircraft to ignite fires in the bush, and thus burn large areas (and reduce fuels) more efficiently than was possible through the traditional, resource-intensive approach of lighting fires by hand.

### 4.9.1 Aerial Fire Management

Victorian bushfire managers had recognised the benefits of partnership with the Royal Australian Air Force since the 1920s, with the two collaborating to improve logistical services to fire-grounds, and reconnaissance of fire spread (Pyne 2015). Luke (in Canberra Times 1965a) had earlier considered that the “greatest contribution to success in fire protection [could] only come from a complete programme of fuel reduction”; where this was carried out in an ‘orderly, integrated and scientifically based’ manner it could form the ‘foundation of fire protection’ (Luke in Pyne 2015, p.353). At the same time Luke (in Pyne 2015) and McArthur (in Canberra Times 1969e) recognised the limitations on this strategy produced by ‘insufficient manpower’ and the topographical and meteorological barriers to prescribed burning as a fuel management tool that were particularly problematic for Victoria. The result was ‘timid’ forecasts of annual areas that could be ‘treated’ through prescribed fuel-reduction burns (Luke in Pyne 2015; McArthur in Canberra Times 1969e). The combination of the idea of aerial fire-ignition with developments in fire science vis-à-vis fire intensity, spread and fuel conditions in the ‘policy’ stream provided a viable solution to the financial and technological constraints in the politics stream. As will be seen in chapter 7, however, it was not able to overcome the public opinion constraint, and thus the policy’s effectiveness was hindered. Regardless, McArthur (in Canberra Times 19693) estimated that the use of aircraft could produce ‘burning of two million acres of forest a year’ in Australia. Indeed, the increased use of aircraft after CSIRO (in Canberra Times 1969c) confirmed the Rodger Commission’s (1961) arguments, and associated works of Rodger (1961), Luke (1961) and Hodgson (1968) allowed for the annual area treated through fuel reduction burns to exceed the area burnt by bushfires for the first time in the mid-to-late 1960s, as can be seen in image 3 below.
The practical benefits of this approach were recognised in fire outcomes, with *Canberra Times* (1968a) reporting that losses resulting from the 1967/1968 fires were ‘perhaps one-tenth of what [they] might have been’ due primarily to aerial fuel-reduction burns complemented by other technological advances made in post-war fire management. The heavy investment of the state in fire-related equipment from the 1940s onwards saw, for instance, £396,196 spent on equipment between 1945 and 1953 (*Kilmore Free Press* 1953a). Sinclair38 would brag that while ‘businesses, councils and companies found that money was tighter today, the Country Fire Authority was far from short of funds and had a five-year plan to build up their equipment pool’, including a commitment of £66,000 for both 1951/1952 and 1952/1952 (*Benalla Ensign* 1952b). These funds allowed for the research and evaluation of many ‘innovations in fire-fighting’ that helped in reducing fire-related losses (*Canberra Times* 1968a).

At the centre of the mid-20th century successes in fire management was the reduction in fuel loads made possible through aerial fire ignition. However, the area burnt in Victoria was still short of the area recommended. Pyne (2015) suggested that 6-7 per cent of Victoria’s forests and bush area could be burn annually were aerial and ground-based fuel management activities properly coordinated but, as indicated in Rawson and colleagues’ (1985) report for the Victorian Department of Conservation, Forests and Lands, the annual average area burnt between 1974 and 1984 was only three per cent. These deficiencies were due to technological, political and socio-cultural and demographic pressures. The state’s patronage of bushfire research and resources dried up in the late 1970s and early 1980s, except for Project Aquarius. Project Aquarius – a three year, $3.2 million CSIRO program of fire research – was principally designed to compare the ‘cost-effectiveness of large air tankers with that of

38 G. Sinclair, CFA’s Chief Secretary.
conventional bushfire suppression techniques in Australia’ (Miller et al. 1984, p.115). It was the ‘exception’ in bushfire research programs in the 1970s and 1980s, as other programs did not receive ‘high priority in the allocation of funds and resources’ (Milton et al, 1984 p.31). Disputes between the state and Federal government over the provision of necessary aircraft meant research and resourcing was ‘lost in a ministerial and departmental shuffle’ (Canberra Times 1980b). Perhaps with a degree of self-interest Canadair, the maker of the CL-215 plane that was the states’ first choice for aerial fire management, lamented that ‘bureaucratic hesitancy’ would mean that Australia’s ‘largely volunteer bushfire-fighting organisations will be denied the support of what [Canadair believed] to be a major breakthrough in fire-fighting technology’ (Canberra Times 1980b). Canadair (in Canberra Times 1980b) publicly rebuked the states to encourage the states’ to pressure the Federal Government as:

a lot of fires [in Australia] now are taking place on the fringes of developed areas where a lot of people are starting to build homes. The State authorities let them build in the bush but never try to provide adequate fire-fighting services.

As aerial fire management and associated research had proved of great benefit to Victoria’s bushfire management it is necessary to consider the factors that led to the stalling of state-support for aerial methods of fire management. Publicly, the restraining of aerial fire management funding was due to a ‘cost-benefit analysis of bushfire-control methods’, though ‘industry experts’ describe the move as a ““political stunt”” (Canberra Times, 1981b). Considering the extent public opposition to aerial fire-ignition on the grounds of ecological conservation, which is described in chapter 7 so as to maintain focus on the effects of technologization on the CFA, it is likely that both factors were in play; the government did not consider that aerial fire suppression represented an effective investment in Victoria’s fire problem, and thus performed a ‘political stunt’ qua an attempt not to invite public unrest by supporting an unpopular policy (Canberra Times 1969c; 1969e; 1981a; 1981b; 1981d).

That fire policy was now receiving such attention at the Federal level underlines the transformation of fire management under the CFA. A greater role for the state and technological advance meant that the 1950s through 1983 can fairly be described as ‘good years for the CFA’ in terms of reduced fire-related losses (Murray & White 1995, p.255). Fuel management, the foundation of Victoria’s new fire management strategy, was performed at a rate unthinkable under pre-CFA conditions. The incorporation of aerial fire ignition techniques meant that substantially more forest- and bush-land could be burned annually to reduce the risk of major fires in the state. In the five years leading to Black Friday 1939 the annual average area subject to ‘patch’³⁹ burning was 118.61km², against an average of 2,245km² per year between 1974/75 and 1983/84 (FCV 1935a-1939a; Rawson et al. 1985).⁴⁰ Similarly, the annual rate of expenditure on Brigades was massively increased after

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³⁹ Where parts of the landscape are treated so as to create a ‘patchwork’ of burnt and unburnt areas, and thus create firebreaks.
⁴⁰ Annual areas treated in the former period varied from 25.09km² in 1934/35 to 275.19km² in 1938/39.
centralisation under the CFA. Relative comparison is difficult due to inflation and similar problems in comparing currencies across time periods, as well as limited data on Brigade funding, but the archival materials provide a potential source of comparison. After Black Friday, the Victorian Bushfire Brigades Association estimated that the movement ‘urgently’ needed £1,000 to ‘bring the equipment of the various Brigade up to date’, while the Brigades held £100,000 worth of assets immediately prior to the passing of the CFA Act 1944 (Vic) (The Argus 1939p; Gippsland Times 1945j). In the early 1950s the CFA Brigades were receiving £66,000 annually, and had received £396,196 between 1945 and 1953 (Benalla Ensign 1952b; Kilmore Free Press 1953a). Over the next three decades millions of dollars were spent on bushfire research, fire-fighting equipment, and in supporting the Brigades’ training and operational activities. Rigorous, military-style training was drilled into volunteers to provide them with the skills necessary to make use of advanced fire-fighting equipment, and to ensure conformity with centrally-defined plans and procedures. Together, these factors underline how far fire management had developed since the earliest shoots of organising for fire in the 1850s, and the considerable achievements made through centralising and militarising Victoria’s fire services, and the associated effects of technologization. It was accepted that Victorians needed to avoid a complacent, ‘comfortable belief that modern techniques [had] brought the [bushfire] menace under control’, as it was ‘impossible to ensure the tinder-dry forests against the spark of a match’, but there was a clear hope that through a combination of fuel management and improved Brigade functions ‘every outbreak can be extinguished before it has run riot’ (The Age 1962a).
4.10 Conclusion: Centralisation, Militarisation, and Technologization

The preceding chapters have provided an overview of the ‘story’ of the development of Victoria’s volunteer fire services. The transformation of militias into autonomous, locally-based groups concerned with fire, and then into a well-trained, state-organised service was a gradual process that reacted to major fire events, or a spate of fire-related losses, by plucking military-informed ideas from the policy primeval soup.

The Country Fire Authority (CFA) followed the organisational and operational basis laid by the wartime ‘G’ Committee and the various Civil Defence organisations created to meet the needs of war in emphasising central planning and coordination, a high standard of training for members, and improved equipment to properly respond to fires. The Brigades had long held a military-like model as a paradigm for organising individual Brigades, but had eschewed the kind of centralised governance structure that allowed for effective planning and direction by the military services. World War Two forced Victoria’s emergency and military services into more sustained collaboration than had occurred under the previous, ad-hoc suppression-based collaboration precipitated by major fires, and as such demonstrated the effectiveness of central control of the Brigade movement. This was achieved through the unified direction of the various military and emergency services provided by the wartime ‘G’ Committee, where collaboration was fostered in fire prevention, mitigation and suppression. The result was a greater emphasis on militarism in fire management, where the Brigades’ annual efforts to fight fires were recast as a ‘battle for Victoria’ against a bushfire enemy that was to be planned and directed from the centre by the CFA (The Age 1944c; Horsham Times 1942a; Murray & White 1995, p.113; Riverine Herald 1943a).

In accordance with this military metaphor Victoria’s bushfire management strategy saw a transfer of decision-making powers from the local to the centre. This was not in and of itself antithetical to the Brigades’ values. The Brigades accepted Stretton’s (1939) recommendations of a new central structure, and had indicated their willingness to work under the Forests Commission due to the previous good relationship between the bodies (The Argus 1944a; FCV 1939a; Kilmore Free Press 1944a). Concerns were raised, however, about the makeup of the CFA’s Authority. The CFA Act saw the Brigades hold only two seats on a board of ten, alongside two representatives each from the Minister of Forests; Rural Fire Brigades’ Association;41 Urban Fire Brigades’ Association;42 Fire and Accident Underwriters Association of Victoria; and the Municipal Association of Victoria (one representing urban

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41 The re-branded Victorian Bush Fire Brigades’ Committee.
42 The re-branded Victorian Country Fire Brigades’ Board.
areas, the other rural areas) (CFA Act 1944 (Vic) (s.6). When compared to the Bush Fire Brigades’ Committee as constituted under the 1933 Bush Fire Brigades’ Act, where the Brigades held two seats on a board of five (with two other seats held by the generally friendly Forests Commission), Brigades’ influence was clearly diminished. Worse, all appointments to the Authority depended on the approval of the Governor in Council, meaning that Brigade nominees could be, and, in the case of Daw’s selection as Chief Officer, were prevented from sitting on the Authority, and that the selection of senior personnel was no longer under the control of the Brigades. The result was that the Brigades, who had shown their ‘sincerity in the cause of fire suppression’ during the Black Friday bushfires, were, against Stretton’s (1939, p.27) advice, ‘placed under the authority of a stranger’.

The creation of the CFA therefore led to tensions with ‘bush’ stakeholders, with Bush Brigades and municipalities aggrieved by their diminished role in decision-making in bushfire planning. Fears of a ‘takeover’ of bush fire-fighting by urban interests, ‘remote from the business of fighting local fires’ and ignorant of the principles that had moulded the Bush Brigade movement (The Age 1944a; The Argus 1944b; Murray & White 1995, p.121). The previous indifference of the state in the Bush Brigade movement, typified by the Country Board’s initial indifference to the problem of bushfire, including the Board’s refusal to sanction bush brigades, meant that bushfire-fighting had been built on autonomy, localism and volunteerism (Murray & White 1995). The centralising of fire management, even with the Local and Regional Advisory Committees and Proper and Regional Officers, was considered an ‘encroachment’ by the state into a local affair that ‘went too far and was not the right way to prevent fires’ (Gippsland Times 1945e). The ‘ruggedly independent’ Bush Brigades feared being ‘swamped’ by an executive that did not understand the Brigades movement and became ‘suspicious’ of the new centrally-led arrangement (The Age 1944a; The Argus 1944b; Murray & White 1995 p.121). These concerns were not eased by the less-than-conciliatory attitude adopted by senior politicians (especially Lind), the architects of the CFA Bill (e.g., Herbert Hyland43), nor by the selection of non-Bush Brigade personnel for senior positions in the new Authority (e.g., C. A. Daw), with unleashed ‘enormous passions’ among the Brigade movement, as Brigades ‘clung to [their] independence’, and sought to oppose any threat (perceived or real) to their autonomy (Murray & White 1995, p.118).

This local opposition did not dissuade the Victorian state government, whether under Dunstan or Cain Sr., of the need for greater legislative controls over Bush Brigades. When the CFA gained responsibility for the inspection and training of Bush Brigades it was found that some Brigades were ‘lax’ in their training, and/or under-resourced in relation to the local fire danger (Camperdown Chronicle 1946c; Murray & White 1995, p.106; Portland Guardian 1945a). The terms of the legislation pertaining to Bush Brigades prior to 1944 (i.e., the Bush Fire Brigades’ Acts 1933 and 1939 (Vic)) had left the Brigades responsible for their own inspection and resourcing decisions. As indicated above, some Brigades could mobilise

43 Chief Secretary of the Country Party and Minister in Charge of the CFA Bill.
local resources to provide a good service to their communities, while others were severely deficient. Under the CFA these local powers became central responsibilities, with the result that all Brigades were now subject to the same military-level of training and discipline. The handover was necessary on the basis both of accountability, as the Bush Brigades were now to receive public monies, and in terms of the state government’s wider plans for fire-prone areas. The transfer of power was resisted by some local actors but, ultimately, this opposition did little to divert the developmental pathway of Victoria’s fire services that was to emphasise centralisation and formalisation as the foundations for fire protection.

Greater centralisation allowed Victoria’s fire managers to accept fire management lessons learned in other states, and to practise them at the state level. This was most apparent in Victoria’s following the example of fuel-reduction burning laid down by Western Australia. That controlled burning could serve as an efficient and effective means of reducing fire risk had been underlined, and confirmed, by the Rodger Commission (1961) into the 1960/61 Western Australian bushfires. Prior to the fires Western Australia had emphasised fuel reduction in its fire management strategy, with the burning of over 1,500km² and destruction of more than 130 buildings called into question the approach (COAG 2004; Pyne 2015). The Rodger Commission (1961 p.7), and subsequent works by the Commission’s technical staff (e.g., McArthur 1968; Luke & McArthur 1978), however, maintained that the ‘destruction by fire, during the less dangerous times, of all inflammable hazards’ in forests and bush areas through controlled burning was the only effective means to reduce fire-related losses (see also Pyne 2015). Luke and McArthur (1978 p.245-246) explained the failure of controlled burning in Western Australia in the early 1960s resulted from too many ‘simultaneous outbreaks in severe weather conditions’, and cited the potential for yet-more fuel reduction to reduce the risk of such a recurrence. The means to achieve this in Victoria, where ‘insufficient manpower’ together with local meteorological and topographical conditions made controlled burning difficult, was provided by 1960s experiments in the use of aircraft as a source for fire ignitions (McArthur in Canberra Times 1969; Pyne 2015). This new technique provided an efficient and economical alternative to the previous practice of fuel management, and thus allowed for the vast increases in annual areas burnt (VLA 2010).

The ability of Victoria’s fire managers to incorporate aerial fire ignition into its fire management strategy depended on the support of the state and Federal governments. Access to government funds, as well as central financial management and procurement, provided Victoria’s Brigades with funding far more than that enjoyed in the pre-CFA era and thus access to resources and technological and scientific advances unthinkable to the early volunteer brigades. Again, though, this came at the expense of initial unrest over the lost local autonomy and perceived unfairness of the levies imposed on local communities under the CFA. These concerns were quietened as the CFA-era progressed and the financial and operational benefits of centralisation became clear. The earliest evidence of such benefits – the windfalls of military surplus and pooling of Country and Bush Brigade resources in the
1940s – continued into the 1950s. The support of the state government and the CFA’s shrewd financial management allowed the CFA’s Authority to boast that while ‘businesses, councils and companies found that money was tight [in the 1950s], the CFA was far from short of funds and had a five-year plan to build up [Brigades’] equipment’ (Benalla Ensign 1952b; Pyne 2015). This was, in part, a result of the state government’s enthusiasm for the CFA. Dodgshun\(^{44}\) noted that the Victorian state government had ‘never refused the Country Fire Authority any request for equipment or any services’, despite the state’s difficult financial position (in The Argus 1952a). Along with the Federal government’s multi-million dollar investments in fire-related equipment and research it is fair to say that the period between the CFA’s founding in 1944 and the 1983 Ash Wednesday bushfire was made up of ‘good years’ for the Authority, and for Victorian fire management (Murray & White 1995, p.255).

Comparison is difficult due to ‘sketchy and incomplete’ records of fire-related losses prior to the 1926 Black Sunday bushfires, but it can be said that fewer than 50 people died in this near-half century of the CFA’s rule, as compared with over 200 in the 20 years preceding the CFA (COAG 2004; Miller et al. 1984 Annexure ‘G’). These successes, however, obscured Victoria’s growing vulnerability to fire that was being increased by socio-economic and demographic change in fire-prone areas, and shielding the dominant assumptions guiding Victoria’s bushfire management strategy from the growing criticisms of an asset-protection, rather than vulnerability-reduction, frame for the problem of reducing losses during disasters.

\(^{44}\) Keith Dodgshun, Victorian Chief Secretary.
Chapter 5: Responses to Redefining Disaster

This chapter considers the implications of the poor integration of increased community heterogeneity in the 1960s-1970s into disaster planning and management, which is linked to the principles and assumptions guiding disaster-relevant organisations. This chapter, the preceding and the following are somewhat porous in their analytical focus, in that each considers how technologizing, centralisation and militarisation affected Victoria’s bushfire management strategy. The preceding considered the organisational and operational effects of these developments on Victoria’s fire services, while this chapter focuses more on their effects on the philosophy and assumptions underpinning Victoria’s fire management strategy, and the subsequent chapter their effects on the community’s roles and responsibilities.

The theoretical and practical reasons for adopting militarism as the paradigm for disaster research, and disaster-relevant theory and practice after the Second World War have been explored above (see p.45-49, this thesis). Briefly, ‘conventional wisdom’ in America held that Soviet attack, possibly with nuclear weapons, was the greatest threat to the country’s population and national security and this conditioned the ‘core assumptions’ that guided post-World War Two disaster planning and management theory and practice (Dynes 1994, p.142; Quarantelli 1987). Using this enemy-attack problem frame the American government and military supported research into expected public ‘behavioural responses’ to an emergency, and the ‘organisational requirements’ for mitigating both the emergency and negative behavioural responses (Dynes 1994, p.142; Schneider 1992). The public’s expected behavioural response was one of panic, borne of ignorance of ‘safe’ responses to the emergency, and the panic and disorder of the immediate post-emergency period suggested a heavily planned, bureaucratic organizational form was best suited for responding to both issues. America’s financial and human capital investment in Civil Defence organisations during the Second World War produced both the organisations and ‘air-raid wardens, first-aid workers, rescue squads, auxiliary medical personnel, decontamination squads, auxiliary policemen [and] firemen and aircraft spotters’ necessary to meet the threat of Soviet attack (Cooling 1971; 1972; Mauck 1950, pp.266-267). These organisations and personnel, as well as military and ex-military personnel, served as the foundation for disaster-relevant organisations after the Second World War. As an added bonus, the doctrine of dual-use implied that social control and a para-military organisational form were as appropriate for military as for disaster or technological emergencies, which led to the adoption of Civil Defence and Command-and-Control as guiding principles for disaster-relevant organisations in the 20th century. America’s early investment in disaster research, compared with the more practical and operational focus adopted in other countries, established America as a global leader in disaster as a discipline and led the American model to be exported to other countries (Dynes 1983; 1994; Quarantelli 1987; 1998a; Quarantelli et al. 1986).
The conventional wisdom and core assumptions that underpinned the para-militarisation of disaster research and planning and management were challenged from the 1960s onwards, as focus shifted from practical concerns of disaster impacts and axioms of public panic to ontological and epistemological questions of disaster. The shift followed from the development of new groups of disaster-focused researchers in the social sciences outside of the influence of the military, and the freedom to challenge the military’s central role in disaster planning and management. Barton (1969) was an early proponent of a more social-systemic view of disasters that challenged the ‘Acts of God’ view of disaster (Clausen et al. 1978, pp.61-62). Rather than being emergencies being ‘Acts of God’ that communities and disaster-relevant organisations could ‘only react’ to, Barton (1969) and later Clausen and colleagues (1978 pp.61-62) argued that disasters resulted from ‘Acts of Human Intervention’ that reflected the ‘predominant conditions of a society’. The ‘Acts of God’ model obscured the ‘political, economic, and cultural’ factors that encouraged use of disaster-prone locations, and rendered these the ‘not-to-be-disturbed order of things’ (Bankoff 2012; Britton 1986a; Clausen et al. 1978 pp.61-62; White & Haas 1975). When these factors were ‘disturbed’ by the definition of disasters as ‘Acts of Human Intervention’ disaster research began to conceptualise disasters as events that are ‘under more normal circumstances’ beneficial to people’s social, economic, demographic, political, cultural or other goals (Hewitt & Burton 1971 p.5, pp.11-12). Bankoff (2012 pp.34-35) later explained this as the ‘dual nature’ of disasters, where disaster-events were both an ‘event and [a] process’. This ‘ecological view of hazards’ understands disasters as ‘the actualisation of sociosystemic vulnerability’ or, alternatively, negative impacts to a community that follow from a longer-term decisions to use hazard-prone areas (Bankoff 2012; Hewitt & Burton 1971, p.146; Pelanda 1981, pp.1-3). However, due to friction in the politics stream the dominance of militarism in and military or ex-military personnel in the policy stream, disasters were not generally considered as ecological problems during the 20th century and thus the challenge of the social science had little impact on policymaking (Bankoff 2012; Britton 1986a; 1986b; Haddow et al. 2014; Kingdon 2013).

The core psychological assumptions of a Civil Defence and Command and Control approach to disaster were also challenged in the mid-20th century. The idea that para-military training and education programs transformed an ‘inept civilian’ into an actor capable of responding safely to disasters reflected the highly rational, bureaucratic mode of thinking adhered to in disaster research and disaster-relevant organisations (Dynes 1994, p.142). Research in psychology and economic psychology challenged both the idea of public panic and the simplistic cause-and-effect behavioural change model that underpinned Civil Defence programs (Katona 1951; Simon 1957; 1979; 1997). The public’s ‘pro-social’ rather than panicked response to emergencies was noted in both Quarantelli (1954) and Fritz and Mathewson (1957), yet the latter described the public’s forming emergent organisations and performing informal relief roles was identified as a cause for concern that indicated a loss of social control.
Dynes (1983) questioned the need for social control during disasters, and its suitability to the overall counter-disaster strategy. Dynes (1983 p.656) found that ‘emergency situations do not [always] create incompetence’ or disruption to existing social systems and structures that new behaviours could slot into’. Individual sense-making processed maintained a ‘clear connection with previous normal situations’ during disasters that, for Dynes (1983 pp.656-658) suggested efforts toward ‘creating new norms for individuals [by] marking out appropriate emergency actions’ were less effective than plans that built on individuals’ and communities’ routine behaviours. Where disaster planning and management got ‘bogged down in detailed trivia [or] attempted to dramatically change habitual patterns of behaviour’ it would fall victim to the fallacy of disasters being interpreted as a break in the actor’s typical routine, and thus a conceptual space into which new behaviours could be slotted, that could cause conflict and confusion between habitual and new patterns of behaviour (Dynes 1983, p.656).

Psychological theories had long held these views, and had challenged the ideas that individuals were passive recipients of information, or that providing individuals with information produced ‘rational’ outcomes. These include works on bounded rationality (e.g., March & Simon 1958; Simon 1957), and on economic psychology (e.g., Katona 1951; 1960). Such arguments, when applied to public safety strategies, implied that it was ‘impossible for the behaviour of a single, isolated individual to reach any high degree of rationality’ because it was ‘impossible for the individual to know all his alternatives or all their consequences’ (Simon 1997, p.77, p.92). Further, human decision-making can be a ‘myopic’ process that ‘prefers to receive positive outcomes early’ and to ‘yield to temptations and heavily discounting future outcomes’ (Johnson et al. 2012, p.492; Katona 1951 p.52, 1960). In the case of the public or the state preparing for (or managing) hazards, the ‘early, positive outcomes’ would represent the immediate socio-economic, demographic, cultural or political benefits of living in hazardous processes, and the ‘future outcomes’ the potential future effects of a disaster. Katona (1951 p.3; 1960 p.151) therefore challenged the ‘emphasis on long-range planning’ in decision-making and behaviour-changing activities, due to these depreciating the importance of ‘flexibility’ and ‘uncertainty’ that comes from risk-inducing short-range actions.

Such thinking influenced the post-1960s disaster theory and research context by driving attention towards the need for a more ‘entrepreneurial’ approach to disaster planning and management that emphasised flexibility, communication and information sharing, rather than operational planning (see Dynes 1983; 1994; Everson 1986; Granger et al. 2014). The shift in principle was recommended in the both the UN’s International Decade for Natural Disaster Reduction (1990-1999) and Hyogo Framework for Disaster Reduction, yet disaster planning and management remains a largely ‘control’ and rigid plan-based solution, rather than ‘continuing planning process’ involving ‘coordination of emergent resources’ (Quarantelli 1997, p.41; UN 1989a; 1994a; 1996a; 2005a). The result was a persistent emphasis on
military-bureaucratic principles that recommended conformity to centrally-defined goals, plans and principles at the expense of (devalued) ‘decentralised’ knowledge, and possible ‘commitment to failing courses of action’ (Takeda & Helms 2006, pp.206-211). This is not to say that central plans and operations are inherently ineffective approaches to disaster. Schneider (1992), for example, underlined that in some circumstances centrally-controlled disaster response and a Command-and-Control approach to public safety can be effective strategies (see also Britton 1986a; 1986b; Neal & Phillips 1995; Waugh 2000). What the criticisms of disaster theory and practice’s assumptions of rationality were doing was pointing to the possibility of utilising the public’s ‘problem-solving skills’ to help improve outcomes when appropriate (Dynes 1994, pp.141-142). Thus, the recommendation was for a new approach to disaster that recognised the need for ‘twin foundations of preparedness [pre-planning] and improvisation’ to effectively address the ‘agent-generated’ and ‘response-generated’ problems of disasters (Drabek & McEntire 2003, p.108; Quarantelli 1997, pp.41-42). Here, the ‘agent-generated’ problems required a ‘more tactical or contingency approach’, as the ‘specific needs’ created by the disaster could ‘only be partly anticipated beforehand’ and likely to be ‘different in every case’ due to the location and severity of the event (Quarantelli 1997, p.42). ‘Good’ disaster planning would see the ‘response-generated problems’ approached ‘in a […] strategic way with pre-planning’ as ‘certain response patterns or functions will […] have to be carried out in each case’, such as ‘warnings, sheltering, emergency medical care, search and rescue, and protection of property’ (Quarantelli 1997, pp.42-43).

Quarantelli’s (1997) listing of warnings as something that can be effectively prepared before a disaster occurs is, perhaps, oversimplifying the problem of issuing warnings to threatened populations. Mileti and Beck (1975 p.25) underlined that warnings should not be treated solely as ‘dissemination of a threat message’, but consider ‘all behaviour connected with the evaluation of threat, warning dissemination and public response to it’ both before and during a disaster to produce the best chance of public safety. This followed from Habermas’ (1970) work on communication, with Mileti and Beck (1975 p.27) noting that outcomes of warnings and advice are a ‘consequence of the interaction between the transmitter and its recipient’ that produced a ‘subjective interpretive response [in] the warning recipient [toward] the warning received’ (see also Weick, 1979). Individuals’ responses to disaster warnings ‘develop out of the interpretation of the warning or out of the ascribed meaning of the warning by the actor’, with the source, tone, context, content and delivery of the message influencing the response, as well as factors unique to the recipient (Drabek & Stephenson 1971; Dynes; 1983; 1994; Fritz 1961; Mileti & Beck 1975, p.27; Quarantelli 1954; Thompson 2008; Watts 1983; Weick 1979). Prospect Theory, for example drew attention to the ‘almost unlimited ability’ of human sense-making and decision-making processes to ‘ignore [their own] ignorance’, be ‘blind to the obvious [whilst] also blind to [the] blindness’, and, perhaps most importantly, the ‘laziness [built] deep into [human] nature’ (Kahneman 2011, p.24, p.35, p.201; Kahneman & Tversky 1979; 2000, p.xiii). Work on the Space Shuttle Challenger disaster puts these ‘abilities’ into a risk-awareness context, where information of an imminent or
incipient hazard was mediated through sense-making processes that filtered-out information that conflicted or contradicted the actor’s goals, and/or to normalise risk (Rogers 1986; Starbuck & Milliken 1988; Vaughan 1996; 1997). In natural disasters Drabek and Stephenson (1971 p.192) found that mass-media communications were ineffective in directly promoting public disaster-response, as ‘persons initially warned via the mass-media were far more likely to confirm the message or ignore it altogether’ compared to those receiving messages from emergency services. Thus, it can be difficult to effectively prepare warnings due to the complexity in conveying meaning generally at the same time as promoting a safe response locally.

These critiques conflicted with the persistent centralised, militaristic nature of disaster response. In 1983 Dynes (1983 p.656) had underlined the need for information to be shared ‘widely to those involved’, though this idea rarely informed practice because of the ‘fear [the information] might be misused’ or misunderstood. The heavy emphasis on control in disaster philosophy meant that ‘controlling misinformation’ took precedence over ‘provid[ing] the mechanisms for increasing public information in as many forms as possible’ (Dynes 1983, p.656). Dynes (1983 p.656) contended that controlling information ‘creates the problem it is intended to remedy’, because starving the public of information, or of information about the sources of information (etc.,) created a ‘greater need for information’. These issues were not addressed in the succeeding decade, and were highlighted as issues during the 1983 Ash Wednesday bushfires (Lazarus & Elley 1984; Miller et al. 1984). Dynes (1994 p.147) found that the presumed ‘weakness of [the] pre-disaster social structure’ implied communication should move “down” the authority structure, through the disaster organisation and to the community’. Those at ‘the top of the authority structure’, of course, are familiar with the pre-determined plan and thus consider their role as one of providing “‘official” instructions to an uninformed and passive population’, leading to ‘issuing orders at the expense of gathering [and sharing] information’ about the disaster (Dynes 1994, p.147).

5.1 Putting Theory into Practice: Stay and Defend

These factors also conditioned Victoria’s and Australia’s disaster research, and planning and management activities due to the similar developmental pathways of Australian and American disaster theory and practice. The state’s and fire services’ efforts to Command-and-Control public roles and responsibilities in disaster management, as has World War Two’s effects on organising Victoria’s volunteer Brigades has already been described, and disaster manager’s positive impressions of the performance of Civil Defence organisations in mitigating losses (e.g., Daw in Camperdown Chronicle 1945b). As in America these experiences seeded militarism in post-war disaster theory and practice in Australia. The heavy investment in human capital and military equipment during the War led senior politicians (e.g., W. A. McLaren, Secretary of the Department of the Interior in Canberra Times 1952d) to insist that the state increase its return on investment by using these
organisations and equipment in the post-war period to aid in disaster management. In Victoria the CFA was a benefactor of these investments, receiving well-trained personnel and military surplus, as well as enjoying the benefits of its now centralised management (e.g., *The Argus* 1952a; Murray & White 1995). These factors together, though, were modernising fire-fighting in a manner that would produce a shift in community roles and responsibilities in fire management.

The increased complexity of both fire-fighting equipment and tactics meant that the utility of the community (i.e., those not registered or affiliated to a Brigade) to formal fire-fighting activities diminished. This technologization of fire management, of course, was a long-run issue demonstrated (e.g.,) by the questionable usefulness of ‘city’ volunteers during the 1939 Black Friday bushfires (*The Advertiser* 1939e; *The Argus* 1939n). The breaking-point can be identified as the early 1960s, with the Dandenong Ranges fires the first at which the CFA actively ‘turned away volunteers’ (Murray & White 1995, p.177). The decision to refuse community assistance in fire-fighting activities was a result of community member’s lack of training in modern fire-fighting, such that they were of ‘little use’ to the overall effort ‘unless CFA men supervised them closely’, with this considered an inefficient use of Brigade resources (Anderson & Whitman 1967; *Canberra Times* 1962c; 1962f; Murray & White 1995, p.177). Of those few community members that were involved in formal fire-fighting efforts during 1962 it can be said that their contribution was at best limited, and at worst a hindrance. *Canberra Times* (1962c; 1962f) reported community members being poisoned after drinking from knapsack sprays provided by the CFA, as ‘many of the sprays had been used for blackberry killing [and] had contained arsenic’. These residents ‘disregarded warnings not to drink’ from the sprays issued by CFA personnel, and thus diverted more formal counter-disaster resources, such as members of the Red Cross who ‘dashed […] with emetics, making those who drank from knapsacks drink until they vomited’, that might have been better used elsewhere (*Canberra Times* 1962c; 1962f). Similarly, during the 1967 Hobart/Black Tuesday bushfires the ‘majority’ of civilian volunteers were found to have ‘never fought fires [and] not possess the most rudimentary knowledge of how to proceed [or] anything of the equipment that was available to them’ (Anderson & Whitman 1967, p.30). Of course, some community members offered a good account of themselves in support and auxiliary services (e.g., working with the Salvation Army or Australian Red Cross, see AWW 1962a; *Canberra Times* 1962f), but the lack of a properly trained civilian reserve of fire-fighters caught the attention of senior policymakers. The CFA’s Chief Officer (Larkins, in *Canberra Times* 1962c; 1962h) therefore pushed for the creation of ‘skeleton bush-fire defence organisations’ that operated parallel to the CFA’s Brigades. These ‘skeleton’ organisations would be made up of community members trained, in line with the principles of Civil Defence, to aid more formal services during major emergencies. No additional mention of these organisations has been noted in the historical record with this, perhaps, a result of a different policy idea achieving greater prominence: the beginnings of public advice to ‘Stay and Defend’ their property during bushfires.
The earliest example found of a government body offering advice to ‘Stay and Defend’ a property during a bushfire dates, coincidentally (or perhaps not), to 1962. A year earlier Luke’s (1961) book had advised the community to consider remaining with their house during a bushfire, with the Commonwealth Forestry and Timber Bureau (in Good Neighbour 1962a) following this up in a newspaper article that advised houses were ignited by small ‘spot fires’ that:

a little quick action on [the resident’s] part can easily put out – provided [they] have cleaned up the rubbish and grass beforehand […]

Very few houses in either townships or in the country have been destroyed when the owners have stayed by the house. If you desert it, then there is no one to put out the little fires when they start […]

Your house is the safest place for you to shelter and even if by some mischance it does burn down, you and your family can shelter somewhere behind it.

In line with Kingdon’s (2013) writing on the policy stream it can be said that this was not a new idea, but a combination and re-combination of ideas that already existed in the ‘policy primeval soup’. It had been understood since the 1850s that houses could be built to better withstand fires (e.g., Bendigo Advertiser 1859a), and accounts of the 1926 and 1939 bushfires noted people surviving by sheltering in low-fuel areas and/or behind houses (e.g., The Argus 1926b; 1939d). Barrow (1945) had scientifically explored the mechanics of structural ignition and loss during bushfires, and concluded that houses burn slowly after embers lodge and start small fires that grow to consume the property. This suggested that houses could be built or modified to resist such embers. Barrow’s (1945) work, together with the Rodger (1961) Royal Commission Report drew attention to the importance of proper landscaping and fuel management around a property in reducing fire incidence and severity. The Commonwealth Forestry and Timber Bureau (in Good Neighbour 1962a) further recounted anecdotal evidence that panic-induced efforts to ‘outrun or outdrive’ bushfires were flawed, as fires could ‘generally travel faster’ than the people fleeing them.

Perhaps most crucially, World War Two had seeded the bushfire policy primeval soup with the notion of Civil Defence – that the community could be trained en masse to perform a para-military (or para-emergency service) role. Typically, Civil Defence approaches involved hours of training followed by exams and accreditation by the parent organisation (whether military or support, e.g., Red Cross) to ensure recruits were suitably prepared for their role (e.g., The Advertiser 1939b; Burra Record 1939a; Dennis et al. 2008). No indication has been found in the historical record of such formal and accredited training systems preparing
community members to stay and defend, perhaps because of the perceived simplicity of the action. After all, when the advice was introduced it was considered that barring ‘mischance’ all it took was a ‘little quick action’ to safely defend a house during bushfires. Further, were community members to take responsibility for ensuring their safety during fires the Brigades’ role in community protection could be reduced, allowing for more trained personnel and specialised equipment to be brought to bear on the fire-front. The community’s enthusiasm for assisting fire-fighting activities during the counter-disaster phase was well-noted, and thus staying to defend could theoretically mobilise the community as an effective resource in fire-fighting efforts (e.g., The Truth 1944a). As the capacity of Victoria’s fire services to protect the community was being stretched by unsustainable demographic growth in fire-prone areas, itself a product of a militaristic focus on disaster-defence rather than vulnerability reduction, the transfer of responsibility for community safety to community members offered a promising avenue for future bushfire safety strategies, and thus became a focus of research and policymaking in the 1960s-1980s (Murray & White 1995; Lindell et al. 2006; Pyne 2015).

During the 1967 Hobart/Black Tuesday bushfires McArthur (1968) found evidence that where the public received “‘strong leadership’” from trained fire-fighters and had access to running water community members could protect themselves and their property from bushfires. Compared with the findings of community-volunteers’ ineffectiveness in supporting the organised fire-fighting effort (e.g., Anderson & Whitman 1967), the redirection of community resources to a self-protection role appeared to offer a promising solution to the problems of limited resources during fires, and of protecting people and property during fires. The two core problems to translating this to policy were the limited availability of fire-fighters to provide strong leadership during major fires, and of ensuring an adequate supply of water (Anderson & Whitman 1967; Canberra Times 1962c; 1962f; McArthur 1968; Murray & White 1995). In Victoria at least these problems could be easily overcome. The principles of Civil Defence suggested it would be possible to organise, train, integrate and coordinate the activities of the ‘general populace [with] the formal passive defence forces’ before the ‘stress and chaos’ of the counter-disaster phase; alternatively, it was theoretically possible to train and educate members of the community to provide ‘strong leadership’ to other community members during bushfires (Fritz & Mathewson 1957, p.90). The problem of mains water supplies in fire-prone country areas had been resolved by the vastly increased supply in response to post-war residential and commercial development in country Victoria. Thus, the stay and defend idea was feasible as a policy solution for Victoria’s bushfire problem, and advice to stay and defend (and occasionally to stay or go) proliferated (e.g., Eason in The Age 1970a; Canberra Times 1972a; 1973a).

At the beginning of the 1970s Australia’s disaster organisations noted that the segments of the public were ‘very apathetic’ in their response to the state’s Civil Defence training programs (Canberra Times 1970a). These concerns reflected a spate of disaster-related losses, including the 1965 Longwood and Gippsland (Victoria) bushfires, the 1967 Hobart
(Tasmania)/Black Tuesday bushfires, the 1968/1969 South Coast (NSW), and, crucially, the 1974 Cyclone Tracy (Northern Territory). These events caused massive financial and human losses, and thus drew government attention to the need to improve the organisational infrastructure supporting Civil Defence bodies. Cyclone Tracy led senior Australian politicians to highlight “research” findings that “all too often people don’t know what to expect and don’t know what to do when they are struck by a natural disaster” (Morrison in *Canberra Times* 1975a). The ‘substantive consequences’ of the dominance of militarism in disaster planning and management can be seen in the policies introduced to address the public’s ignorance and/or lack of conformity with proper disaster-responses.

The policy response to Cyclone Tracey shows Australia was committed to a ‘civil defence’ approach to disaster analogous to ‘wartime Britain’ that was ‘untested [in the] Australian context [and had] probably never been thought through’ (Britton 1986b, p.119). Britton (1986b p.119) criticised the approach as representing one ‘not […] custom-made for the problems or threats of natural disasters in Australia’. Whitlam (1974) had proposed a ‘new emphasis on the threat of floods, bushfires and other disasters’ in policymaking, with Australia’s spate of disaster-related losses framed as a result of the ‘ill-planned and over-crowded cities’ that were ‘exposing people to great dangers in times of disasters’. Rather than a vulnerability-reducing policy approach, however, Whitlam’s response was to ‘absorb the existing Civil Defence Organisations into the Australian Natural Disaster Organisation’ (R. Jones 2005, p.55). The Natural Disaster Organisation was introduced as a mechanism for ‘inter-agency coordination’ that would facilitate a ‘whole-of-government approach’ to disaster planning and management, but developed along militaristic lines (R. Jones 2005, pp.55-56). This followed from the military and ex-military personnel appointed to senior positions in the Natural Disasters Organisation and other disaster-relevant organisations having ‘only […] the haziest ideas’ of how to plan for and manage disasters, and thus falling back on the ‘old civil defence models’ (R. Jones 2005, pp.55-56). The Australian Natural Disaster Organisation considered the relevant lessons from Cyclone Tracey to be both the need to ‘inform Australians about natural disasters’, especially telling them ‘what to do before, during and after emergencies’, and the ‘supreme importance’ of utilising ‘resources from the Australian Defence Forces in [their] civil role’ (*Canberra Times* 1975a; R. Jones 2005, pp.55-56). These goals clearly resembled Fritz and Mathewson’s (1957) Civil Defence-inspired view of good disaster management, and thus Australian disaster management remained committed to the Civil Defence-like principles and goals of trying to ‘dramatically change’ public behaviour, and expecting this would lead community members to perform the roles ascribed them in central plans as if they were parts of a ‘rational clockwork’ (Dynes 1983, pp.656-658; Quarantelli 1987, pp.289-290; Takeda & Helms 2006).

In bushfire, the result was public safety advice that emphasised the need for community members to learn or re-learn traditional ‘country’ knowledge, including the importance of fire

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45 Bill Morrison, Australian Minister for Defence.
prevention and fuel management activities, as well as self-reliance during bushfires. The ‘New Australian’ identity that had developed after the Second World War through the ‘general realignment’ of Australia’s ‘political, economic, and social interests’, together with the emergence of a home-grown culture, sought to enjoy and foster Australia’s remnant native vegetation (Pyne 2015, p.322). This enjoyment took the form of outmigration to settlements in fire-prone areas, increased use of such areas by tourists, and the creation of national parks and reserves to protect remnant flora and fauna from further losses (Pyne 2015). These New Australians, however, created concerns among more established ‘country’ residents due to the latter’s fear of careless or malicious use of fire by the former, and by the former’s reluctance to manage fire risk through extensive fuel management (i.e., vegetation removal) programs (e.g., Canberra Times 1973b; 1976b; Murray & White 1995; Pyne 2015).

The New Australians were accused of ‘unguarded or illegal’, ‘careless’, or even ‘deliberately criminal’ uses of fires (Canberra Times 1976b). Such criticisms, of course, ignored the history of careless or malicious use of fire by the community in the first half of the 20th century, and the difficulties faced by state bodies in reducing such outbreaks through community education and/or legislation (FCV 1921a; 1931a-1939a; 1951a; Stretton 1939; 1944; 1946). Regardless, a narrative emerged in the 1960s and 1970s that the New Australians needed to ‘play [their] part’ in reducing the risk of bushfire by fire “‘proof[ing]’” their houses, managing fuels around their properties, and avoiding careless or malicious use of fire (Eason46 in The Age 1970a). Where residents had ‘proofed’ their house by sealing eaves and gaps in the structure, removed fuels from gutters and the vicinity of the property, and blocked gutters spouts to fill guttering with water Eason (in The Age 1970a) expected that fire would ‘pass over the property’, so that the house could serve as a place of safety for occupants in the fire-zone. When the fire-front passed Eason (in The Age 1970a) advised residents ‘come out and put the remnant [fires] out’, with this a clear advocacy of staying to defend a house during a fire.

Bushfire research in the 1970s refined this advice into coherent, comprehensive strategies for public safety that offered recommendations for people threatened by fire when at home, in vehicles, or on foot (e.g., Eason in The Age 1970a; Commonwealth Forestry and Timber Bureau in Canberra Times 1973a). These research projects and associated public education efforts can be thought of as part of Kingdon’s (2013 p.117, p.128) ‘softening up’ process where policy communities and entrepreneurs spend a ‘long time’ educating people to ‘build up some power’ or support for their policy idea. Similarly, these efforts were necessary to influence public opinion and the ‘national mood’ to understand and appreciate the new advice (Baumgartner & Jones 2009; Kingdon 2013). The need to educate (or re-educate) the community and to increase the receptivity of community members to bushfire safety advice was necessary because of socio-cultural and technological change, particularly vehicle ownership, that had increased the public’s ‘mobility’ both as commuters and tourists and thus brought ‘more and more inexperienced persons’ into contact with ‘high-intensity bushfires’ (Canberra Times 1973a). The advice was for residents to ‘stay’ if ‘fire threatens [their] house’

46 Captain Richard Eason, CFA Chairman.
while at home; to remain in a vehicle if travelling when encountering fires; or to use ‘every means to protect [themselves] from radiation from the flames’ by selecting an area with the ‘least amount of combustible material’ if on foot (Commonwealth Forestry and Timber Bureau in Canberra Times 1973a). In each case, it was essential that community members ‘remain calm and […] not panic’ (Commonwealth Forestry and Timber Bureau in Canberra Times 1973a).

The media was used to spread these messages to dispel ‘popular misconceptions’, such as the idea that houses or cars exploded immediately upon contact with flames that had ‘caused many persons to panic and sometimes flee a safe refuge’ during major fire events (Canberra Times 1973a). This presentation reflected the recent deaths resulting from a decision to leave a property during the 1965 Longwood bushfires, and from fleeing cars when threatened by fires during the 1969 Lara bushfires (see Canberra Times 1969b). At the same time, it represented an attempt to ingrain new behaviours into the community’s responses to fire. Advice to ‘wear clothing (preferably wool) which covers [one’s] body, arms and legs’ as such clothing would ‘allow [the individual] to work more effectively as a fire-fighter’ relied on prior training and education of the way to perform the role of a fire-fighter (NSW Bush Fire Council cited in AWW, 1976a; Canberra Times 1973a). Such advice, as well as Eason’s (in The Age 1970a) call to ‘[a]void panic’ and to prepare to ‘fight the fire around the house’, or from the Commonwealth Forestry and Timber Bureau (in Canberra Times 1973a) to not ‘flee a safe refuge’ is simplistic and relied on assumptions of individual behaviour and decision-making that had been and were being roundly challenged by disaster theorists and/or sociology, psychology and geography. Regardless, these state agents and agencies were emphasising a public bushfire safety strategy that resembled the principles of Civil Defence, in that it saw training and education as a means to reduce the risk of panic, and instil new, safer behaviours into the public’s disaster response.

Australia’s wider political context in the 1970s, 1980s and 1990s likewise contributed to the acceptability of a Civil Defence-like approach to public safety. National socio-economic difficulties and political clashes between Whitlam and Fraser in the 1970s, together with the policy decisions of Hawke and Keating, foreshadowed the neoliberal and individualistic turn in Anglophone politics. The chronic unemployment and inflation issues under Whitlam led to Fraser’s election with a mandate to cut public spending and support business to mitigate the country’s economic difficulties (Blainey 2014; Clark 2006; Kelly 1994). When Hawke and Keating took over in the 1980s they continued this trend of economic rationalism through the privatisation of government assets and financial and labour market deregulation, including the floating of the Australian dollar. These policy shifts were informed by the economic rationalist – or neoliberal – view that supporting businesses would produce better social and economic outcomes than policies based on direct social security and support payments (Kelly 1994; Macintyre 2016; Pilger 1992). Where these methods failed to alleviate hardship, or to reverse the decline in the Australian middle class, these were explained as a result of
‘slackers’ failing to make use of the ‘fair go’ afforded them by the state’s economic policies (Pilger 1992, pp.333-335). In contrast, the success of the growing ‘Bonanza Class’ of wealthy Australians who had profited from socio-economic reforms, and the middle-class that had maintained their position, were considered ‘battlers’ (Pilger 1992, pp.333-335).

The shift towards individual responsibility for socio-economic outcomes, and a more general withdrawal of funding for public services, created political conditions conducive to a new, ‘low technology, self-reliant’ approach to community bushfire safety (Packham in Pyne 2015, p.418). These factors combined with the continuing influence of Civil Defence as a guiding principle for disaster-relevant organisations to see the public increasingly pushed from the 1960s onwards to take responsibility for its own bushfire safety, principally by adopting the ‘Stay and Defend’ survival strategy (see The Age 1970; AWW 1980a; Canberra Times 1981c; Good Neighbour 1962a). These political constraints continued to inform Victoria’s public bushfire safety strategy after Ash Wednesday. The post-Ash Wednesday reviews and reports identified the victim’s selection of inappropriate survival strategies, lack of understanding of appropriate survival strategies, failure to take responsibility for their own safety and/or vulnerability resulting from physical and/or intellectual impairment47 as the factors underpinning civilian loss of life during these fires (see especially Krusel & Petris 1992; Wilson & Ferguson 1984). As the public had ‘chosen’ to live in fire-prone locations (Henri 2003; Miller et al. 1984; Milton et al 1984), they had a duty to take responsibility for their own safety. This could be facilitated through militaristic training or community education programs that empowered the public to make decisions as to their response to fire without the need to invest in unaffordable or inefficient fire suppression technology (which had shown to be ineffective in the face of catastrophic fires), or taking the politically unpopular step of introducing stricter land development controls. As a result the dominant problem-frames and political constraints continued to consider public bushfire safety as an individual responsibility that could best be addressed through policy solutions that improved Civil Defence-like community training and education schemes (Kingdon 2013). Krusel and Petris’ (1992) and Wilson and Ferguson’s (1984) finding of physical and/or intellectual impairment as a key factor underpinning loss of life in bushfire would, however, produce a major change to the dominant ‘Stay and Defend approach’ to public safety. These works recognised that there were some individuals in fire-prone communities that could not safely perform the actions required to ‘Stay and Defend’, and thus their safety could best be assured were they to be evacuated, or to self-evacuate from the fire-affected area. These ideas combined with the ‘Stay and Defend’ approach to bushfire to produce a new public safety strategy, ‘Stay or Go’, that guided Victoria’s bushfire-related policy up to the 2009 Black Saturday bushfires.

The persistence of militarism in disaster practice, and the growth of Civil Defence-like principles in Victoria’s bushfire strategy, can be considered the ‘substantive consequences’ of the development of disaster practice, and of the wider political and cultural trend towards

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47 Whether as a result of physical disability, age, intoxication, or a mental health issue.
individualism (Quarantelli 1988a p.i). Military-like methods of organising Victoria’s fire services served as the foundation for the brigade movement and became entrenched as the preferred model for fire management by World War Two. The result was ‘good years’ for the CFA between the end of World War Two and the 1980s where fire-related losses were managed with new technology and methods of organising and performing fire management, but these masked the growing vulnerability to fire caused by out-migration to fire-prone areas (Murray & White 1995, p.255; Pyne 2015). The presence of senior military or ex-military personnel in senior positions Australian disaster management organisations, and the CFA’s own ‘paramilitary […] culture’, meant that disaster planning and management struggled to respond to the needs and vulnerabilities resulting from out-migration (Joy 2012, p.7). In particular, the centralised planning and Command-and-Control aspects of militarised disaster planning and management were difficult to integrate with growing community diversity in values and goals for the natural environment. This resulted in in tensions between prevailing agency strategies for fire prevention and community conservationist goals. Together with the increasing complexity of the equipment and methods of fire management this militarism fostered a push for community members to take responsibility for its own safety during disasters, with this achievable through a Civil Defence-like approach to public bushfire safety.

These developments can be thought of as analogous to Beck’s (1992 p.21) warning of the need, and failure, to develop a ‘systematic way of dealing with hazards and insecurities induced and introduced by modernisation’. In 2009 Beck (2009 p.54) would reflect that ‘failures of experts in the management of risks’ with ‘science’, ‘politics’, ‘the mass media’, ‘businesses’, ‘the legal system’, and ‘even the military’ among the experts that had failed to ‘define or control risks in a rational way’. The result was that the public was left to decide for themselves their response to risks, while ‘institutions cynically whitewash their own failure by appealing to “responsibility”’ (Beck 2009, p.54). In the case of natural disasters at least the failures of such ‘experts’ can be thought of as an outcome of the build-up of almost unmanageable vulnerabilities in hazardous places, and the socio-economic, demographic, cultural and political implications of attempting to reign in these problems. An analysis of Los Angeles, for example, described how the physical environment presented a risky ‘conjugation of earthquakes, wildfires and floods’ that, through a combination of ‘sheer gambler’s luck’ of a centuries-long period of relatively mild disasters and the socio-economic, demographic and political ‘advantages’ of developing such a hazardous place built up (almost) unmanageable vulnerabilities (Davis 1998, p.38, p.54). A similar developmental pathway in Victoria culminated in the 1983 Ash Wednesday, bushfires which produced 47 deaths in the state and focus policymakers’ attention on the state’s public safety strategy and led to a shift in policy away from Stay and Defend to Stay or Go.

48 E.g., Bill Morrison, Minister of Defence overseeing the Natural Disasters Organisation; Major-General Alan Stretton as director-general of the Natural Disasters Organisation; Captain Richard Eason as chairman of CFA; Air Vice Marshal Townsend as director of the State Emergency Services, Roger Jones’ service in the Army before joining the Australian Counter Disaster College (later the Emergency Management Australia Institute) as Chief Instructor. See The Age (1970a); Canberra Times (1974a; 1975a); R. Jones (2005).
Chapter 6 – ‘Stay and Defend’: A Turning Point

This chapter considers the effects of the 1983 Ash Wednesday bushfires on Victorian bushfire management. It begins with a brief discussion on community education and advice offered in the years 1980-1983 to show these still favoured a Civil Defence approach to public safety. The education and advice found in the archives from the 1980s continued in a similar vein as that identified from the 1960s and 1970s, in that the need to train and educate the public of the benefits of staying to defend remained prominent (e.g., *AWW* 1980b; Luke & McArthur 1978). Rather than offering a comprehensive review of public advice between 1980 and 1983 the chapter shows that the state was recommending that people take responsibility for their own safety during bushfires, and experimenting with the kinds of advice necessary to promote these behaviours.

The focus of the chapter is on the Ash Wednesday fires and their effects on human lives and property, as well as on official public safety advice in Victoria. This analysis is presented in the form of a Kingdon-like ‘Multiple Streams’ analysis of developments in four key areas of bushfire management: fuel management, land management, building management, and public safety. The ‘fuel management’ section reflects on the steps necessary to reduce fuels in areas likely to experience fires that would impact on human assets and lives; ‘land management’ on the state's development policies and controls up to and after Ash Wednesday; ‘building management’ similarly on construction standards up to and after Ash Wednesday; and ‘public safety’ on the kinds of public education and advice offered both before and after the fires. In each area Kingdon’s ‘steams’ were coupled to select the ‘Stay or Go’ approach to public safety as the preferred model for public safety in Victoria.

Kingdon’s (2013 pp.97-98) framework argued that crises and disasters ‘only rarely carry a subject to policy agenda prominence by themselves’. More generally crises and disasters must ‘reinforce some pre-existing perception of a problem’ that was ‘already “in the back of people’s minds”’ before they produce policy change (Kingdon 2013 p.98). The 1983 Ash Wednesday bushfires fit this description. The preceding decades had seen concerns about the fire-risks caused by the increased presence of people and property in fire-prone areas, the community’s deficiencies in fuel management, and the strained capacity of fire and emergency services to protect the community become prominent in the “back of people’s minds” (Eason in *The Age* 1970a; NSW Bush Fire Council in *AWW* 1976a; Commonwealth Forestry and Timber Bureau in *Canberra Times* 1973a). These problems were addressed through mass-media and informal brigade-community communications designed to promote a more Civil Defence-like role for the community in fire management. Ash Wednesday
brought these problems from the “back of people’s minds” to prominence in the governmental and decision-agenda by opening a policy-window for major change in public bushfire safety policy. This window was opened because Ash Wednesday proved that Victoria’s existing approach to bushfire management would fail under catastrophic fire conditions. Pyne’s (2015, p.412) excellent description of Ash Wednesday laid out the magnitude of the policy-window opened by the fires:

New Australia had thrown an incredible armada of machinery and men at the flames – 558 brigades, 21,000 fire-fighters, 15 fixed-wing aircraft, 13 helicopters, numerous earth-moving vehicles, a MAFFS [Modular Airborne Fire-Fighting System]-equipped retardant plane, a FLIR (Forward Looking Infra-Red) mapping scanner. It had activated social, legal, and economic institutions, both private and public. It had declared fire bans and states of emergency. It had tended to fire victims with speed, organisation and compassion. It had virtually mobilised Australian society. None of this had been possible in 1939. And yet – the losses were greater.

The losses on Ash Wednesday in Victoria were not greater than the 1939 Black Friday bushfires, but were still the worst loss of life during a single bushfire season since the 1943/1944 season (COAG 2004). In Victoria 47 lives and over 2,000 structures were lost as 4618.64km² burnt (COAG 2004).49 Across Victoria and South Australia around 7550 lives were lost as 6220km² burnt, making these the deadliest Australian fires in the 20th century. The catastrophic conditions of Wednesday 16 February 1983 (Ash Wednesday) came after, and were followed by, a long fire-fighting season that tested the capacity of Australia’s disaster management and emergency service organisations. Prior to its devastation on Ash Wednesday the Macedon area was badly affected by fire, including a ‘major fire’ on 1 February 1983 (Lazarus & Elley 1984 p.8; Miller et al. 1984 p.88). The pre-Ash Wednesday fires at Macedon were ‘extensive and […] required a large-scale operational response’ that was ‘carried out in an organised and orderly manner’ in terms of ‘command, control [and] coordination’ due to the previous 40 years of refinement of fire-fighting under the CFA (Miller et al 1984 p.88). The conditions on Ash Wednesday, however, meant some brigades had to ‘resort to self-protection’ activities rather than community-protection as the ‘dynamic behaviour of the fires’ (resulting from the ‘extraordinary weather conditions’) meant that ‘fires spotted behind deployment positions and placed units in serious danger’ (Miller et al., 1984. p.88-89).

49 During the 1939 Black Friday bushfires 71 people died in Victoria, and 20,000km² burnt.
50 There is ambiguity over the number of deaths on Ash Wednesday that will be developed subsequently; briefly, estimates on the number of deaths on (or resulting from) Ash Wednesday range from 71 (Pyne 2014, loc.8961) to 83 (Tibbits et al., 2008: 62-64).
Miller and colleagues (1984 p.89) reported that in ‘some cases’ fire brigades were ‘literally over-run and overwhelmed by the fire conditions and, even had they been given substantial reinforcements, could not have held fire lines’. Put simply, the number of threatening fires burning on Ash Wednesday meant that the ‘operational coherency’ noted earlier in the fire season ‘became impossible’, as the fires confirmed ‘what decades of hard experience had accumulated’ (Britton 1986b, p.114; Miller et al. 1984, p.89; Pyne 2015, p.414). Under catastrophic fire conditions Victoria’s emergency services could not provide the level of protection, assistance, advice or warnings to the community, nor could they effectively fight such fires. This consensus reflected the views of a range of post-fire reviews produced by the Ash Wednesday bushfires, which included both Commonwealth and state level reviews of bushfire management in Victoria (Miller et al. 1984; Milton et al.; 1984); a coronial report (Ellis 1983); a CFA review of the contextual factors surrounding civilian deaths in Victoria (Krusel & Petris 1992); a Project Aquarius-affiliated sociological examination of the experience of survivors (Lazarus & Elley 1984); a CSIRO-supported review of the factors influencing structural survival and loss (Ramsay et al. 1985; 1987); referred journals (Wilson & Ferguson 1984; Britton 1986b); and a notable individual account of personal survival during the fires (Packham in Griffith (2012) and Pyne (2015). These publications agreed that despite a ‘century and a half of experience […] and the investment of millions of dollars’ in fire-fighting equipment and research, ‘nature still had the upper hand’ (Murray & White 1995 p.215).

That the Ash Wednesday fires opened a policy-window can be seen in the raising in prominence of different problem-frames and policy solutions in the aforementioned post-fire reviews. These included the maintenance of existing asset-protection/defensive frame through additional investment in fire-suppression technology and redoubled fuel-management efforts and Civil Defence approach to public safety, or a shift to a vulnerability-reducing frame through stricter controls on developments in fire-prone areas. The result was, primarily, a continuation of the existing asset-protection/defensive frame that manifest in the formalisation and extension of the ‘low technology, self-reliant bushfire response’ that had begun to rise to prominence in the 1960s – Stay and Defend – with the added caveats that ‘incapable’ or ‘unprepared’ people should leave before being threatened by the fires (Krusel & Petris 1992; Packham in Pyne 2015, p.418; Wilson & Ferguson 1984). Thus, Stay and Defend matured into Stay or Go. Using Kingdon’s (2013) Multiple Streams framework the reasons for this selection become apparent. Stay or Go fit with the prevailing asset-protection

51 This report was not available during the data collection phase of the thesis. It has not been digitised, and the only known physical copy of this report is held by the Australian Emergency Management Institute (AEMI). During data collection the material was in the process of moving from Mt Macedon, Victoria to Canberra, ACT as AEMI’s library moved. From c. May 2014 through c. April 2015 the report was held in storage in preparation for the move. After the switch to Canberra the report was not made available to the public. This is not felt to undermine the findings of the thesis too severely, as they are directly rarely cited in bushfire research. Handmer and Haynes’ (2008) book on Community Bushfire Safety did not make direct use of Ellis (1983), nor did Haynes and colleagues’ (2008a; 2010) reviews of bushfire-related deaths in Australia from 1900 to 2008. As a partial proxy for Ellis (1983) the thesis used newspaper reports of the proceedings (e.g., Canberra Times, 1983c; 1983d; 1983e; 1983f; 1983g).
problem frame, and would not cause substantial friction in the politics stream. The lack of friction followed from its underlying method – training and educating civilians to perform new behaviours – fitted the views and values politically powerful, generally military/ex-military or at least militarised senior personnel in disaster-related organisations. Further, its low-cost low-technology approach appealed to a public unwilling to spend much on protecting themselves from fire and fit the economic-rationalist political context (see Ramsay et al. 1985; 1987). And, perhaps most importantly, Stay or Go was ‘ready to go’ when the ‘big wave’ of Ash Wednesday came in (Kingdon 2013, p.165). The constituent ideas of Stay or Defend had been in what Kingdon (2013) called the policy primeval soup since the 1960s, and underwent further refinement through combination and recombination with other ideas in the 1970s and 1980s. When the post-Ash Wednesday bushfires found merit to the claims supporting Stay or Defend, in particular that houses were unlikely to burn down if people were present to defend them and that most total deaths in Victoria occurred outside, and added the caveat that some should leave early, the conditions were right to push Stay or Go to prominence in the governmental and decision agendas. The final push and ultimate selection of Stay or Go as the Victorian state government’s preferred public safety strategy occurred after Krusel and Petris’ (1992 p.3) work suggested that bad decision-making when faced with the fire-threat and unpreparedness were the two major underlying causes of death. This finding, combined with the works of Jones (1987), Silberbauer (1990) and Whelan (1987) on the potential benefits of a social capital/community capacity building approach to public issues, catalysed a wave of CFA-managed, formal community training and education schemes in the 1990s and 2000s.


In the prelude to Ash Wednesday Victoria’s and Australia’s bushfire safety advice continued to emphasise the relative safety of the Civil Defence-inspired ‘Stay and Defend’ strategy relative to late evacuation. These ideas were based on the perceived role of disaster planning and management as reducing ‘panic and ignorance’, and belief in training and education to inculcate new behaviours as the most effective means to achieve this (AWW 1980b; Canberra Times 1970b; 1980d; 1981c; 1982a; Dynes 1983; 1994; Takeda & Helms 2006). The state and Federal governments’ support of ‘Stay and Defend’ as a viable alternative was made clear through an increasing range of official publications offering the community ‘tips’ on performing activities that would closely resemble those that came to be known as ‘Stay or Go’ in the 1990s (e.g., NSW Bushfire Council in AWW 1980a; CSIRO in Canberra Times 1980c; 1981c). The core exception, at this stage, was that state advice had such faith in the ‘stay’ component that some senior fire-fighters did not favour a ‘go’ response from the public.

52 Such as houses igniting slowly due to embers lodging in the structure, the improved chances of survival of houses built of brick and that had low fuel loads surrounding the property, the risks and difficulties posed by attempting to evacuate ‘late’, and the wartime lesson that the public could be trained so as to assist emergency and disaster organisations during events.
Lewis\textsuperscript{53} advised that those living in ‘weatherboard or fibro houses or those living on slopes where fire can be fanned violently upward’ must be ‘particularly careful’ during bushfires, yet reminded the public that ‘[w]ith sensible knowledge and no panic you can survive’ (AWW 1980b). Hurditch\textsuperscript{54} was ‘against evacuation’, based on the belief that ‘able-bodied people should remain […] because most houses are burnt when people are not there to protect them’ (AWW, 1980a; \textit{Canberra Times}, 1982a).

The NSW Bush Fire Council’s advice supported people staying with their homes during a bushfire – individuals should ‘keep watch for flying sparks’, and ‘fire-fighting can be carried on outside’, for instance, – as well as well as hinting at the dangers of late evacuation – ‘do not run in a panic from the fire’ – without acknowledging the safest option of leaving early (AWW 1980b). Indeed, it appears that public safety advice in the early 1980s did not consider any form of self-organised evacuation to be an appropriate or effective response to fire. A manual produced by NSW Bush Fire Brigades recommended that residents ‘[d]o not leave [their] house unless ordered by the Bush Fire Brigade captain’, and advised that ‘the police have to power to issue such an order, and may not be well versed in what to do when a bushfire threatens’ (\textit{Canberra Times} 1981c). The manual, produced to help the public ‘beat the bushfire menace’, again underlined the importance to ‘not panic’, and cited ‘[e]xperience [that shows] that nearly all houses destroyed by bush fires have been abandoned and could have been saved if an able-bodied person had been there’ (\textit{Canberra Times} 1981c).

When these recommendations that the public Stay and Defend and be self-reliant during bushfires are compared with the historic examples of individuals being forced to undertake such actions, such as during the 1939 Black Friday bushfires, it is clear that a major change in Victoria’s bushfire strategy had occurred. The traumas experienced by those remaining in the fire-ground during Black Friday, where individuals ‘broke under the terrible strain’, ‘almost suffocated’ in inappropriate shelters, or rubbed children’s faces with mud to prevent blistering had been replaced by state advice that Staying and Defending was an appropriate survival strategy (see e.g., \textit{The Age} 1939c; \textit{The Age} 1939f; Mercury 1939b). It can even be inferred that the public was enthusiastic for this change in state advice as the market for bushfire-protective equipment, such as home sprinkler systems, grew in the 1980s and firms began to join the state in offering advice on how to Stay and Defend (\textit{Canberra Times} 1982b; 1982c).

This brief portrait of the years 1980-1983 showed that public bushfire safety advice remained focused on training, educating and advising individuals to stay and defend their property during fires. Less emphasis was placed on early evacuation for ‘unprepared individuals’, while late and agency-ordered evacuations were

\footnotesize{\textsuperscript{53} Publicity Officer of NSW’s Bushfire Council.}

\footnotesize{\textsuperscript{54} NSW’s Chief Co-ordinator of Bush Fire Fighting.}
framed as inappropriate responses to bushfire. This followed from Australia’s historical experience of bushfires, which believed that ‘most’ lives lost to bushfire occurred on ‘days of extreme fire danger when people are subjected to abnormally high heat stress engendered by the weather or contact with fires’ resulting in the public succumbing to a ‘state of confusion or even panic under which circumstances and [sic] affect both personal and community judgement’ (Luke & McArthur 1978, p.305). To address this risk the state adopted a Civil Defence-like training and education approach to transform the public from its “inept civilian” form into paramilitary-like actors and groups (Dynes 1983; 1994). This carried into Ash Wednesday as Johnson advised on Friday 11 February 1983 – five days before Ash Wednesday – that while the fires were “as big […] as we have had since 1939”, the CFA “[did] not believe in evacuation”, and advised that ‘[p]eople are usually better staying in their houses if they have taken all the proper precautionary measures’ (Canberra Times 1983a). A week after Johnson’s confident predictions the CFA’s position had completely changed. Canberra Times (1983h) reported how ‘[a]t the height of the inferno, firemen abandoned any hope of saving property and concentrated on evacuating people’, because of the losses accrued by allowing people to remain in a fire-zone.

When Victoria’s approach to public bushfire safety was examined after the 1983 Ash Wednesday bushfires these principles would be accepted as a valid basis for a more-formal future public safety strategy, with the added caveat of emphasis on the need for people to be ‘able-bodied’ to successfully stay and defend. Additional focus was needed to promote community conformity with fuel management tasks, and in encouraging the public to overcome its ‘natural tendency’ to panic (Takeda & Helms 2006, p.205). Other potential frames and solutions to Victoria’s bushfire problem were floated after Ash Wednesday, including better land development controls and building standards to reduce vulnerability and improve defendability against bushfires, as well as improvements to communication and warning systems to ensure a good supply of information to the community. These frames and policies, however, received far less prominence in policymaking in the post-Ash Wednesday period than the problem of how to effectively train and educate the public in protecting itself from bushfires. The reason for the selection of the ‘Stay or Go’ public safety strategy over these alternatives will now be explored using Kingdon’s (2013) Multiple Streams framework for policymaking by discussing the problems brought to prominence by the 1983 Ash Wednesday fires, the ideas existing in the policy primeval soup to address them, and the political constraints placed on some frames/solutions that made Stay or Go the most suitable policy choice.

6.2 Problems, Policies and Politics: Fuel Management

The Ash Wednesday fires again highlighted the problem of fuel management in Victoria. Stretton (1939 p.13, p.18) had warned of the risks of townships being ‘encroached’ by scrub

55 Keith Johnson, CFA Deputy Chief Officer for State Operations.
and houses with ‘scrub [growing] against their walls’ prior to Black Friday, and Miller and colleagues (1984 p.90) mirrored this by noting the dangers of houses ‘set among areas of high fuel levels, [and being] literally surrounded by such fuel sources’ prior to Ash Wednesday. At the landscape level demographic and cultural change led to a new problem of an ‘urban bush’ made up of ‘remnant vegetation’ that was difficult to treat due to spatial changes to country settlements, and the political implications of burning (Milton et al. 1984, p.14). Denser population in and the overall sprawl of fire-prone country settlements made efficient burning of the land, including through the use of aircraft, inefficient due to the ‘untypically small areas area that could be safely burnt, and potentially dangerous due to the risk of fires impacting human settlements (Milton et al. 1984, p.2; Pyne 2015). Other features of the built environment such as ‘roads, railway lines and other public facilities’ further subdivided the area that could be burnt and thus made fire as a fuel management tool less efficient (Milton et al. 1984, p.2; Murray & White 1995, p.245). Pyne (2014 loc.7951) likewise found that the ‘Australian strategy’ of concentrating on reducing fuels was hindered by the post-war demographic shift that replaced a ‘lightly populated landscape’ with ‘[s]prawling suburbs’. Despite this, the state continued to perform fuel reduction burns due to the risk of fire, but these were generally ‘inadequate’ to reduce the risk to public safety (Ellis in Murray & White 1995, p.245). Milton and colleagues (1984 p.2) raised similar concerns, noting that the Australian ecosystem was ‘adapted to fire regimes, not to single fire events’, with that required regular burns of an area to be ‘significant’ in reducing fire risk. Such actions would be costly and, due to cultural restrictions of broad-area burns lit from the air, inefficient. The problem might have been addressed by ‘frequent low intensity hazard reduction burns’ but these, again, were inefficient and costly solutions that could result in socio-cultural hostility (Milton et al. 1984, p.xiii, p.2, pp.11-12).

After Ash Wednesday the cultural and political pressure exerted by the conservationist branch of the New Australian movement continued to emphasise the ‘aesthetic and cultural value’ of native flora and fauna, and opposed the indiscriminate loss of these (Milton et al. 1984, p.14). Thus the politics stream qua public opinion constrained the use of large-scale fuel reduction burns at the same time as spatial and demographic factors were restricting the efficiency of fuel reduction burns. Public opinion might be placated through the ‘post-fire rehabilitation’ of deliberately-burnt areas but, again, this would be expensive, and involve the risk of fires escaping and impacting on human settlements (Milton et al. 1984, p.xiii). The state could have potentially managed these constraints perform fuel reduction through support for local government schemes involving removal of fuels ‘by hand’, but such activities were ‘labour intensive’, and thus ‘impractical and too expensive’ for widespread use (Milton et al. 1984, p.14). Other activities such as the use of machinery to ‘break down fuels’ or to remove fuels through grazing were, likewise, considered ‘expensive and impractical in most situations and unsuitable for general applications’ (Milton et al. 1984, pp.11-12). Given these technological, cultural, demographic, infrastructure-related and economic constraints on performing efficient and effective fuel management in areas that needed the most protection the policy solutions prominent after Ash Wednesday were similar
to those prominent before the fires: the promotion of small-scale, community and/or household-level fuel management.

The thesis has repeatedly noted the state government’s and fire services’ difficulties in motivating fuel management among residents in fire-prone areas. The persistence of such advice reflected recognition that fuel management at the household level was an effective means of reducing the risk to a house (see Barrow 1945; Stretton 1939). After Ash Wednesday Lazarus and Elley (1984) and Ramsay and colleagues (1985; 1987) again found that the fuel load around a house had a direct influence on the house’s chance of surviving the Ash Wednesday bushfires. Lazarus and Elley’s (1984 p.10) sample was small, comprised of only about 50 houses, though found that properties with ‘tall trees growing close to [them]’ were more likely to be lost in the fires. Further, the presence of ‘tall trees’ was found to be ‘much more significant than the types of plants in the garden’ in predicting house survival (Lazarus & Elley 1984 p.10). Ramsay and colleagues (1985; 1987) confirmed these findings in their larger survey of 1,150 houses in the Otway Ranges. The ‘amount and type of vegetation around the house’ was determined to be an ‘important factor’ in house survival or loss during the Ash Wednesday bushfires (Ramsay et al 1987 p.50). As vegetation around a house became ‘thicker’, and as the ‘proportion of trees to shrubs increased’, houses became ‘more likely to be damaged or destroyed’ (Ramsay et al 1987 p.50). There were, of course, difficulties in judging the pre-fire “housekeeping” of fuel management around a property because the fires ‘destroyed the evidence [of the] degree of clearing of undergrowth, grasses, leaf debris, etc.’, but it was generally agreed that the properties were ignited by embers, rather than direct flame-contact, and structural survival was related to property-level fuel management decisions (Lazarus & Elley, 1984; Ramsay et al. 1985, pp.5-6; 1987).

Post-Ash Wednesday research confirmed Barrow’s (1945) warnings of the need to exclude embers from eaves and openings during fire, and added to this an emphasis on reducing local sources of embers such as trees in the immediate vicinity of the property. Implementing potential policies to motivate such action would, however, be constrained even at the household level by the ‘politics’ stream. The state’s decades-long difficulties in promoting community fuel management and reducing careless or malicious uses of fire was complicated by the growth in heterogeneity in community values and goals in fire-prone areas (Canberra Times 1976a; FCV 1921a; 1931a; 1939a; 1951a; Sunday Herald 1951a; Sydney Morning Herald 1941a; Western Herald 1964a). Stacey (1969 pp.141-142) had argued that social systems reach a ‘critical point’ where new migrants will alter the prevailing social system and, if migration is sustained, ‘destroy the system altogether’ and lead to a new system ‘dominated by institutions other than those of the erstwhile local social system’. This is a good analogy for the socio-cultural and demographic changes in Australia caused by the Second World War. Pyne (2014; 2015) referred to such change as the beginning of a ‘New Australian’ identity that was distinct from the older ‘European Australian’ identity. The ‘New Australian’

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56 That is whether they were introduced or native species.
saw the country’s unique flora and fauna as something to be celebrated and fostered for social and cultural uses, rather than used primarily for economic gain. Rather than the relatively homogeneous social makeup in pre-Second World War fire-prone settlements, where the state’s efforts were to prevent economically-motivated careless or malicious use of fire, fire managers were now contending with socio-culturally and recreationally-motivated efforts to prevent fires, including fuel-reduction burns. The argument here is somewhat simplistic, in that the notion of a ‘community’ in a locality ignores the ‘mosaic’ of communities operating in a spatial area whose activities, values and goals conflict with or contradict those of other communities (Abrams et al. 2004; Bates & Bacon 1972; Buck 2001; Levitas 1996; Marsh & Buckle 2001; Silver 1994; Stacey 1969). The point stands, though, that the state had not been able to ensure compliance to fuel and fire management laws among a relatively homogeneous ‘community’ in the first half of the 20th century, and now had to somehow promote compliance in a more difficult, heterogeneous social context (Milton et al. 1984; Quarantelli 1987; 1988a; 1992).

In the vital fuel-reduction component of fire management the reluctance and/or resistance of “‘greenies’”, or conservationists, to perform fuel management was exemplified in Lazarus and Elley’s (1984 p.18) criticisms of conservationists’ unwillingness to ‘heed the dangers of bushfire’. Lazarus and Elley (1984 p.18) described instances where “‘greenies’” would encourage trees and vegetation to ‘overhang [their property] and to maintain all natural growth’ in the property’s surrounds, with these constituting a major fire risk. Lazarus and Elley (1984), like most criticisms of such action, do not go far enough in trying to appreciate the goals and values underlying these activities. Milton and colleagues (1984 p.12) were an exception to this in appreciating the ‘different set of management problems’ created by the conservationist current in fire-prone areas and the need to balance ecological and fire management goals but, more generally, actors that did not conform with state advice and/or orders to reduce fuels were criticised for their apathy and ignorance. Canberra Times (1981c) lamented the dangers caused by those ‘new to living in the bush [that were] savouring the romance of rural living’, and so ‘did not see the dangers’. ‘Even if told’ such actors were said to ‘find it hard to recognise the perils in which they place themselves and their families’ (Canberra Times 1981c). Other parts of the community-mosaic in fire-prone areas, such as the ‘established rural families’ were said to look on ‘in horror’ at the growing presence of New Australians that were ‘largely ignorant of country traditions and thinking and more concerned with pleasures [from the natural environment] than responsibilities [for fire management]’ (Canberra Times 1981c). Similarly, Murray and White (1995 p.248) later criticised New Australians for knowing ‘little about fire’, and thus actively ‘work[ing] against fuel reduction’ without acknowledging that communities were ‘not passive recipients of information’, but instead ‘make judgements about the information presented to them and actively interpret it within [their own] frames of reference’ (Patton et al. 2006, pp.107-108).

Later bushfire research acknowledged the need for a more integrative approach to fuel management that acknowledged residents’ and communities’ goals in fuel management. Working to understand the community’s values and goals that conflicted with fuel
management, such as an attraction to the natural aesthetic, produce (e.g., fruits) and/or shade provided by trees or shrubs, the recreational value of trees near houses (e.g., swings, tree houses etc.,) and trees’ role in attracting wildlife to property could produce greater community engagement. This tension between the intrinsic benefits of trees and vegetation and the resulting fire risk has been shown to be an issue affecting fire management in Australia (see CFA Strahan 2011a; CFA Sweeney 2009; or Whittaker & Mercer 2004), France (Ganteaume et al. 2003); and North America (Brenkert-Smith 2006; Martin et al. 2007; McGee 2011; McGee et al. 2009; Monroe et al. 2006). By appreciating these factors in official advice the state and fire services could have worked to encourage selection of trees and/or vegetation more resistant to fire, or to move such tree/vegetation a safe distance from the property. Instead, policymaking after Ash Wednesday remained committed to a Command-and-Control-like approach to community fuel management. The major changes included the introduction of the CFA (Amendment) Act 1983 (Vic) (s.10) and the Local Government (General Amendment) Act 1983 (Vic) (s.43), both of which underlined fire managers’ powers to require fuels around a property managed per central standards. These requirements did little to address the underlying problem of goal-incompatibility and thus perpetuated the state’s difficulties in motivating compliance through a Command-and-Control attitude to public safety due to the community subversion and resistance (Nickelsburg 1998).

6.3 Problems, Policies and Politics: Land Management

The problem of fuel management was closely linked to the problem of land management and development controls, as these problems combined to radically alter fire-fighting in Victoria. Uncontrolled post-war development in country Victoria had begun to strain Victoria’s emergency service organisations in the 1960s. During the 1962 Dandenong Ranges bushfires, for example, losses resulted from human settlements being located in areas of extreme risk and so densely populated that they rendered traditional methods of fire-fighting impracticable (Murray & White 1995). In the 1980s these issues became. The post-war demographic shift in Victoria had led to a ‘distressingly high number of homes’ being concentrated in the fire-prone Dandenong Ranges (Milton et al 1984 p.21). Milton and colleagues (1984 p.21) found ‘20,000 allotments […] in subdivisions which the authorities would now probably classify as inappropriate’ across the Dandenongs, Upper Yarra and Pakenham areas, with little provision made in development plans for fire-fighting. Wilson Ferguson (1984) raised concerns over the effects on fire-risk of land development policies in the urbanising of Mount Macedon, an area already at high-risk, while Miller and colleagues (1984 p.90) cited ‘important’ stakeholders’ concerns of the effects of ‘human habitation’ on the effectiveness of firefighting (see also Pyne 2014, loc.7951). These ‘important’ stakeholders were concerned also whether the ‘role and capability’ of the CFA was suitable to semi-rural and ex-urban firefighting (Miller et al. 1984, p.90). Miller and colleagues (1984 p.90) heard that the CFA’s ‘resources and techniques were generally suitable for strictly rural areas’, but the:
modern fire problems in semi-rural areas were considerably different from mainly grass-fire situations occurring in open country. The semi-rural problem was basically one in which concentrations of dwellings were set among areas of high fuel levels, produced by trees and thick vegetation. Often, houses were literally surrounded by such fuels. The difficulties of dealing with fast-moving, large scale fires in such areas were obvious. In fact, this was the crux of the Ash Wednesday problem in many of the severely-affected areas.

Smith\textsuperscript{57} (1995 p.39), agreed that the ‘old tactics [for fire-fighting], developed in grassfires, had been to go to the point of origin of the fire and work down the flanks’. Such a strategy was ineffective in the semi-rural/semi-urban environment because of the accompanying spatial changes, particularly in ‘hill country’ where fire-fighters ‘can’t get good access’ to either fires or fire-threatened property (Smith 1995 p.39). The importance of providing for fire-fighting activities in new settlements had been appreciated since Marshall’s (1930 p.10) complaints of poor decision making by councils in the provision of water mains during the 19th century, and so the failure to incorporate fire-fighting needs into development plans in the 20th century was a serious flaw in the state’s land development policies. As the areas most heavily developed during the post-Second World War “flight to the suburbs” were already known to have the ‘greatest […] potential for disaster’, it is fair to describe the state’s lack of controls on development or incorporating fire-fighting needs into plans as a failure that greatly increased Victoria’s vulnerability to fire (Blainey 2014; Monash University 1983; Murray & White 1995; Pyne 2014, loc.7948-8035). It is easy to suggest that these issues should have been addressed before Ash Wednesday but, due to the community’s and state’s goals to develop (fire-prone) country areas, it was unlikely that relevant policies would achieve support in the politics stream. The potential for policymaking for development controls was increased after the horrors of Ash Wednesday temporarily shifted public opinion but the combined effects of the need to rebuild destroyed communities and a resumption of the public’s desire to develop and reside in fire-prone areas meant little policy change was achieved in this area.

After Ash Wednesday it was recognised that Victoria’s fire problem required ‘more than fire prevention and suppression’, but also a mixture of asset-protection and vulnerability-reduction aspects such as the incorporation of ‘fire safety measures into building construction and siting guidelines’, improved ‘land-use control’ that included ‘disaster planning’, and ‘zoning mechanisms to either prohibit development or reduce […] development densities’ in the highest risk areas (Kanowski et al. 2005, p.79-80; Milton et al. 1984, p.21). Miller and colleagues (1984 p.55), likewise, offered a list of policy recommendations to address the problem of unsuitable development in fire-prone areas. These included land buy-back

\textsuperscript{57} Ivan Smith, Acting Group Officer at Upper Beaconsfield on Ash Wednesday.
policies to ‘ensure the provision of buffer zones and similar mitigation measures’, ‘legally designat[ing]’ fire-prone areas and requiring:

certain facilities such as assured water supplies, underground power lines, home shelter protection, home fire-fighting equipment, a local warden system, safe access/egress roads and designated areas.

(Miller et al. 1984, p.55)

Where necessary, Miller and colleagues (1984 p.55) recommended that ‘government regulation’ should be introduced to support these measures, and to place more general ‘restrictions on living in forest and other vulnerable areas, and fire-resistant building materials’. That these recommendations had already been made in the 1930s and 1940s by Stretton (1939; 1944; 1946) and Barrow (1945) underlined how little policy change had been achieved in the intervening decades.

The post-Ash Wednesday political context, however, was not conducive to the design and delivery of such policies. Miller and colleagues (1984 p.34) noted the ‘pressures and urgencies for re-housing’ caused by ‘crowded temporary accommodation’ after the disaster, with Dynes (1983 pp.659-660) and Ritchie and Gill (2007) supporting, to a degree, a quick ‘return to normal’ for communities due to the ‘therapeutic’ qualities of the ‘reestablishment of habitual actions’ post-disaster. These factors, together with the potential loss of political capital resulting from opposing community desires to ‘rebuid quickly’, would see destroyed houses rebuilt ‘largely’ without the requirement of conforming to building and zoning controls introduced after the initial construction (Milton et al. 1984, p.24). The result was that public pressure ‘prevailed’ over the need to reconsider development in areas of extreme fire-risk, or to enforce existing building or zoning codes because of expected ‘public opposition to such controls’ (Miller et al. 1984, p.21; Milton et al. 1984, p.24). Both Miller and colleagues (1984) and Milton and colleagues (1984 p.21) had anticipated such an outcome yet lamented that ‘fire protection considerations [again received] limited priority’ in the development/redevelopment of fire-prone areas.

There was precedence for using fire-related losses to justify vulnerability-reducing policies, as the Liberal state government had implemented a limited buy-back scheme for property in the high-risk Dandenong Ranges during the 1970s. The scheme was not extended by the Labor state government after Ash Wednesday due to fears of the political repercussions, and the financial outlay involved (ABC 2013a; 2015a; The Australian 2010a Barber 1981; Buxton in Teague 2010d). Thus, a buy-back scheme after Ash Wednesday, and a move towards a more vulnerability-reducing problem-frame, was unfeasible due to the politics stream (qua public opinion and economic feasibility; see Kingdon 2013). Labor’s unwillingness to legislate on the matter and/or prevent such reconstruction might have been promoted by the fierce public opposition to a trial program in Upper Yarra Shire where
redevelopment was held under a ‘six-month prohibition […] to enable studies to be undertaken on the future of the unsuitable subdivisions’ (Milton et al. 1984, p.22). Thus the Labor government’s reluctance to lead in redevelopment can be understood from a political-capital perspective but, at the same time, represents a major policymaking failure. It was well-understood that ‘[l]and use control and regulation of subdivision location and design can minimise the fire risk’ to Victoria but, due to political constraints, rebuilding of ‘virtual replicas’ of destroyed properties took place ‘in the same fire-prone positions, using fire-prone materials, and fire-prone house designs’ (Miller et al. 1984, p.65; Milton et al. 1984, p.21). As a result the post-Ash Wednesday reconstruction effort saw houses provided ‘in complete disregard of the inevitable fire which will someday consume [them]’ (Milton et al. 1984, p.22). This situation came about due to a ‘compromise between the existing, unsatisfactory situation of community displacement, the time-lag and political capital involved in a ‘proper orderly planning’ scheme, and, perhaps ultimately, the ‘rights of the owners who acquired the land’ to rebuild or develop such land (Milton et al. 1984, p.22).

The failure to implement zoning control in policymaking after Ash Wednesday was a result of the difficulties in balancing the goals of community rehabilitation and community protection. Clearly the post-Ash Wednesday rebuilding effort implies that the problem of policymaking after the fires did not favour a vulnerability-reduction frame, as an opportunity to implement such policies was passed over due to constraints in the politics stream. The limited Dandenong Ranges buy-back scheme in the 1970s was subsequently credited with preventing ‘tens of thousands’ of additional people from residing in an area of extreme fire-risk; if the post-Ash Wednesday policy-window had been used to extend such a scheme into other areas the reduction in Victoria’s vulnerability to bushfires could have been significantly decreased (Buxton in Teague 2010d). At the same time, the political and economic costs would have been huge so as to render any attempt to slow or control community reconstruction ‘impractical and too costly’ as policy (Milton et al. 1984, p.22). A mandatory buy-back scheme, or retrospectively imposing zoning controls on reconstruction or retroactively imposing such controls on land previously sold would cause significant political damage to the legislating party and massive financial cost. This cost would involve compensation for lands bought in good faith and would have to consider the wider costs, with Teague (2010d p.229) speculating that such schemes would have ‘harsh consequences’ for adjacent land-values.

The risks posed by (more or less) uncontrolled historic development in fire-prone areas and the state’s failure to implement effective zoning controls for fire-prone areas after Ash Wednesday made it vital to pass legislation to add fire-resistant standards into building codes. However, there was yet-more resistance in the politics stream to this idea due to intense public opposition. The risk created by ineffective historic development controls was magnified by the houses appearing ‘to have been constructed without basic fire protection measures’ prior to and after Ash Wednesday, with this a result of the state’s failure to legislate public safety in the face of public opposition (Milton et al. 1984, p.21, p.24). The public, generally, opposed such standards due to the perceived costs of additions to existing...
property or to construction costs, fatalism that nothing could prevent a house being lost to a fire and a prevailing ‘optimism that disaster will not occur’ even among those that had been impacted by Ash Wednesday due to the belief that fire would ‘not strike again in the same place’ (McGee 2011; McGee et al. 2009; Miller et al. 1984, p.65; Milton et al. 1984 pp.21-24; Ramsay et al. 1985; 1987). Thus, political constraints again undermined efforts to produce a more fire-resistant built environment in country Victoria after Ash Wednesday. Unsafe developments, and demand for such developments, were ‘continuing’ despite the losses of Ash Wednesday (Milton et al. 1984 p.21). In this context, Milton and colleagues (1984 p.25) urged both state and local government take a ‘stronger, more interventionist attitude’ towards building and buildings in fire-prone locations. A combination of an asset-protection problem-frame, a policy stream informed by militarism and military/ex-military personnel, and a politics stream marked by cost-related and public opinion constraints. Together these factors led the state government to eschew new policies for building controls until 1991, when the limited AS 3959-1991 bushfire-resistance standard was introduced (Leonard 2009).

6.4 Problems, Policies and Politics: Building Standards

The lack of policy for bushfire resistance in building standards contributed directly to structural losses on Ash Wednesday, and contrasted negatively with structural fire regulations (Ramsay et al. 1985; 1987). Provisions for structural fires were made under the Building Control Act 1981 (Vic), where it was required that buildings be made ‘reasonably safe from fire’, including powers to require ‘means of escape for the occupants of the building and for members of the public who may be using the building’ (s.133). Similarly, the CFA Act 1958 (Vic) (s.35) held public and private buildings to different standards, with the former required to provide for the ‘protection [from] fire of [buildings] in which numbers of persons are occasionally assembled’. Thus, there was precedent for including fire-related requirements into construction standards and legislation, yet Victoria failed to legislate specifically for bushfires. This was not a result of a lack of understanding of how to build so as to reduce the risk of bushfires. The importance of construction materials as a source of fire-resistance had been understood since the 1850s but considered ‘too bold a policy’ given likely opposition (e.g., Bendigo Advertiser 1859a), and the importance of cheap and simple retrofitting of ember-excluders scientifically proven in the 1940s (Barrow 1945). Barrow’s (1945) work on improving the chances of a structure surviving a bushfire was, in fact, so thorough that the advice was little-changed between Barrow and Lazarus and Elley’s (1984) recommendations post-Ash Wednesday.

As indicated above the role of defence in improving a structure’s chances of survival had been understood and communicated to the community since the 1960s (e.g., Good Neighbour 1962a; Luke 1961; McArthur 1968), with advice increasingly focused on the need for, and public’s ability, to stay and defend in the early 1980s (e.g., AWW 1980b). Yet, the state did
not yet transform this advice into policy. The reasons for this are not clear. There was a lack of longitudinal, comparative research of household outcomes between Barrow’s (1945) work and Ash Wednesday – Ramsay and colleagues (1985 p.7; 1987 p.49) identified Barrow and a Commonwealth Department of Housing Construction (1979/1983\footnote{Ramsay and colleagues (1985 p.7) note that the Department’s report was ‘not published fully until 1983’, but Ramsay and colleagues (1987 p.51) refer to a 1979 version of the report. Both dates are listed to avoid confusion.}) survey as the only works ‘worth noting’ in the area – but the inclusion of ember-exclusion and fuel management, as well as advice against (e.g.,) ‘Marseilles pattern-tiles’, imply that the means to reduce structural vulnerability to bushfire were well-understood. Ramsay and colleagues’ (1985; 1987) ignored the work of McArthur (1968) and even Ramsay’s (1979) own work that criticised the lack of data on structural outcomes during bushfires, with the former again demonstrating that the chances of structural survival were enhanced by fuel management and ember-exclusion.

The dearth of research into structural outcomes during bushfires led to some spurious bushfire-resistance advice being offered to the community. This included the ‘widely-held belief that white-coloured walls are beneficial’ to a structure’s chances of survival because ‘they reflect the heat of the bushfire better than dark-coloured ones’ (Ramsay et al. 1987, pp.50-51). The source of this ‘myth’ is not clear, but it might be inferred that as this was part of ‘advice given for building in bushfire-prone areas’ it could have come from an official source, or at least someone considered to have expertise in the area (Ramsay et al. 1985, pp.50-51). Ramsay and colleagues’ (1985; 1987) work refuted this ‘myth’, as well as the ‘exploding houses’ myth, and argued that houses could survive a bushfire. Ramsay and colleagues (1985; 1987) did not seek to investigate the relationship between personal and structural survival during bushfires, but did consider large dataset of structures \((n=1,153)\) affected by bushfires in the Otway Ranges during Ash Wednesday.

As Ramsay and colleagues’ (1985; 1986; 1987) works found good evidence for most of Barrow’s (1945) findings across a far larger dataset, it would be expected that this would be transformed into effective public policy for bushfire-resistant construction standards. Instead, the politics stream again curtailed public policy development, with public opinion opposed to changes due to fears over cost, and general fatalism and paternalism key constraints to effective policymaking (Milton et al.1984). The testimony before Milton and colleagues (1984 p.24) found that it ‘would cost an extra $3,000 to $10,000 for people to include specific bushfire protection in their houses’, which was considered a ‘significant cost when people are building’. Ramsay and colleagues (1987 p.51) and Miller and colleagues (1984) also found respondents that indicated bushfire-resistant modifications were “too expensive” for them to consider. Milton and colleagues (1984 p.24) argued that it might be possible to motivate investment in bushfire protections given the scale of losses on Ash Wednesday as a ‘failure to incorporate protection can result in much greater costs to the individual and society’, but problems of ‘apathy’, paternalism, and fatalism overcame the shock of Ash Wednesday. The ‘reluctance’ of the public to ‘heed any of the advice currently given’
regarding bushfire-safer design produced fatalism (e.g., “nothing could have saved my house”; “there’s nothing I can do really”) and paternalism (e.g., “if it’s necessary [to modify a house to resist bushfire] it would be in the building regulations”) among the public (Ramsay et al. 1987 p.51). In all three cases (cost, fatalism, paternalism) Milton and colleagues (1984) argued for greater state intervention but, considering constraints in both the policy stream (i.e., having an idea that is implementable) and politics stream (i.e., public opinion and the legislative devices available), the Victorian state government was reluctant to act.

It is also probable that the community’s reluctance to consider new bushfire standards was a result of a belief that the risk of fire was now quite low. McGee and colleagues’ (2009 p.316) work in America found that residents tended to believed that the risk of catastrophic fire risk was ‘lower’ after a major fire, for as long as the ‘next 20 to 100 years’. It seems likely that a similar attitude would emerge in Victoria. Therefore, and in line with Ramsay and colleagues’ (1985 p.7) recommendation, there was a clear need for ‘community education – a changing of attitudes and behaviour before another fire disaster strike’ to reduce the risk of yet more major incidents of loss of life during bushfire, married to enhanced building controls. Despite the consensus of the need for such controls in the post-Ash Wednesday reports building regulations relating to bushfire were not shored up until eight years after Ash Wednesday, through AS3959-1991, there was little to prevent rebuilding ‘brick-by-brick’ of fire-affected properties. As Ramsay (of Ramsay et al., 1985; 1987) was a key contributor to AS3959-1991 the issue of rebuilding was one of the few instances where the team resorts to emotive language in a largely analytic, scientific paper. Ramsay and colleagues (1987 p.51) used ‘[u]nfortunately’ in the context of the ‘reluctance’ of the public to make fire safety part of their rebuilding efforts, which resulted in rebuilt settlements not appearing to ‘have any greater chance of survival in future bushfires’ (Miller et al. 1984; Milton et al. 1984; Ramsay et al. 1987 p.51).

Milton and colleagues (1984), like Ramsay and colleagues (1985; 1987), recognised the likely public opposition to either mandatory or voluntary retrofitting of bushfire-resistant materials to existing structures, or to the inclusion of bushfire-resistant designs and materials in new builds. Because of this opposition, and the expectation of future fire-related losses, Milton and colleagues (1984 p.24) examined possible inducements that could be used to support the introduction of new building policies, or incentives to support a more voluntary scheme. These included ‘incentives and penalties’, such as ‘[t]axation concessions […] for capital expenditure which improved the bushfire resistance of houses and farm buildings’, or ‘grants or low interest-rate loans to cover the cost of incorporating fire protection measures’ (Milton et al. 1984, p.24). Similarly, insurance costs could be ‘adjusted so that houses built in certain fire-prone areas would be subject to higher premiums’, with reductions offered for ‘owners who constructed houses which were bushfire resistant or who maintained their properties free of undergrowth and forest litter’ (Milton et al 1984 p.24-25). However, these
suggestions were dismissed as impractical. It was considered ‘difficult to identify any major items which would be appropriate to relate to an insurance scheme or taxation provision’, while the ‘measures which could attract a rebate would need to be assessed by skilled inspectors, and the cost of undertaking this at frequent intervals would be quite significant’ (Milton et al 1984 p.24-25). Further, the reductions in consumer insurance cost ‘may be too small to provide an incentive for householders to undertake the necessary improvements’ (Milton et al. 1984 p.25). Thus, there was a push to use a mixed-method approach to building standards that would incorporate ‘regulation and legislation, supported by public education, to persuade people to make their houses safer and easier to protect’ (Milton et al. 1984, p.25). Such methods had been effective in the Liberals’ buy-back policy of the 1970s but appear to have not influenced policymaking after Ash Wednesday (The Australian 2010a; Buxton in Teague 2010d). Figures for houses constructed to resist bushfire after Ash Wednesday have not been encountered in the data collected. It might be inferred from the 2009 Victorian Bushfires Royal Commission’s (Teague 2010d, p.263) finding that 87 per cent of the structures destroyed on Black Saturday 2009 ‘had not been required to be built to any bushfire standard’ that bushfire resistance was not a prominent in post-Ash Wednesday design and construction.

Though the Victorian state government introduced bushfire-resistant standards for buildings in ‘bushfire-prone areas’ in 1991 the result might be described as limited and immature as policy (Leonard 2009, p.35). Per Leonard (2009 p.35) AS 3959-1991 focused exclusively on ‘three basic design principles’:

1. Prevent embers entering the building.
2. Prevent embers/debris fires igniting combustible materials on the exterior of the building.
3. Provide access for owners and fire-fighters to clean or extinguish spot fires under suspended floors and decks.

Principles for ‘radiant heat attack’ and ‘flame attack’ were absent from the standard, as was a definition of ‘what a bushfire-prone area is’ (Leonard 2009, p.35). Furthermore, the standards did ‘not require’ a site assessment of buildings (Leonard 2009, p.35). Thus, the ‘relatively brief document’ legislated for ‘only one of the three components of bushfire attack’, i.e. ember attack, with this a result of the limited scope given to the designers of the standard (Leonard 2009, p.35). The provisions against ember attack are, of course, a useful basis to producing better bushfire-resistance in structures but represent a weak response to the wealth of structural data accumulated by Ramsay and colleagues (1985; 1987) and by Wilson and Ferguson (1984) from Ash Wednesday, as well as the historical analyses of structural fire-resistance (e.g., Barrow 1945; McArthur 1968). Clearly, then, the production of a more bushfire-resistant built environment was not a policy priority for the state government after
Ash Wednesday. Neither was ‘ecological management’ through a revised approach to community fuel management, or more effective ‘zoning and other land-use management arrangements’ (Milton et al. 1984, p.11). The limited prominence given to these key aspects of fire management might reflect state fatalism, and the limitations imposed by the problem-frame and politics stream. Milton and colleagues (1984 p.11) considered it ‘inevitable’ that fire would again ‘threaten and damage people’s property’ and lamented, like most other post-Ash Wednesday reports, the failure to capitalise on an opportunity to utilise land and zoning controls, improvements to building standards and/or develop more effective fuel management strategies (e.g., Lazarus & Elley 1984; Miller et al. 1984; Ramsay et al. 1985; 1987). Instead of these policy solutions and problem-frames coming to prominence the Victorian state government focused on the means to improve and formalise the existing Civil Defence-like approach of training and educating the public to take responsibility for its own safety.

6.5 Problems, Policies and Politics: Public Safety

Good public safety outcomes during bushfires depend on communication. ‘Communication’ for Lazarus and Elley (1984 p.18) comprised both ‘short-term’ communication such as the warnings, ‘news and information [issued] on days of fire danger, and after a fire-front goes through an area’, and ‘long-term’ communication, such as the advice about fires issued annually to the public through large-scale community education campaigns to highlight ‘safer’ responses to fire. In light of the findings of the various post-Ash Wednesday reports it can be said that both kinds of communication posed unique problems for Victoria’s fire managers. Short-term communications taxed the resources of already over-stretched emergency service personnel, and relied on electrical and communications infrastructure that was prone to failure during bushfires. In Kingdon’s (2013) terms, there were technological constraints in the politics stream that limited policymaking options in this area. Long-term communications, similarly, relied on methods of training and education that were poorly associated with behavioural change (such as text-based or mass-media communications), and the utility of behavioural change itself was challenged (Britton 1986b; Dynes 1983; 1994; Fritz & Mathewson 1957; Kahneman & Tversky 1979; 1983; 2000; Katona 1951; Quarantelli 1954; 1984; 1897; 1988a; 1992; Sorensen 2000; Takeda & Helms 2006). Crucially, though, the problems of long-term communication and/or promoting new behaviours to respond to a disaster were not well understood in among disaster organisations, or by policymakers due to the prevailing militarism of disaster theory and practice, and the political power of military and ex-military personnel in senior positions within disaster organisations. Thus, what could have been key barriers to a policy focus on long-term communications – dissenting voices from policy communities, policy entrepreneurs, or politically-power actors – were not mobilised, with the result that ‘long-term’ communications came to prominence as a policy solution to Victoria’s bushfire safety problem.
Limited understanding of the deficiencies of a militarised approach to disaster planning and management was one of the ‘substantive consequences’ of disaster theory and practice seeking to emulate, and being directed by, military-like principles and personnel (Quarantelli 1988a, p.i). Indeed, militarism would continue to serve as a basis for disaster planning and management into the 2000 (Britton 2001; Drabek & McEntire 2003; Granger et al. 2014; Takeda & Helms 2006). Military-bureaucratic principles remained dominant as the appropriate way of organising for disasters, and for organising disaster organisations, with the upshot that emergency and disaster services sought to prevent panic and impose ‘social control’ through the use of Civil Defence-inspired training and education programs that considered the community in its civilian form “inept”, and thus sought to para-militarise at-risk populations (Dynes 1983, pp.657-659; 1994, pp.141-143; Martin 1984, p.186; Sabrosky et al. 1982) Takeda & Helms 2006, p.205). Where this was accomplished community members would ‘fit into’ and assist formal emergency service and disaster personnel by performing pre-trained roles and responsibilities as if all actors together were ‘parts of rational clockwork’ (Dynes 1983, p.658). Of course, short-term communications still comprised a ‘vital’ component in effective public safety strategies but were at the same time unreliable during peak crises (Miller et al. 1987, p.67; Lazarus & Elley 1984; Milton et al. 1984). Where long-term communications had pre-prepared community members for what to expect and how to respond to bushfires, though, it was expected that the imbued ‘self-reliance’ would make them less dependent on short-term communications that were often unreliable or inaccurate during peak crises (e.g., Gledhill 2003; 2008 Krusel & Petris 1992; Lazarus & Elley, 1984; Miller et al. 1984; Packham 1995). Improvements to both aspects of Lazarus and Elley’s (1984) conceptualisation of ‘communication’ were, then, popular among the post-Ash Wednesday reviews but the technological, financial and logistical difficulties of providing ‘short-term’ communications meant that ‘long-term’ communication problems received much greater prominence in the governmental and decision-making agenda after Ash Wednesday, and thus had the greatest impact on public bushfire safety policy.

6.5.1 Public Safety and Short-Term Communications

The post-Ash Wednesday reports agreed that ‘short-term’ communications were ‘vital’ to both public safety and the counter-disaster effort, but were difficult to provide during major disasters (Miller et al. 1984, p.67). Key components of community communications and warnings infrastructure (e.g., electricity, telephones, television, etc.,) were liable to failure due to fires. The problem was complicated further on Ash Wednesday (and, indeed, during major bushfires generally) by ‘traffic congestion’ on emergency services and disaster’s radio channels, ‘terrain characteristics’ that interfered with radio communications, and failures in ‘power supplies [accentuated by] lack of reserve power supplies’ among the fire services (Miller et al. 1984, pp.69-70). As a result, inter-organisational communication and communication with the community on the ‘location, movement and behaviour of the fire front’ was almost impossible (Miller et al 1984 p.67). These inter-organisational breakdowns
(and thus communication with the community) were accentuated by the unfamiliarity of key members of the disaster-relevant organisational network (DRON) with each other, each other’s procedures, and the struggles of non-disaster organisations to shift from their ‘routine role into an “extended” disaster role’ given ‘limitations’ in personnel, resources, facilities and prior training (Britton 1986b; Miller et al. 1984, p.43). Miller and colleagues (1984 p.76) were sympathetic to most organisations’ difficulties in this regard, but were highly critical of the Australian Bureau of Meteorology (BOM) for its failure to provide ‘[m]aximum warning lead time’, and accurate information, regarding a predictable wind-change (see also Lazarus & Elley 1984). Without this information the public and disaster services were placed at unnecessary risk, and thus Milton and Ferguson (1984 p.42) recommended the introduction of a fire-weather ‘specialist’ in Queensland, South Australia, Western Australia and Tasmania, and two such specialists in the ‘more fire-prone states of New South Wales and Victoria’.

Without accurate information and warnings of fire-spread the community had to rely on informal, emergent methods of communication. These included the use of a helicopter and loud hailer by emergency services, and police travelling to fire-threatened areas on motorcycles (Lazarus & Elley 1984). These methods were of some benefit to those that received the information, but left many unaware of the imminent threat to their safety and thus compromised the community’s ability to be ‘self-reliant’ (Lazarus & Elley 1984). Further, these informal and emergent means were prone to transmitting inaccurate information. Lazarus and Elley’s (1984 p.6-7) found some residents had been informed that the fires would impact their area ‘around midnight’, though the fires threatened from 21:00 onwards, while ‘many’ received no official indication at all of the fire’s expected impact. The advice provided through informal channels also directly contradicted senior CFA personnel’s pre-fire advice that the CFA ‘[did] not believe in evacuation’, as the police delivering warnings on motorcycles advised residents to evacuate (The Age 1983b; Lazarus & Elley 1984). The potential danger of such contradictory advice was accentuated by the faulty information regarding the wind-change, as the police’s call for evacuation came when the fire was ‘literally “on top”’ of the threatened population (Lazarus & Elley 1984, p.22). Of course, residents were generally ‘aware that the fire was in the[ir] immediate vicinity’, but received no formal advice from the state on ‘the real danger’ that the fires posed (Lazarus & Elley 1984, p.14).

To address these issues Miller and colleagues (1984 p.74) highlighted the potential for the media to play a greater role as a ‘counter-disaster resource’, though this raised concerns among emergency management personnel. In militaristic disaster theory the use of informal systems of communication was depreciated because of the tension between provision of “correct” and “incorrect” information (Dynes 1983 p.658-659). These concerns can be seen in Miller and colleagues’ (1984 p.74) stressing that care must be taken to avoid ‘any dissemination of media information which may be inaccurate and/or exaggerated [that might]
cause unwise or unnecessary reaction by the public’. These concerns were no doubt a result of both prevailing understandings of Ash Wednesday and Leonard and McArthur’s (1999 p.7) belief that ‘sensationalist media coverage of bushfire events’, particularly during the 1962 Dandenong Ranges, had a ‘negative influence’ on the public’s response to fires by presenting ‘families fleeing from their homes’ (see also Xanthopoulos 2008a). Instead, the media could be used as a tool for ‘widely and rapidly [disseminating] adequate, timely and accurate advice’ (Miller et al. 1984, p.74). There were obvious inherent tensions in the use of the media for this purpose, such as the need to provide ‘timely’ information ‘widely and rapidly’ that was difficult to reconcile with ‘accuracy’, as well as the utility of providing highly-localised information through mass-media communiques, and the effects of mass-media warnings and information on individual responses (Drabek & Stephenson 1971; Dynes 1983; Lindell & Perry 1992). Concerns might also be raised regarding where the information would come from, as the noted strain on emergency service resources and breakdowns in technology caused by the fires made communicating warnings and advice from the fire-front problematic. During Ash Wednesday there was ‘inevitable […] confusion’ in fire-threatened communities caused by both breakdowns in communication and public ‘apathy’ that left many unsure whether to ‘evacuate or stay with their houses’, and others were labelled ‘neurotic’ for having implemented their fire plans (Lazarus & Elley 1984, p.2, p.19; Miller et al. 1984, p.74, pp.124-125). Policy advocates suggested improving ‘public awareness’ of the fire threat through better planning and delivery of ‘weather warnings, fire danger ratings, notification of total fire-ban days and similar important data’ (Lazarus & Elley 1984, p.2, p.19; Miller et al. 1984, p.74, pp.124-125). These ideas informed strategy, but not policy, after Ash Wednesday, with improvements generally hindered by the unfeasibility of improvements to disaster-relevant organisations equipment.

Improvements to the emergency services’ and disaster-related organisation’s communications equipment were not forthcoming after Ash Wednesday. A Victorian Auditor General Report (Vic 1992a, p.59) found ‘very limited action had been initiated’ to replace obsolete and provide additional equipment due to cost between Ash Wednesday and the early 1990s. This failure represented something of a violation of the Emergency Management Act 1986 (Vic), which was introduced to ensure that ‘all agencies work in concert to deliver effective outcomes for Victoria’ (Esplin et al. 2003, p.17). A Federal-level plan to ‘change radio transmission frequencies across Australia by 1998’, announced in 1991, further limited the possibility for upgrading Victoria’s ‘insufficient’ disaster-communications apparatus (Vic 1992a, pp.59-60). Until the Federal government’s plan was implemented it was recommended that Victoria’s disaster-relevant organisations should ‘introduce a more strategic approach to improving its communications network’, due to the expected ‘total replacement’ of the network in 1998 (Vic 1992a, pp.59-60). Further, little progress had been made in integrating the CFA’s communications network with other disaster- and non-disaster-relevant organisations due to different equipment relying on ‘different radio channels’ (Vic 1992a, p.63). It appears that communications, either with communities or with other disaster organisations, did not receive much policymaking attention after Ash Wednesday.
The 2003 House of Representatives Select Committee into Recent Australian Bushfires (Nairn et al. 2003, p.ix) found that across Australia ‘better communications’ and communications infrastructure were still necessary between organisations, and between organisations and the community (see also Esplin et al. 2003). Nairn and colleagues’ (2003 pp.122-129) Committee heard concerns regarding ‘problems in coordinating and tasking fire-fighting assets in the field’, including among the CFA Brigades that led to a lamentable situation in which one ‘strike team’ was ‘under-resourced for the task at hand’ while another ‘was enjoying a cool swim in the creek half an hour away’. The Select Committee also noted dangerously inaccurate and late advice provided to community members by both the CFA and the Department of Sustainability and Environment, including situations where public advice shifted in half an hour from ‘the likelihood of [a] fire reaching [a] valley was low’, to ‘the valley was too dangerous for CFA or DSE crews to enter’, and advice delivered hours too late that the CFA would not be able to support local landholders fire-fighting activities (Nairn et al. 2003, pp.128-130). Assuring, though dangerously contradictory advice was also delivered by individual CFA Brigades to residents, including promises to assist residents that were later withdrawn, either tacitly or explicitly, with no explanation (Nairn et al. 2003, pp.129-130).

Against this highly critical view Esplin and colleagues (2003 p.xxxii-xxxiii) noted ‘generally very positive assessment[s]’ of the communications between community and fire agencies during the 2002/2003 bushfire season. The CFA’s increased use of regional television stations and ABC Local Radio, a response to the Ash Wednesday criticisms of short-term communications, were considered ‘particularly effective in keeping affected communities informed of the progress of the fires and the actions that they need to take to prepare themselves’, though there were noted difficulties in ensuring that all communities remained informed of their risk. A report commissioned for Nairn and colleagues (2003) Select Committee likewise found ABC Radio to have performed well in communicating advice and warnings to community members. As a result it can be said that the post-Ash Wednesday reports did produce some improvements through greater use of the media to provide the community with information, warnings and ‘clear direction on what action should be taken’ in response to fires (Miller et al. 1984, p.84). By better informing people of where fires were, and when they were expected to impact settlements, the risks of people not knowing ‘what to do’, and reacting in ‘panic’ could be reduced through effective short-term communications (Lazarus & Elley 1984, p.1; Miller et al. 1984). The amount of information that could be conveyed as to what people should do through such mass-media mediums, though, was limited, especially during major fire events when complex decision-making tasks had to be completed in a short amount of time. Therefore, rather than constituting safer public responses to fire in and of themselves short-term communications were intended as a prompt for those at-risk to implement the lessons learnt through the state’s long-term communication programs.
6.5.2 Public Safety and Long-term Communications

Long-term communications refers to the training, education and advice provided before a fire threatens a locality that seeks to promote safer responses if/when a fire does threaten (Lazarus & Elley 1984). This form of communication is essential in Civil Defence-like counter-disaster strategies, as it is analogous to the training provided to Civil Defence volunteers. In Victoria’s public bushfire safety strategy, however, the post-Ash Wednesday reports noted serious deficiencies in the means and content used to train and educate the public. Milton and colleagues (1984 pp.27-28) highlighted the ‘reliance on the distribution of printed material on a large scale’ as a key flaw in Victoria’s Civil Defence-like public safety strategy, with this evidenced during Ash Wednesday by the large number of residents unaware of how to respond to the fires (see Krusel & Petris 1992; Lazarus & Elley 1984; Miller et al. 1984). Further, Milton and colleagues (1987 p.27) criticised the persistence of this failure, having found that:

> essential knowledge concerning survival in a bushfire, protecting houses and property and the regulations about fire control [was] widely distributed, and every major fire is followed by a small flurry of new publications. Despite these efforts there is little public awareness of the fire threat and action which should be taken to reduce the threat.

It was generally agreed that improving long-term communications would require that ‘fire control authorities […] improve the skills and resources of their education officers, and […] make more use of public education specialists’ and properly evaluate the effectiveness of the programs (Lazarus & Elley 1984; Miller et al 1984; Milton et al 1984 p.28). Milton and colleagues (1984) and Miller and colleagues (1984) suggested more interactive, nuanced approaches to improve the success of delivering the core messages of the CFA’s training and education programs to the community. For Milton and colleagues (1984 p.28) ‘involv[ing] people in field days or displays and lectures at the local level’ would have produced a greater reaction than the mass-publication based approach, while Miller and colleagues (1984 p.65) suggested using ““ad-men and jingle-writers”” to craft a fire-safety message and education programs that were both concise and engaging. The use of modern marketing techniques and customer-survey-style research would, it was hoped, allow for greater understanding of the public’s complaints of existing bushfire training and education programs that the ‘type of information provided [was] not cover[ing] those areas which the public considers relevant to their needs’, and the most effective means to deliver such information (Milton et al. 1984, p.27).
Other strategies apart from the mass-publication approach already existed in the policy primeval soup, including the use of ‘audio-visual materials’ such as a Bank of New South Wales-produced bushfire-safety video (Milton et al. 1984; Western Herald 1970a). That Milton and colleagues (1984) had to recommend greater use of audio-visual materials is curious given that it was an old idea. The Forests Commission’s Bush Fire Prevention Weeks from the 1930s had used lantern slides in theatres, with these found to be both popular among the public and credited with reducing careless or malicious uses of fire (FCV 1930a-1939a). Stretton (1939 p.25) had, similarly, recognised that ‘American-style’ use of ‘various attractive forms of visual and aural education’ produced a ‘marked lessening of [fire] outbreaks’, and recommended these over the ‘dull lecture form of education [that would] fail’ to change public attitudes and/or behaviours. Stretton (1939 p.25) recommended ‘[s]lides and pictures in picture theatres be shown at the beginning of the summer and on the eve of holiday seasons, together with instructions as to the penalties for lighting fires illegally’ as an effective means of reducing careless or malicious uses of fire. Thus, a recombination of policy ideas already existing in the policy primeval soup was again brought to the fore and fit with a new, pressing problem: the need to engage a large and diverse audience with a key public safety message.

The unengaging nature of the training and education materials used, together with the materials’ failure to offer locally-appropriate information, were considered explanations for ‘large numbers’ of people’s failure to ‘take heed of the authorities’ messages’ (Miller et al 1984, pp.64-65; Milton et al. 1984 p.27). Milton and colleagues (1984 p.27) appreciated that the CFA’s materials offered a ‘clear and accurate message’, and were ‘widely distributed’, but noted that Ash Wednesday had shown these materials struggled to produce desired behaviours in both community fire-preparedness and fire-response. Despite the CFA’s providing ‘essential knowledge’ on ‘survival in a bushfire’, and ‘protecting houses and property’, community members complained of their need for ‘information about local disaster procedures’; signals to evacuate and information of ‘where to assemble’; the identities of ‘local disaster authorities and personnel’; ‘who to report to for directions’; and ‘where to get reliable information about the progress of fire’ (Milton et al. 1984, p.27).

Were these issues address, it was assumed that the CFA could build community ‘receptivity’ to training and education materials (Miller et al. 1984, pp.65-67). Miller and colleagues (1984 pp.65-67, p.123) considered building ‘receptivity’ to be a process involving a ‘constant, relentless effort, plus subtlety of presentation’. Such ‘constant’ effort was required because, per disaster’s predominantly military-influenced paradigm, pre-fire ‘public awareness and education’ were considered vital to good fire-related outcomes (Miller et al. 1984, p.65). The CFA’s (CFA Strahan 2011a p.8) later assumption that ‘awareness of the risk will motivate people to act’ was already prominent in the arguments supporting improvements to the Authority’s community training and education schemes. ‘Mitigation and preparedness’ activities, for example, were considered ‘firmly linked’ to awareness and education (Miller et
al. 1984, p.65). Perhaps more importantly, however, it was necessary to keep up ‘constant’ effort to train and educate the community because the state could no longer guarantee community protection during bushfires. If the CFA did not make such constant efforts to inform, train and educate the community it was expected that community members *qua* ‘inept civilians’ would inevitably make bad survival choices, such as those that had exposed them to risk on Ash Wednesday (Dynes 1994, p.142). These assumptions were ostensibly confirmed in the two remaining post-Ash Wednesday reports: the works of Wilson and Ferguson (1984) and of Krusel and Petris (1992) where the major loss of life on Ash Wednesday was linked to poor decision-making on the part of individuals.

### 6.5.3 Public Safety and Bad Decisions

The preceding post-Ash Wednesday reports have, generally, focused on the risks faced by residents and the means to reduce these risks in future fires. Wilson and Ferguson (1984) and Krusel and Petris (1992) moved away from this by analysing why people died on Ash Wednesday, and what the deceased could have done to prevent this. These two works could be jointly-summarised as indicating that ‘vulnerability’ *qua* physical, intellectual, mental or other impairment, lack of understanding, and/or the individual’s bad decision-making, was the key contributing factor to their deaths (Wilson & Ferguson 1984; Krusel & Petris 1992). Wilson and Ferguson’s (1984 pp.232-234) work considered the effects of bad-decision making with a nod to ‘vulnerability’ by arguing that only ‘able-bodied’ persons should attempt to Stay and Defend, while Krusel and Petris’ (1992 p.14) focussed more on the impairment/lack of understanding aspect which in turn is used to explain poor decision-making. Neither work, then, demonstrated conclusively that Stay or Go was a safer survival strategy than late evacuation when threatened by bushfires. Instead these surveys, like subsequent research into the merits of Stay or Go, conform to Teague’s (2009a p.190) finding that bushfire research either establishes ‘how buildings ignite and are destroyed, and the significance of occupants in building survivability’ (Wilson & Ferguson 1984), or the ‘circumstances in which civilians’ were killed during Ash Wednesday (Krusel & Petris 1992).

Wilson and Ferguson (1984 pp.232-235) constructed an argument for bad decision-making as the leading cause of death on Ash Wednesday by combining the low number of attended houses lost during the fires with the large number of deaths occurring outside. This led to their conclusion that houses act as ‘relatively safe havens during the passage of a fire’ for ‘adequately informed’, ‘mature, able-bodied residents’ to ‘minimise loss of life’ and that if residents took on a minor fire-fighting role, they could ‘probably […] save houses’ (Wilson & Ferguson 1984, pp.232-235). Of the 53 attended houses at Macedon only 12 were lost, equating to a survival rate of 77.36 per cent. This figure was inflated to ninety per cent when the caveat that those in attendance at a property should be ‘able bodied’ was added to the
analysis (Wilson & Ferguson 1984, p.232). Wilson and Ferguson (1984: 232) also found that
the survival rate of unattended houses was inflated by structures that ‘were ignited, but which
were extinguished [by ‘neighbours, fire brigades, returning occupants, and others’] after the
fire front had passed’. As a result the survival rate for unattended houses is bolstered by 54
houses that would otherwise likely have been destroyed. If the ignited houses had not been
saved the survival rate of unattended houses would have stood at 29.61 per cent; through the
assistance of neighbours and fire brigades (etc.,) the survival rate of unattended houses stands
at 43.64 per cent. To add to this Wilson and Ferguson (1984) found that 31 of the 46 deaths
in Victoria on Ash Wednesday, including 13 fire-fighters, died while ‘in vehicles’ or ‘near
vehicles or on foot’, while 15 deaths occurred inside or near houses. Therefore, Wilson and
Ferguson (1984 p.235) argued ‘[t]wice as many deaths occurred in vehicles or out in the
open, than inside or near houses’, thus indicating the relative safety of houses relative to
vehicles/being out in the open and the need to prevent the public from making the bad
decision to evacuate late.

Krusel and Petris’ (1992 p.3, p.6) call to for the CFA to take the lead in ‘establishing and
supporting’ community groups to ‘take responsibility for their own [community’s?] bushfire
safety’ might reflect the nature of the ‘vulnerabilities’ of the people in their sample. Krusel
and Petris’ (1992 p.6) coding framework saw the Ash Wednesday victims grouped as those:

- Category 1: [Having] recognised the real threat to their safety with enough
time to save their lives, but chose an ineffective survival strategy;
- Category 2: [Having] not recognised the real threat to their safety in time
to implement an effective survival strategy; and
- Category 3: [Being] physically incapable of implementing an effective
survival strategy.

Krusel and Petris’ (1992) found almost all victims – 25 of 32 civilian deaths considered –
belonged in the first and second categories. Thus, if subsequent public safety policy were to
address people’s bad decision-making (i.e., choosing an ineffective survival strategy) and
improve warnings and advice it might be expected that the number of future bushfire-related
deaths would decrease. Hill (1998 p.34) would later describe these as ‘vulnerabilities’ created
due to a ‘lack of understanding’, lack of ‘recognition’, and lack of ‘capability’. The first two
of these ‘vulnerabilities’ would conform well with, and be responsive to, Lazarus and Elley’s
could be addressed through ‘long-term’ communications building understanding of more
effective survival strategies, while a lack of recognition could be addressed through better
communication of threat-warnings which, in theory, would be supported by long-term
communications that encouraged and directed the community to implement an effective
survival strategy. Further, it was recognised that the remaining 7 deaths noted in Krusel and
Petris (1992) survey, those that occurred due to the victim being ‘incapable of implementing an effective survival strategy’, represented a particularly vulnerable segment of the community that could not Stay and Defend during bushfire. As a result, Victoria’s public safety strategy shifted away from advice to Stay and Defend towards a recommendation that those who were not physically or mentally able to Stay and Defend should leave ‘early’ – the day before or the morning of an expected fire impact – and thus, building on the findings from other post-fire sources, advice to Stay and Defend evolved into the Stay or Go approach to public bushfire safety.

### 6.6 Evidence-Based Policy?

The analysis of the post-Ash Wednesday reports, research and investigations found that most (e.g., Krusel & Petris 1992; Miller et al. 1984; Ramsay et al. 1985; 1987; Wilson & Ferguson 1984) supported Stay and Defend or Stay or Go as a public bushfire safety strategy, often in contrast to late evacuation. The work of Krusel and Petris (1992) in particular is credited with producing a ‘broad paradigm shift’ in Victoria’s bushfire management strategy by noting both the potential for improved outcomes through a community-group based approach to fire, and for drawing attention to those that were ‘incapable’ of Staying to Defend (Packham 1995 pp.41-42; Rhodes 2009). These ideas were supported by Wilson and Ferguson’s (1984) ‘seminal’ work, that showed attended houses were significantly less likely to be damaged or destroyed by bushfires, and that fewer deaths occurred inside or near houses than in vehicles, near vehicles or on foot (Packham 1995, p.39; Roberts et al. 2004). Ramsay and colleagues (1985; 1987), meanwhile, confirmed most of Barrow’s (1945) long-overlooked arguments of the potential to build or modify houses to resist bushfires. These policy molecules were linked together with the long-held belief in the utility of Stay and Defend as advice, to constitute an evidence base for the selection of Stay or Go as Victoria’s public bushfire safety policy.

Outside of these investigations into Ash Wednesday and earlier works on the 1967 Hobart/Black Tuesday bushfires there were few studies of either structural or personal survival during bushfires (e.g., McArthur & Cheney 1967; McArthur 1968). The profound effects of the post-Ash Wednesday reports on Victoria’s bushfire management policy might, therefore, be surprising as they constitute anecdotal evidence that does not decisively establish the safety of Stay and Defend or Stay or Go vis-à-vis late evacuation. Wilson and Ferguson (1984 p.235) attempt a limited comparison of their findings of the ‘location of bodies’ on Ash Wednesday with McArthur and Cheney’s (1967) findings from Hobart/Black Tuesday and, despite McArthur and Cheney’s finding that most deaths occurred inside a house, maintained that ‘mature, able-bodied residents’ could ‘minimise loss of life, and probably save their houses by staying within the safety of their homes’. Indeed, Wilson and
Ferguson’s (1984) findings regarding the dangers of being in or near a vehicle or on foot during a bushfire have been cited by Handmer and Tibbits (2005 p.85) as indicating that the ‘clearest lesson from [the Ash Wednesday fires] was that late evacuation is dangerous. Twice as many deaths occurred in vehicles or out in the open, than inside houses’. Yet a closer view of Wilson and Ferguson’s (1984 p.235) work shows that the danger of being in or near a vehicle or on foot has been skewed by the deaths of 13 fire-fighters during the 1983 Ash Wednesday bushfires that were ‘in vehicles, or out in the open’. When civilian deaths alone are considered the variance between Ash Wednesday victims found inside or near houses ($n=15$) and those found in or near vehicles or on foot ($n=18$) drops to three. A similar, deeper reading of Krusel and Petris’ (1992) work finds that at least four of the deaths found inside or near a vehicle or on foot were not related to a decision to evacuate late, but rather two individuals attempting to take photographs of the fires, and another two attempting to muster stock. Finally, the evidence used to support the argument that Stay and Defend or Stay or Go was a safer response than late evacuation lacked the comparative data necessary to support such claims. There was no attempt to quantify the proportion of fire-threatened residents – both survivors and victims – that attempted each survival strategy. Without data as to the total incidence of attempts to (e.g.,) evacuate late it is difficult to establish just how dangerous this response is. Ramsay and colleagues (1985 p.3) suggested that only ‘1 per cent of houses remained occupied’ throughout the fires. The low level of variance between deaths occurring inside or near a property and those occurring in or near a vehicle or on foot, together with the small sample size of residents remaining to defend their property suggests that staying to defend was a risky survival strategy on Ash Wednesday. Thus, the evidence from Ash Wednesday used to support the idea that late evacuation is the most dangerous response to fire was far from unambiguous, and yet these reports helped establish Stay or Go as Victoria’s public bushfire safety policy. To explain this, the next chapter analysed the selection of Stay or Go in the context of the developmental pathway of Victoria’s community, and a conjunctural event between the fire services and community in the 1960s which led the militaristic principles and assumptions informing the fire services to be applied to the community’s roles and responsibilities in fire management. This led to the adoption of the Civil Defence-like training and advice to Stay and Defend in the 1960s and, after Ash Wednesday, to the Stay or Go policy.
6.7 Conclusion: Ash Wednesday and Bushfire Safety

The preceding analysis identified the 1983 Ash Wednesday bushfires as an opportunity for change in Victoria’s bushfire management policy (i.e., ‘opened a policy window’), with this evidenced by the debate and discussion of alternative problem frames, policy alternatives, and political constraints. It has shown that the dominant problem frame – asset-protection – remained in place, and established how constraints in the politics stream limited the alternatives available to policymakers. This is considered an outcome of the militarised culture of disaster-relevant organisations leading to the problem of public safety in bushfire and evidence regarding appropriate survival strategies being considered through a lens tinted by the dominant military-inspired paradigm. The long association between disaster-relevant and military organisations, and the influence of the latter over the former in the preceding chapters, with this a particularly porous theme throughout the work. In Victoria and Australia the paramilitary culture of disaster-relevant organisations, including the CFA, is argued to have allowed the principles and assumptions guiding Victoria’s bushfire management strategy to avoid scrutiny after Ash Wednesday. The deficiencies in the methods used to promote a Civil Defence-like attitude towards bushfire among residents in fire-prone communities were acknowledged, but the suitability of community training and education schemes to behavioural change and the associated social science critiques of a Civil Defence-like approach to public safety were ignored. Instead, the ambiguous evidence from Ash Wednesday was marshalled and understood in a way that almost completely vindicated and advanced the core tenets of Stay and Defend as Victoria’s public bushfire safety strategy.

The one exception to the current of research Ash Wednesday’s confirming utility of Stay and Defend as a public safety strategy came from Krusel and Petris’ (1992) third, ‘incapable of implementing an effective survival strategy’ cohort. Krusel and Petris (1992) accepted the other tenets of Stay and Defend – that houses could withstand bushfires; that people could increase the chances of a house surviving a bushfire by preparing it pre-fire and actively defending it during the fire; that the community could be trained and educated to imitate firefighters; and that late evacuation was a more dangerous response to fire than staying to defend – but argued that this cohort’s safety could not be assured under the Stay and Defend strategy. Wilson and Ferguson (1984), likewise, noted the effectiveness of Stay and Defend but added the caveats that only ‘able-bodied’ and properly prepared individuals should implement such a strategy. These arguments led to the maturation of the Stay or Go policy in Victoria. This combined elements of the existing Stay and Defend strategy with advice to evacuate incapable or vulnerable people. The solutions advocated after Ash Wednesday, then, continued the existing emphasis on community self-reliance as a bushfire management strategy, and the associated para-militarisation of the community’s roles and responsibilities in bushfires. It was the next stage in the evolution the decades-long refinement of a Civil Defence-like approach to public safety that followed from the progressive militarisation of Victoria’s fire services, and disaster planning and management theory and practice more
generally. After the initial, informal attempts to use training and education to instil new behaviours were shown to be deficient by Ash Wednesday, the next logical step was to review, fully formalise and militarise the training and education programs in light of the findings from the post-Ash Wednesday research and reports. This argument is developed in the next chapter, where the Victorian state government’s and fire services’ efforts to control and define the community’s roles and responsibilities in fire management are explored from the founding of the state in the 1850s through to the 2009 Black Saturday bushfires. The chapter also goes deeper into both the similarities between the principles of Civil Defence and CFA’s post-Ash Wednesday training and education programs and the ambiguous – and perhaps tenuous – evidence used to support the Stay and Defend and subsequent Stay or Go public safety strategies. Instead of evidence the chapter reflects on Stay and Defend/Stay or Go as the result of post-Second World War conjunctural events between the state’s fire services and community developmental pathways, and events in the socio-economic, demographic, technological, political and cultural antecedent pathways that led Victoria’s fire services to work towards developing the community as a self-reliant fire-fighting resource.
Chapter 7: The Foundation for ‘Stay or Go’

This chapter builds on the previous analyses of Victoria’s fire services and the principles underpinning Victoria’s bushfire management strategy by considering how formalisation, technologization, centralisation and militarisation affected the community’s roles and responsibilities in fire management. These processes are shown to interact with socio-economic, demographic, cultural and political change to divert the community’s role and responsibility in fire management away from one focused on pre-fire mitigation and prevention to one of self-protection through household-level fire-fighting activities. The transformation is linked to major fires, fire-related losses, and the organisational and operational lessons learnt from World War Two. These conjunctural events drew into focus the deficiencies of the existing fire service relative to a state-managed one in protecting Victoria’s assets, and fostered the ever-stricter definition of community roles and responsibilities in fire that resulted in the adoption of a Civil Defence-like approach to public safety. The current chapter will highlight the socio-economic, demographic, cultural and political factors that prompted such change by creating conditions conducive to the selection of formalisation, centralisation and militarism as guiding principles for Victoria’s fire services. The need for a revised fire service reflected the growing vulnerability of Victorian assets (people and property) to fire, and the changed fire management roles and responsibilities of ‘community’ members resulting from wider socio-economic, demographic, cultural and political change in fire-prone areas.

The chapter built on the ideas developed in the theoretical framework that disasters are not just ‘Acts of God’, but ‘Acts of Human Intervention’ that follow from the ‘historical construction of risks’ (see this thesis pp.47-48 and Bankoff 2012, p.38; Clausen et al. 1978, pp.61-62; Davis 1998, p.38, p.54; Hewitt & Burton 1971, pp.25-26; Quarantelli 1992 pp.8-9). The result was a conceptualisation of the problem of fire in Victoria as a product of both the state’s unique fire-proneness and stakeholders’ desire to develop and exploit fire-prone areas for social, economic, cultural or demographic reasons. Predictably the increased utilisation of hazardous places increased vulnerability to the hazard and, occasionally, led to serious losses. In line with Bankoff’s (2012 p.37) concept of the historical construction of risk the section focused on the historical decisions that made Victorians and Victorian assets vulnerable to fire, the factors that motivated such decisions, and the strategies developed to mitigate this vulnerability.

The thesis identified four key ‘eras’ in the period c.1850-c.1979 where socio-economic, demographic, cultural and political factors built up vulnerabilities to fire that led to a redefinition of community fire management roles and responsibilities. The first era considers the period c.1850 through to the Fire Brigades Act 1890 (Vic), where ‘quiet, pastoral’ and
sparsely populated Victoria is inundated by new migrants drawn by the discovery of gold (Murray & White 1995, p25). As Victoria’s gold supply held steady the state enjoyed its first ‘golden age’ as the predominantly tent-based settlements transformed into more permanent, urbanised communities (Marshall 1930; Murray & White 1995). Together with a burgeoning agricultural sector and wool exports country Victoria’s socio-economic and demographic circumstances changed as the assets at risk of fire necessitated a shift away a loss-reduction strategy based principally on insurance and financial compensation, to one where assets were protected by fire services (Geelong Advertiser and Intelligencer 1854a). As country Victoria continued to prosper and grow in the second half of the 19th century the need to better-equip and organise fire service grew, with the state responding through an 1885 Select Committee upon the Fire Brigade System (Vic 1885), and then to the Fire Brigades’ Act 1890 (Vic). This process created, and then increased, a conceptual and statutory distinction between the roles and responsibilities of Victoria’s volunteer fire services and the wider community. Beginning in the mid-1850s the Victorian state government had restricted the community’s rights to use fire through Acts of Parliament, most notably the Act to Restrain the Careless use of Fire 1854 (Vic) and Act to Prevent the Careless use of Fire 1858 (Vic). The resulting centrally-defined restrictions included in these Acts were designed to increase the community’s role and responsibility in preventing and mitigating fires. However, due to tensions between local and central values and goals saw these Acts rescinded amid concerns that the community was failing to fulfil its essential prevention/mitigation role in fire management (e.g., The Star 18589; Weekly Times 1883a).

The second era identified spans the Fire Brigades’ Act 1890 (Vic) through to the 1939 Black Friday bushfires. The period sees more divergence in roles and responsibilities between Victoria’s fire services and the ‘community’ that followed from new fire-related legislation that placed stricter regulations on community rights to use fire, and requirements for community fuel management. These centrally-defined standards again caused tensions between local socio-economic goals, and the state government’s goal of reducing carelessly- or maliciously-lit fires. The Forests Acts (Vic), in particular, created enmity between commercial interests and the state through restrictions on fire-lighting and residential and/or economic development in forested areas (for a review see FCV 1921a p.9). At the same time residents’ performance of their legally-required fire prevention and mitigation activities was lax to the point of constituting a major fire risk (Stretton 1939). The Forests Commission focused on financial and other penalties to address these tensions, and utilised softer social methods to educate community members of their important role in preventing and mitigating fires.

Due to the state government’s limited support of the Forests Commission and other fire management services these methods had a limited effect on reducing economically-motivated, malicious or careless uses of fire. This was particularly a problem among grazing and

forestry-related stakeholders who would willingly flaunt fire restrictions – and go against their assigned roles and responsibilities in fire management – by maliciously using fire to open new areas for grazing or logging, or to rejuvenate pasturanelands. Other increases in human activity in fire-prone areas, such as those related to settlers, tourists, and sportspeople and a growth in country Victoria’s population further increased vulnerability to fire. These problems were accentuated by state policy. The Forests Act 1918 (Vic), for example, required the Forests Commission open areas of State forests for residential development. When these events combined with dangerous weather conditions during the 1938/39 Black Friday bushfire season the result was 71 deaths and the loss of hundreds of buildings (COAG 2004). These losses followed other bad fire seasons in 1926 and 1932, which resulted in 60 and 9 deaths respectively, and drew attention to the need for legislation for public safety infrastructure in fire-prone areas. However, friction’ from the private sector and a lack of persistent public pressure for shelter provision allowed the idea to lapse (The Age 1932a; Aminzade 1992; Kingdon 2013; Stretton 1939). Public outrage at the fast-paced sequence of linked events – three fires producing significant loss of life in 13 years – together with the declining economic and political power of actors and interests that had been active in blocking shelter-related legislation produced major change in Victoria’s fire-related policies (COAG 2004; Collins 2009). The Victorian state government was pressed to ‘do something’, and to take some responsibility for public safety during fires, with this manifest through the requirements of dugout shelters in the highest-risk areas under the Forests Act 1939 (Vic).

The policymaking activities of the state government hint at the declining political power of agriculturalists and millers, which reflected the socio-economic difficulties of fire-prone country areas considered in the third era. The third era focuses on the second Victorian ‘Golden Age’ from the end of World War Two through the late-1950s. The combined effects of the 1929-1939 Great Depression and a ‘disastrous’ fall in prices for agricultural produce threatened country Australia’s socio-economic vitality constituted an ‘ominous trend’ of rural-to-urban migration that suggested an ‘irreversible downward spiral’ for country areas (The Examiner 1948a; Infrastructure Victoria 2016a; Ritchie 1945; Whitford & Boadle 2008, p.526). These problems gained policymakers’ attention and led to a Rural Reconstruction Commission (1944-1947) tasked with investigating and addressing the ‘structural changes’ and declining ‘country’ values and ‘self-reliance’ in rural Australia, including those related to fire management (Ritchie 1954, pp.166-171; Whitford & Boadle 2009). These latter issues were accentuated by the decades-long problem of ‘communal inertia’ in fire management (that might better be understood as conflicting goals leading to inaction), which fire managers had been ‘bashing [their] head[s] against […] for years’ (Brennan 1979, pp.84-85).

Local tensions were not helped by the introduction of the CFA which saw central plans and goals receive prominence in fire management plans over local concerns (Alexandra and Yea Standard and Yarck, Gobur, Thornton and Acheron Express 1947a; Cobram Courier 1947a). The Age (1947c) warned that Victorians could not ‘write off the big fires of the past

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60 Named for Prime Minister Chifley’s promise of post-war prosperity for Australia.
as something finished and done with’ while ‘[l]ack of men, money and education’ made the ‘puny forces’ of fire management ‘powerless’ in protecting assets against fires. There was a perception that greater community responsibility in fire management was required yet, without acknowledgement of the validity of their goals and values, locals did not develop a ‘sense of social responsibility’ for the fire problem (Stretton 1944, pp.3-4). Centralisation and militarisation of fire management did little to resolve the old tensions between community inaction and alienation from the fire problem, and thus careless or malicious uses of fire continued as wider socio-economic, demographic and cultural circumstances increased the vulnerability of country areas to fire (The Age 1947c; Stretton 1944, pp.3-4). While few of the Rural Reconstruction Commission’s recommendations were implemented at the state or Federal levels those that were served to transform country areas (Whitford & Boadle 2008; 2009). Investment in irrigation systems increased the profitability of smaller-scale producers, thus allowing for increased population density and the provision of electricity and mains water supplies to country areas (Infrastructure Victoria 2016a; Lake 1987; Whitford & Boadle 2008; 2009; Wodonga & Towong Sentinel 1952a). Further investment in country transport and housing infrastructure, as well as education, health and recreational facilities, coupled with the declining liveability of the Melbourne metropolitan area due to overcrowding stimulated the rapid ‘expansion of many country towns’ in the 1960s and 1970s (Whitford & Boadle 2009, p.69; Infrastructure Victoria 2016a, p.11. This outmigration increased Victoria’s vulnerability to fire and, in response, led to another change in the community’s role and responsibility in fire management (Infrastructure Victoria 2016a; Rural Reconstruction Commission in Whitford & Boadle 2008; 2009).

The fourth era described linked the cumulative effects of the previous century of socio-economic, demographic, cultural and political change in Victoria’s fire-prone areas on community roles, responsibilities and vulnerability vis-à-vis bushfire. The state and Federal government’s continued investment in country areas – including spending $127,000,000 in country Victoria alone in the 1970s – began to pay dividends from the mid- to late-1960s onwards. In the 1970s ‘[m]ore than 2,900 industries had been assisted in decentralising’, with associated out-migration to Victoria’s country and exurban areas leading to ‘much higher’ population growth in such areas compared to urban areas (Canberra Times 1965b; 1979a). The population of country/regional Victoria grew from 592,918 in 1949 to around 1,000,000 in the mid-1970s as the state’s plans for encouraging population growth in ‘satellite towns’ around Melbourne and ‘dormitory suburbs’ in country Victoria took root (Canberra Times 1976c; CBCS 1949).61 This growth followed economic rejuvenation of country areas and resulting improvements to country amenities, housing, services and infrastructure, as well as a new found appreciation of the ‘romance of rural living’ among what Pyne (2014; 2015) termed the ‘New Australian’ cultural movement (Canberra Times 1981c).

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61 ‘Regional’ and ‘Country’ Victoria are not exactly synonymous, though exact figures for growth in areas serviced by CFA from this period are unavailable. These estimates are considered sufficient to demonstrate that there was a substantial growth in population in non-urban areas in the period under review.
The increased heterogeneity of socio-cultural and economic values and goals in country areas created new problems for Victoria’s fire managers. The influx of ‘tree-changers’ to fire-prone areas was identified as a source of increased fire risk in Victoria, as these actor’s attitudes and associated population growth in fire-prone areas placed considerable strain on fire management resources. Newcomers to fire-prone areas were considered ‘largely ignorant of country traditions and thinking, and [were] more concerned with pleasures than [fire] responsibilities’ (Canberra Times 1976b; 1981c; Whittaker & Mercer 2004). The post-1960s trend for country living attracted some that ‘did not see the dangers’ of fire into areas at risk and, ‘even if told’, new arrivals found it ‘hard to recognise the perils in which they [placed] themselves and their families’ (Canberra Times 1976b; 1981c). The claim ignored that ‘country traditions and thinking’ prior to the 1960-outmigration were not exactly fire-minded. The Forests Commission (e.g., FCV 1921a) had frequently expressed concerns about community carelessness and maliciousness as a source of fire risk. Stretton (1939 p.5), likewise, highlighted a prevalent ‘apathy and ignorance’ among fire-threatened communities in Victoria. Thus, the idea that tree-changers were uniquely apathetic and ignorant is somewhat spurious, but the underlying critique that socio-cultural and demographic factors were fundamentally altering Victoria’s vulnerability to fires is an important indicator of the community’s changing roles and responsibilities in fire management.

Country Victoria’s experience of new migrants with more urban backgrounds match the predictions made by community theorists such as Stacey (1969) and Bates and Bacon (1972). For Stacey (1969 pp.141-142) sustained, large-scale migration will eventually alter or destroy the dominant ‘groups, institutions, beliefs and expectations’ in the locality. Further, as Bates and Bacon (1972 pp.372-373) argued, the ‘assumption that communities are systems of cooperating individuals or groups’ is a fallacy, as there is no single community but rather a multitude of groups engaging in ‘competing and conflicting behaviour’ (see also Abrams et al 2004; Bader 1995; Buck 2001; Herb 2004; Silver 1994; Turner 1969; Whittaker & Mercer 2004). Such conflict had been apparent in the Forests Commission’s long battles with the community over careless and malicious use of fire, with these conflicts complicated by increasingly heterogeneous groups with competing and conflicting goals and values for Australia’s remnant native vegetation (Canberra Times 1976b; 1981c; Milton et al. 1984; Murray & White 1995; Pyne 2015; Whittaker & Mercer 2004). Quarantelli (1992 p.11) identified this as a general problem in disaster planning and management, where the ‘highly bureaucratic’ and militaristic nature of emergency service and disaster organisations created tensions with the ‘heterogeneous sociocultural patterns of urban groupings’ such that ex-urban areas are ‘not well suited for coping with disasters’. The historic use of fire for economic gain by ‘European Australians’ declined, and was replaced by the ‘New Australians’’ goal of preserving and protecting Australia’s remnant native vegetation from fire. Preserving and protecting native vegetation involved turning ‘large expanses of Australia [into] parks and nature reserves’, and thus produced a large increase in fuel-loads in fire-prone areas (Pyne 2015 p.323, p.372; Whittaker & Mercer 2004). Thus, as well as constituting a strain on Victoria’s already-stretched fire services through their sheer presence
(and volume) in fire-prone areas, the New Australians and the associated conservationist
movement created a socio-cultural and political barrier to traditional fire management
practices. In hoping to ‘live in harmony with the bush’, New Australians/conservationists
worked to block efforts to ‘sacrifice flora and fauna’ as part of fuel-management programs,
and thus increased the local fire-risk (Berringer 2000; Fairbairn in *Canberra Times* 1969d;
Pyne 2015; Whittaker & Mercer 2004) To address these tensions and produce a workable
public safety strategy Victoria’s fire services began to recommend that residents take
responsibility for their own fire-related outcomes, with this most commonly taking the form
of advice to Stay and Defend during a bushfire.

Stay and Defend represented a means to mitigate the increased vulnerability produced by
these demographic and cultural shifts that was workable in the context of militaristic views of
disaster, a sharp increase in the technological and operational complexity of fire-fighting in
the 1960s onwards. The need for a low-technology, low-cost solution to public bushfire
safety was increased by budgetary constraints imposed on the CFA in the mid-1970s (*The
Age* 1975a; *Canberra Times* 1981d; 1983i; 1985a; Pyne 2015; Rawson et al. 1985). These
factors together hindered the fire services’ ability to protect the community from bushfires
through fuel-reduction programs and reduced the usefulness of the community to organised
fire-fighting at a time when vulnerability to fires was vastly increasing (Boura 1998; Murray
& White 1995). By adopting Stay and Defend, essentially a large-scale Civil Defence-like
community training and education program, the CFA introduced a public safety strategy that
was believed to be an effective way to reduce losses and fit these political constraints and the
dominant problem-frame and policy ideas. The perceived effectiveness of Stay and Defend
was based on previous research and experience that indicated houses burn slowly due to
embers lodging in the structure; that houses could be built or modified to resist embers; the
Civil Defence-inspired notion that the public could be trained to perform a small-scale fire-
fighting role; and that evacuating from a fire exposed residents to greater risks than remaining
with a property (e.g., Barrow 1945; *Good Neighbour* 1962a; Luke 1961; McArthur 1968).
Stay and Defend therefore came to be accepted as a logical response to Victoria’s bushfire
problem because it allowed for the continuing development of fire-prone areas without a
politically and economically unfeasible increase in resources for Victoria’s formal fire
services and a means to produce good public safety outcomes during bushfires. To
understand how alternative bushfire management strategies were rendered unfeasible it is
necessary to consider the developmental pathway of the Victorian community, beginning
with the first steps towards establishing permanent settlement in fire-prone areas of Victoria
after the discovery of gold in the state in the 1850s.

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7.1 The First Golden Age to the 1890 Fire Brigades’ Act

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62 David Fairbairn, Minister for National Development.
The closer, more permanent settlement of fire-prone areas after the discovery of gold in country Victoria in the 1850s led ‘extensive and destructive conflagrations’ to become ‘common among the gingerbread towns on the goldfields’, in part due to the community’s ‘phlegmatic indifference’ towards fire management (Bendigo Advertiser 1859a; Marshall 1930; Murray & White 1995). The potential to reduce fire-related losses through better control of such development through a Building Act was recognised during the mining boom but, as would become a theme in Victoria’s development, the will to implement such policy were lacking (Bendigo Advertiser 1859a; Kingdon 2013). This was attributed to a lack of ‘courage’ among politicians, and limited public enthusiasm for such policy (Bendigo Advertiser 1859a). The ‘efficacy of brick walls’ in ‘withstand[ing] the progress of a conflagration’ was recognised but, despite the limited cost difference between brick and ‘the more fragile and dangerous erections’ common in goldfield towns, the latter tended to be more popular among the public (Bendigo Advertiser 1859a). It was believed this fashion for flammable construction in fire-prone environments would continue until the ‘public mind [were] wrought up to a proper pitch of excitement’, with such excitement ‘usually purchased at a serious and even frightful cost’ (Bendigo Advertiser 1859a). The ‘common-sense’ measure of mandating ‘precautions […] against such destructive calamities’ was not realised as policymakers failed to ‘act like reasonable and reasoning men’ by passing a relevant Building Act, with this inaction setting Victorian fire management down a pathway that would emphasise asset protection over a more comprehensive, development control/vulnerability-reduction approach to fire management (Bendigo Advertiser 1859a).

Understanding the early history of socio-economic and demographic development in Victoria is vital to understand subsequent pressures to develop fire-prone areas. The discovery of gold represented a major step down a developmental pathway that substantially increased Victorians and their assets to fire, and thus spurred the development of local fire services to protect people and property from fire. As the nascent state government was unable to provide such protection, and was not trusted by country Victorians, the first step on the Victorian fire services’ developmental pathway involved the mobilisation of community groups in a self-protective function.

Informal fire-fighting groups formed to protect assets from fire but, given the severity of the threat and groups’ lack of organisation and equipment, many goldfield-towns were considered ‘defenceless’ from fire (Bendigo Advertiser 1859a). The ‘pre-emergency services era’ saw fire-fighting performed by ‘bucket brigades’, consisting of ‘impromptu […] onlookers drawing water from the nearest household, creek, tank or other source’ (Murray & White 1995, pp.6-7). This ‘disorganised system’ amid a fire-prone landscape would ‘inevitably’ lead to ‘disaster’, as fire-fighters operated per the principle of ‘each one for himself’ (Marshall 1930, p.5; Morwell Advertiser 1945a). Persistent gold supplies and
agricultural development led the community to form more formal fire-fighting groups ‘prepared to cope’ with Victoria’s ‘numerous fires,’ with fire-fighting established exclusively as a community responsibility (The Argus 1855a; Blainey 2014; Marshall 1930, p.5; Murray & White 1995, pp.6-7). This was due to hostility to the state’s efforts to tax and control goldmining and/or generally interfere with rural affairs. These community-led groups drew on the fire management experience and knowledge of Britons and Americans drawn to Victoria’s goldfields, and thus combined the British fire services emphasis on ‘strict, almost military’ discipline and training with the Californian goldfields’ model of volunteer fire-fighting (Luke & McArthur 1978; Marshall 1930; Murray & White 1995; Roetter 1962, p.48, p.56). Victoria’s fire-fighting groups continued to develop in technological, organisational and operational complexity such that a conceptual and skills gap emerged between the roles and responsibilities of ‘fire-fighters’ and ‘residents’, i.e. lay members of the community. Finally, in 1853, community members in Geelong arranged a permanent full-time, volunteer locally-based fire brigade, with this constituted in 1854 (Geelong Advertiser and Intelligencer 1853a; Marshall 1930). This development reflected a ‘spontaneous’ recognition of the ‘expediency’ of having a local fire brigade given the growth in local population and value of property, and quickly followed in other fire-prone country areas (Geelong Advertiser and Intelligencer 1853a; see also Roetter 1962 for a similar case in England).

The establishment of local brigades coincided with the state’s first moves into fire-related legislation. The Act to Restrain the Careless use of Fire 1854 (Vic) followed the finding that some 1851 Black Thursday bushfires were the result of careless use of fire by community members, and others maliciously or deliberately lit in the hope of economic gain (The Argus 1851a; Wilkie 2013). The need to prevent further ‘serious accidents’, and the ‘danger’ of malicious fire-lighting, led to the passing of the 1854 Act and thus to a statutory change to the community’s rights, roles and responsibilities in fire management (The Argus 1854a). Unauthorised lighting of fires during bushfire season (November through February) was made illegal under threat of financial penalties and/or imprisonment (Act to Restrain the Careless use of Fire 1854 (Vic) (s.I)). Community members were an integral part of the policing of the 1854 Act, as they were empowered to ‘apprehend’ those who illegally-lit fires, or were suspected of such activities (Act to Restrain the Careless use of Fire 1854 (Vic) (s.II)). The 1854 Act, however, was considered ‘not sufficiently stringent’ given the potential ‘ruin that may attend many private individuals’ through fire-related ‘mischief’, and thus led to an amended 1856 Act that extended restrictions on fire-lighting to March (Act to Restrain the Careless use of Fire 1856 (Vic); The Argus 1855a). This amendment, in turn, was declared ‘ineffectual’ for reducing the risks of careless or malicious use of fire by community members in the preamble of the Act to Prevent the Careless Use of Fire 1858 (Vic), with this new Act again altering the community’s roles and responsibilities in fire management. Restrictions on fire-lighting between November and March were removed as the community’s role in ‘apprehending’ those carelessly or maliciously using fire was extended, and provisions made for coronial inquests into the ‘cause and origin’ of destructive fires (Act for Preventing the Careless use of Fire 1858 (Vic) (ss.I-VII)).
The fast pace of legislative change here reflected the difficulties in imposing central controls on a local issue, and in mandating community roles and responsibilities. The state recognised the dangers of unrestricted fire-lighting but, at the same time, the use of fire to manage fuels was accepted as the most effective means to ‘obviate’ bushfire ‘dangers’ (The Argus 1854a). The nascent brigades and fire-fighting groups were unable to perform this role on the scale required, and thus residents were recognised as a vital component in fire prevention and mitigation activities. Editorials implored residents in country areas with ‘stations, stockyards, or homesteads to protect’ to perform fuel-reduction burns ‘at once’ in January 1854, despite the prevailing legislation (the Act to Restrain the Careless use of Fire 1854 (Vic)) requiring that notice of such fire-lighting would have to be provided ‘in writing at least twenty-four hours before burning or igniting’ (s.I) (The Argus 1854a). Such advice reflected understanding that lands burnt during periods of low fire danger (e.g., late autumn and early summer), ‘scarcely ever [burn] again during the same season’ (The Argus 1854a). This led to the recommendation of burning a ‘charmed circle’ around a property, ‘sufficiently wide [and] complete so that the [fire] enemy cannot steal in at any weak point’ as an effective means of reducing losses (The Argus 1854a). Again, the limited resources of the formal and semi-formal fire services meant that this had to be a community responsibility, with the community’s willingness and ability to perform its role limited by the prevailing legislation.

Country Victorians were criticised by the media for their being ‘apt to think [themselves] safe [from bushfire] when everything is green and growing’, and thus failing to perform necessary fire prevention and mitigation activities during safer months (The Star 1859a; Weekly Times 1883a). The removal of blanket restrictions on fire-lighting during bushfire season can be thought of as recognition of residents’ seasonal attention to bushfire risk; there was risk that repealing the Act would lead to the ‘incautious’ use of fire, but at the same time inflexible legislation limited community participation in fire management (The Star 1859a). The result was a tense problem of ‘making people careful’ in reducing fire risk and ‘preventing crime’ that was flexible enough to accommodate local goals and values relating to fire management (The Star 1859a). To do this the state, through the media, worked to educate and inform the community on proper fire management techniques and to warn of the potential sanctions for those found to be acting illegally.

The mixed-method approach to encouraging the community to perform its fire management role involved educational materials provided through community-fire-fighter links, and annual mass-media reminders of the need for, and how to perform, fuel management (e.g., The Argus 1856a; Gippsland Guardian 1856a). The importance of ‘preparing fire strips’ (fire breaks) around crops and structures, and the successes of residents ‘collecting in gangs’ and burning ‘strips of grass’ on ‘moonlit nights’ were highlighted to encourage the wider

63 It is not clear to whom notice should be supplied.
performance of such actions (Avoca Mail 1887a; Geelong Advertiser 1910a; Mount Alexander Mail 1881a; Weekly Times 1883a). These actions, however, were performed in a largely ad-hoc manner and dependant on residents’ willingness to act within the law. The state could investigate and prosecute those accused of the careless or malicious use of fire but had no real power to compel fire prevention or mitigation activities. The lack of a formal requirement for such actions can be explained partly as a consequence of the ‘infinite risk’ involved in such burning ‘even where great care and circumspection are exercised’, and the lack of appropriate state body to guide and oversee such activities (Bendigo Advertiser 1884a). These deficiencies, coupled with residents’ inability to perform effective fire-fighting activities prompted the Victorian state government to further formalise Victorian fire management by creating more specific roles and responsibilities for community members, including requirements for fuel management and creating the necessary state bodies to police such requirements (see e.g., Bendigo Advertiser 1859a; Vic 1885).

7.2 The Fire Brigades’ Act 1890 to Black Friday 1939

The Victorian state government introduced a raft of policies, in particular the various Fire Brigades’ Acts, Bush Fire Brigades’ Acts, Forests’ Acts and Land Acts between 1890 and 1939 that would define and re-define the community’s rights, roles and responsibilities in fire management. The implications of the Fire Brigades’ Acts on the community’s rights, roles and responsibilities were implied above; Acts of Parliament created and increased a conceptual and statutory distinction between ‘fire-fighters’ (qua members of volunteer Brigades) and ‘residents’ (qua members of the community) by requiring registration and training as well as offering legal protections and insurance for fire-fighters. The potential for residents to serve as informal fire-fighters was recognised in clauses that provided some protections for residents who ‘voluntarily place their services at [the] disposal’ of senior Brigade personnel, and by empowering residents to remain with (and work to defend) any property in which they held a ‘pecuniary interest’ (Fire Brigades’ Act 1890 (Vic) (s.38, s.60)). The protections for resident-fire-fighters were useful during major fire events when fire services would make general calls for assistance but, in line with the pre-Fire Brigades’ Act 1890 experience, these were emergency measures to deal with serious fire-fighting conditions rather than a reflection of the utility of residents in fire-fighting (see Bendigo Advertiser 1859a; Vic 1885). The technical requirements of fire-fighting at the end of the 19th century had begun to exceed the capacity of residents (qua lay members of the community) such that the 1885 Select Committee upon the Fire Brigade System (Vic 1885, p.57) likened the contribution of untrained residents to fire-fighting to a low-ranking soldier trying to ‘manoeuvre the men’. After the Fire Brigades’ Act 1890 (Vic) Victoria’s fire management system emphasised well-trained, well-equipped and well-organised fire-fighters rather than enthusiastic but untrained resident-volunteers (Stretton 1939; The Truth 1944a). Hence, residents’ roles and responsibilities in fire management shifted from fire-fighting towards a supporting role focused on fire prevention and mitigation.
Residents’ new roles in fire management were confirmed in legislation that mandated community involvement in fire prevention and mitigation. The *Land Act 1901* (Vic) (s.268-270) required that land in fire-prone areas be ‘ploughed or cleared’ for ‘at least one chain’ before a fuel-reduction burn was lit, with violations punished with fines and/or imprisonment. Fire-lighting between November and March was restricted, and legal fire-lighting required community members conform to strict state-defined criteria to ‘prevent the spread of such fire’ (*Land Act 1901* (Vic) (s.270)). The 1901 Act (s.399) would also see the state authorized to ‘resume’ control of leased lands that were considered at-risk of fire where residents failed to fulfil their fire management roles. Similarly, under the *Forests Act 1907* (Vic) (s.34-36) the state government was empowered to ‘remove’ buildings considered at high-risk of fire, and to order residents perform fuel clearance on private lands abutting state forests. If residents failed to conform to these requirements the state government would undertake the action and subsequently ‘recover the expense of doing so from the owner or occupier’ (*Forests Act 1907* (s.35)).

These fire-related Acts constituted a growing legal requirements of residents in fire-prone areas. The mid-19th century Acts to Restrain or Prevent fires provided the state with powers to sanction those causing dangerous fires, while the early-20th century Acts were establishing and formalising more general community roles and responsibilities to prevent and mitigate fires. Further, the community was progressively integrated as an agent in the state’s fire management strategy through (e.g.,) the Forests Acts granting the state powers to inspect and direct (or order) community pre-fire prevention and mitigation activities. These centrally-provided powers were not always sufficient to promote compliance with the law, and the inflexible terms would create tensions between the local and centre, but the point remains that the community was being assigned roles and responsibilities in fire management by the state.

Victoria’s fire management bodies struggled to motivate the community to fulfil its roles and responsibilities in fire management. These difficulties followed from tensions between local and central goals, with the former generally ignored in fire management decision-making. The centre did not consider some local goals as legitimate, leading to illegal behaviours and souring the relationships between stakeholders. The Forests Commission’s (FCV 1921a p.8) efforts to sustainably manage State forests and to protect against fire led private sector actors to resent the Commission’s attempts to ‘prevent […] industrious and deserving citizens from obtaining a livelihood’ out of ‘sheer perversity’. These ‘industrious and deserving’ citizens generally belonged to the grazing or logging sectors, with both suspected of law-breaking; *Ballarat Star* (1910a) noted the ‘illegal occupation for grazing purposes’ of State forests, facilitated by the divided control of grazing licenses between state agencies, and subsequent illegal clear new, or rejuvenate old, pasturelands (see also *The Argus* 1851a; Rodger 1961; Stretton 1944; 1946). The timber industry, sportsmen (e.g., fishers) and tourists likewise
carelessly or maliciously lit illegal fires and thus shared the blame for ‘destroying’ Victoria’s forests (Ballarat Star 1910a). Paradoxically, these illegal actions were in part the result of the state’s efforts to prevent and mitigate such fire outbreaks. Zealous efforts to identify and prosecute lawbreakers, and thus prevent their future utilisation of forested areas, stemmed from the Forests Commission’s limited resources to reduce the risk of and fight fire in the forests; ever-increasing penalties for transgressions under the (e.g.,) 1907-1918 Forests Acts were intended to, but did not, reduce the financial incentive for illegal activity, and instead motivated greater transgressions so as to maximise short-term economic gains (Ballarat Star 1910a; FCV 1921a).

Tensions between community and state goals are a central theme in Victorian fire management, with these made worse by the state government’s limited support of its fire management agencies. The Forests Commission was riven by conflicting government directives and chronic under-resourcing such that it struggled to balance its dual role as Victoria’s forests’ de facto ‘fire warden’, where the Commission was tasked with preventing and mitigating fires and overseeing community fire management activities, and as the ‘develop[er] and market[er] of forest produce’ (Forests Act 1918 (Vic) (s.35); FCV 1921a, p.22; 1939, p.6). Efforts to perform the former goal were undermined by the poor relationship between the Commission, residents and the private sector caused by the Commission’s heavy-handedness in enforcing forest law; residents’ anger at the private sectors’ illegal and dangerous fire-lighting; and the Forests Commission’s lacking powers to permit or refuse licenses for grazing. Graziers came under the jurisdiction of the Minister of Lands as grass for grazing was ‘by definition, excluded’ from the Forests Commission’s control over forest produce (Stretton 1939, p.9). The Commission’s goal of developing and marketing forest produce gave the private sector considerable power to influence State forest policy. The Forests Commission was all-but financially dependent on the opening and development of forest areas, with 80 per cent of the Commission’s revenue in 1921 coming from rents, fees or royalties from forest-users (FCV 1921a; see also FCV 1939a; Murray & White 1995). Further, forest-based industries’ close ties with high-ranking Victorian politicians, particularly in the mid-1930s through the mid-1940s when Deputy Premier Lind was appointed both Minister of Forests and President of the Board of Lands and Works, saw the private sector’s goals of increased forest production take precedence over fire protection, and roles and responsibilities in fire management (Collins 2009).

The Forests Act 1918 (Vic) is an example of the power the private sector held over forest policy. The Act constituted the Forests Commission, and gave it responsibility for the ‘protection of State forests from fire’ at the same time as it required that the Commission open a ‘sufficient part’ of any reserved forest for residential development such that ‘all engaged or employed in any forest industry or [desiring] to carry out any lawful business in the reserved forest’ could build, purchase or rent a forest property (Forests Act 1918 (Vic) (s.35; s.39 ss.1-15)). The resulting development of forest settlements was antithetical to the goals of reducing the risk of fire-related losses, as the Forests Commission had long been
concerned by the involvement of graziers, loggers, settlers and tourists in suspicious forest fires (The Age 1926c; Ballarat Star 1910a; FCV 1921a; 1928a; 1931a-1939a; 1952a). The Forests Commission might have some incentive in identifying careless or malicious use of fire as a leading cause of fire-related losses (e.g., by placing the ‘burden of doing something’ on the fire-lighters rather than the Commission), but a positive correlation has been noted in both Europe (e.g., Ganteaume et al 2013) and Australia (Bryant 2008) between the size of the local population and incidence of fire in fire-prone areas. Further, it is axiomatic that as the vulnerability of people and property to fire increases – that is, as people and property in fire-prone areas increases – the risk of loss increases. The policy decisions made in the 1910s and 1920s that prioritised socio-economic and demographic goals over fire management in fire-prone areas coupled with weak structures to motivate community performance of its statutory roles and responsibilities would serve to increase the vulnerability of people and property to fire. When these socio-economic and demographic factors combined with Victoria’s fire-prone climate the result was a spate of major fires in the 1920s and 1930s. These fires caused major losses and, ultimately, policy change that again sought to more strictly define and enforce the community’s fire management roles and responsibilities. These policy changes were influenced by the progressive militarisation of Victoria’s brigades to create the conditions ultimately led to Victoria’s adopting Stay and Defend, and subsequently Stay or Go as its official public safety strategy.

The need for stricter definition and control of the community’s roles and responsibilities was made apparent by a spate of fire-related in the 1920 and 1930s linked to illegal, careless or malicious use of fire. One hundred and forty people were killed in three major fires during the 1920s and 1930s. The first, the 1926 Black Sunday bushfires, caused 60 deaths and burnt around 4,000km² of Reserved Forest and Crown Lands (AEM n.d. c.2012a; COAG 2004; FCV 1927b). The Forests Commission would estimate that 80 per cent of fires during the 1925/1926 season were started carelessly or maliciously, with the then-unprecedented losses leading to public outcry at the state of Victorian fire management (The Age 1926c; FCV 1927a; 1927b). The power of the forest-based industry lobby, however, effectively blocked policy change. This was most apparent in the failure to provide much-needed public safety infrastructure, particularly dugout community bushfire shelters, after the fires. The need for such shelters was apparent in survivors’ accounts of Black Sunday. Rather than being evacuated or warned of the threat to their safety ‘[m]any’ of those in the isolated settlements provided for under the Forests Act 1918 (Vic) were left uninformed of the imminent danger and without an effective safety alternative. The fires unexpected arrival meant it was ‘all the occupants could do’ to ‘save their lives’ by adopting risky survival strategies such as sheltering in low-fuel areas and making use of wet blankets or corrugated iron sheets as protection from radiant heat (see e.g., The Age 1926a; 1926b; The Argus 1926g; Weekly Times 1926a).

The country lobby also succeeded in preventing policy change to empower the Forests Commission to better operate as the state’s fire warden. The Forests Commission argued that
were its ‘powers of control’ over development and industry in Victoria’s forests increased, and its resources enhanced, its ability to protect against such ‘lamentable’ losses from the ‘forest fire menace’ would be substantially improved (The Age 1926c; FCV 1927a, p.4; 1927b, p.3). In response, the state government enhanced Forests and Police Officers’ powers to arrest those suspected of illegal fire-lighting and to direct landowners/occupiers to extinguish fires on their property, but a lack of new resources for the Forests Commission means such powers were somewhat redundant (Forests Act 1927 (Vic) (s.4-6)). The need for additional fuel-reduction burning – stressed by newspapers since the late-19th century (e.g., Avoca Mail 1887a; Mount Alexander Mail 1881a; Weekly Times 1883a) – were repeated by The Age (1926c), where the historic ‘constant burning of the bush by the blacks’ was identified as successfully reducing the intensity of Victorian bushfires, and suggested as a model for practice post-Black Sunday. Again, though, the Forests Commission’s limited resources and relationship with the community meant that such burning was not practicable. The Forests Commission could not carry out and monitor such burning itself and, due to the suspected role of community members in illegal fire-lighting, the Commission loathed diverting resources away from the identification and suppression of fires and its more general fire prevention/mitigation work (FCV 1921a; 1931a-1939a; 1952a). Thus, without a community actively engaged in its statutory duties in fire management the risk of fire-related losses in newly-developed forest and peri-forest areas remained high. The means to promote such engagement, however, was not forthcoming due to the ‘indifference’ that was ‘not infrequently given’ by the community to careless or malicious fire-lighting (FCV 1921a, p14).

The 1926 fires, like most during the first half of the 20th century, were attributed to the ‘dangerously common’ and ‘simply careless’ lighting of fires by campers, bushmen or tourists, and those lit with an ‘untroubled conscience’ by graziers, loggers, or miners for economic gain (The Age 1947c; Ballarat Star 1910a; Brennan 1979, p.91; FCV 1931a-1939a; 1952a; Stretton 1946, p.13). It can be said, then, that a large portion of the Victorian community was not performing its mandated roles in fire management. Against this picture of ‘apathy and ignorance’, and a community ‘absolutely unprepared for fire’ was a new, burgeoning volunteer fire service (Camperdown Chronicle 1931a; Stretton 1939, p.5). These ‘bush fire’ brigades were, like their informal country and subsequent state-administered Country cousins, formed by locals as an ad-hoc and informal method of fire-protection. The Forests Commission, together with Victoria Police and the Country Fire Brigades’ Board sought to harness this active and engaged segment of the community as a fire management resource, and to foster the movement by offering state assistance to new and existing brigades (Murray & White 1995). The results were positive; 31 brigades formed during a 10 day ‘tour’ of Gippsland, with 106 brigades established by the publication of the Forests Commission’s 1926/1927 Annual Report (FCV 1927a). Brigade members were successful in educating and encouraging some community members to fulfil their responsibilities in fire management but, like the Forests Commission, struggled to engage the community en masse in fire management, in part due to the state government’s failure to balance economic and demographic goals with fire management priorities (Stretton 1939).
Alongside these efforts to control public behaviour there was some recognition of the need to reduce vulnerability to fires in Victoria. Critical observers’ after the 1926 bushfires expressed concerns that development in fire-prone areas had created an unacceptable risk of fire to people and property (The Argus 1926b; 1926c; 1926f). Rhetorical blasts were directed at state policies that had facilitated such development, including The Argus’ (1926b) criticism:

What possessed the Ministry of that day to plant settlers on the top of a mountain, the soil of which will scarcely grow bracken, 10 miles from the nearest food market, and that reached by a track which is impassable in wet weather is a mystery […] when that red Sunday came along, and the wall of flame, swept onward by a gale, came over the summit of the mountain [a] family crouched beneath a pear tree, covered themselves with wet blankets, and grimly stayed there for 24 ours, even while their backs were being burned.

However, these arguments had a limited effect on policymaking, including the failure to provide dugout shelters until after the 1939 Black Friday bushfires. Rather than working to reduce vulnerability after the 1926 fires the state government allowed rebuilding in fire-destroyed communities, and extended the areas available for development. The state government’s Bushfire Relief Sub-Committee offered ‘fireproof homes’ and relief funds for fire victims which helped facilitate community recovery and a ‘return to normal’, did not capitalise on an opportunity to reconsider state development plans and reduce vulnerability to fires (The Argus 1926c; 1926f; Ritchie & Gill 2007). Noojee and Fumina, which had been all-but destroyed during the 1926 fires, were rebuilt and impacted again by fires in 1932 and 1939 (Sunday Mail 1939a). After the 1939 fires Noojee was rebuilt again with ‘fireproof’ houses of ‘stone and cement sheeting’ creating confidence that ‘if ever again terrible fires tore through the mountains, Noojee at least would still be there afterwards’ (Portland Guardian 1941a). This confidence would give way in subsequent years, as development around Noojee continued with houses dangerously ‘close to tall trees’, but the use of fire-resistant materials meant that it was expected that ‘lives would not be imperilled’ in one of Victoria’s most important timber-producing regions (The Age 1946b; 1947c; 1949a; AWW 1952a). It is not clear from this literature whether this was the beginning of a push in state policy towards advice to stay and, perhaps, defend, or recognition that fire-proof houses were the only practicable solution to public fire safety in these isolated areas. What is important, though, is that the state recognised it had a role and responsibility in protecting communities from fires (i.e., the offer to provide fire-proof homes), and establishing that the community’s role during fires was based on evacuation to a place of shelter.
That economic goals were taking precedence over fire management can be seen in the amended *Forests Act 1927* (Vic). The Act would provide a more flexible framework for fuel-reduction burns (s.6 ss.2) but, at the same time, vastly increased Victoria’s vulnerability to fire. The *Forests Act 1927* (Vic) increased the area allowable under sawmilling licenses from $12.1\text{km}^2$ (set in the 1918 Act) to $23.8\text{km}^2$ (s.4); the length of licenses increased from one to three years (s.5); and the annual allowance for timber-cutting increased from $2.6\text{km}^2$ to $20.2\text{km}^2$ (s.5). These extensions attracted more people and property to Victoria’s forested areas without adequately addressing the problem of their vulnerability to fire or the community’s limited fulfilment of its roles and responsibilities in fire management. Graziers, meanwhile, were not subject to any new restrictions and so continued to ‘plunge the firestick into the forest on a blazing hot day for the purpose of promoting a growth of grass’ for livestock (*The Argus* 1926d). Worse, the recognised need for dugout bushfire shelters in high-risk areas was allowed to ‘lapse’, partly due to the blocking tactics of the forest-based industry lobby, and partly due to the weak political position of the Forests Commission (*The Age* 1932a; Collins 2009; Stretton 1939, pp.18-20). The trauma of those without shelters during the 1926 bushfires was echoed by those suffering through the 1931/1932 bushfire season, where nine deaths – six of them at mill-sites – again drew the shelter matter to prominence, with the Forests Commission committing to ‘formally impose’ shelter provision on mill-owners ‘without exception’ (*The Age* 1932a; *The Argus* 1932a Stretton 1939, pp.18-20). These commitments to public safety were welcomed by the Timber Workers Union, as dugouts had saved lives on ‘more than one occasion’, but, given the raising of the shelter issue again after the 1936 and 1939 bushfires, it can be said that shelters were not provided ‘without exception’ (*The Age* 1936a; Stretton 1939).

The persistence of the shelter issue on the policy agenda, and the country interests’ blocking policymaking for shelters, reflected a growing schism in the locus of responsibility for public safety during bushfires. In 1936 the Forests Commission again ‘prevailed’ on mill-owners to learn from the ‘tragedies of the past’ and provide shelters at dugouts but this appeal did little to force shelter provision (*The Age* 1936a). Stretton (1939 p.18) noted that ‘[a]t no time’ did the Forests Commission take ‘any steps to compel’ shelter provision outside of these weak appeals, or make ‘even a threat of coercion […] against recalcitrant millers’. The Forests Commission’s inaction might be understood as a result of the lack of legislative requirement for such shelters, and the Commission’s continuing financial reliance on marketing and promoting forest produce (FCV 1939a). Were the Commission to force shelters it would likely be detrimental to the development of Victoria’s forests, and thus to the Forests Commission’s revenues. At the same time the Forests Commission recognised its ‘moral responsibility’ to work towards promoting the safety of residents in Forest Commission-approved settlements but without being ‘legally bound’ to provide dugouts neither the Commission nor the millers would take the initiative to sincerely support their widespread introduction (Stretton 1939, pp.18-20). When the 1939 Black Friday bushfires resulted in the
deaths of 71 Victorians – the worst bushfire disaster in the state in the 20th century -- the ‘friction’ and policy blockages that marked the ‘politics’ stream would be overcome both by public opinion, and by public bushfire safety being firmly established as a problem that required government attention (Kingdon 2013).

The Victorian state government’s deliberate inaction in providing shelters during the 1920s and 1930s can be explained through Kingdon’s (2013) Multiple Streams framework. The 1926 and 1932 bushfire-related deaths in Victoria indicated that there was a problem of public safety during disasters, with the provision of shelters a prominent policy solution to this problem. However, in Kingdon’s (2013) framework the coupling of problems to policies is not sufficient to produce new policies. If factors in the politics stream preclude a policy solution on the grounds of technical, political or financial feasibility, or the attitude of the public or Parliament is not in favour of acting on a problem/policy, the idea will remain dormant in the policy primeval soup (Kingdon 2013). In the case of shelter provision in Victoria the lobbying powers of forest-based industries can be considered a key source of friction in the politics stream that effectively blocked mandatory shelter provision prior to Black Friday.

The deaths of 71 Victorians in 1939, after the deaths of 60 in 1926 and 9 in 1932, constituted a ‘fast-paced chain of linked events’ and thus a problem that the state government could not ignore, though senior Victorian politicians did attempt some blocking tactics to prevent major political change (Aminzade 1992; Kingdon 2013). State Premier Dunstan and Deputy Premier Lind (the former also holding the positions of Minister of Forests and President of the Board of Lands and Works) together sought to suppress Victorians’ urge for a Royal Commission into the fires. Lind (in The Age 1939d) initially argued that a ‘Royal Commission [into the Black Friday bushfires] was unnecessary’ and, when this failed, agreed with Dunstan that the Commission should be a brief one, with the Commissioner interviewing a single representative from each fire-affected district rather than examining ‘20 or 30 witnesses […] from the same district’ (Dandenong Journal 1939a). Under Judge Leonard Stretton, however, the 1939 Royal Commission into the Black Friday bushfires travelled ‘across Victoria […] to see the results of the fires’ and interviewed hundreds of witnesses across 34 days of hearings (Collins 2009, pp.52-54; Stretton 1939). As a result, Stretton’s (1939) Report represented a ‘striking denunciation’ of both state and community ‘disregard of responsibilities’ for fire management but, through Lind and Dunstan’s affiliation with forest-based industries and resulting deliberate blocking and inertia, had a limited immediate effect on Victorian bushfire management (The Age 1939d; 1939g; The Argus 1939g; 1939h; 1939i; Collins 2009; Murray & White 1995; Sydney Morning Herald 1944a). Stretton’s (1939) Report would, however, serve as landmark document by describing the pre-Black Friday roles and responsibilities of the state, fire services and community, how

64 The 1983 Ash Wednesday bushfires would produce 75 fatalities, but these were spread across Victoria (47 deaths) and South Australia (28 deaths).
well these were performed and were changed by wider societal factors, as well as recommending changes to reduce the risk of such fires recurring.

7.3 Stretton on Black Friday

Stretton’s (1939 p.6) first Royal Commission sought to assess both the ‘causes and origins’ of the 1939 fires, and to provide a wider review of suitable:

methods of control and organisation of fire-fighting forces, of awakening of public appreciation of the misuse of fire, or deciding upon, effectuating and enforcing fire prevention schemes, [and] of amendment of the law by repeal or alteration where at present it stands in the way of the safeguarding of our property and our people.

The Royal Commission criticised the community’s ‘unpreparedness, apathy and ignorance’ regarding its fire management responsibilities, with these failings attributed, to a degree, to the Victorian state government. The public saw the Forests Commission as Victoria’s ‘fire warden’, but the Commission’s ability to implement and direct fire prevention and mitigation tasks was undermined by senior Victorian politicians and by the Commission’s ‘enforced mendicancy’ (Stretton 1939, p.7, p.13-14). Except for A. V. Galbraith, desribed as the ‘truthful sponsor of what [Galbraith] thought a bad case’, the testimony and evidence provided by Victorian politicians, civil servants (Forests Officers, Lands Department employees, etc.) and representatives of country industries was such that Stretton (1939 p.7) lamented that ‘the truth’ of the causes of Black Friday, and of deficiencies in Victorian fire management, were ‘hard to find’. Timber workers were under-represented in evidence-gathering due to their being ‘afraid that if they gave evidence they would not be given future employment in the mills’ (Stretton 1939, p.7). Forests Officers ‘were afraid that if they were too outspoken their future advancement in the Forests Commission’s employ would be endangered’ (Stretton 1939, p.7). The Lands Department, the body authorised to grant permits to graziers, was ‘not represented before the Royal Commission, nor did it appear to give evidence, until late in the proceedings’ after Stretton (1939 p.17) publicly expressed concern regarding its absence, in what Stretton considered ‘transparent “tactical” conduct […] to be deprecated’. These difficulties were considered the result of inter-organisational and inter-personal collusion between these key fire stakeholders who had become ‘too friendly’, leading to their being ‘loud in praise of one another’ despite their appreciating that

65 Chairman of the Forests Commission.
all had ‘neglected many obligations in the matter of fire prevention and suppression’ (Stretton 1939, p.7).

These warm post-disaster relations masked extensive buck-passing and enmity in the pre-disaster period. Stretton (1939 p.10) reported a ‘long-standing feud’ between state agents and agencies due to each’s belief in the validity and primacy of their goals. As a result, each state department ‘look[ed] at the other as a creator of danger and an enemy’, while ‘excus[ing] the unsafe condition of [its] own territory’ and lack of fire prevention ‘by protesting that [its] own undertaking is of vast importance’ (Stretton 1939, p.10). The state, private sector and community recognised that other stakeholders were deficient in their fire management activities but did not press the matter; each sought to fulfil their non-fire-related goals to the detriment of their fire management responsibilities. The Water Supply Authorities, for example, did not perform fuel reduction burns lands due to the effects of such burning on water quality and the Authorities’ goal of a ‘full supply of uncontaminated water’ (Stretton 1939, p.10). The Lands Department ignored the effects of granting grazing licenses to known fire-lighters, and its failure to perform fire prevention because of the goal of maximising revenue and economic development, coupled with a ‘legal impediment’ to managing fires in forested areas (Stretton 1939, p.17).

The state failures in fire management bled over into community failings, as the residents succumbed either to ‘apathy’ or engaged in ‘illegal measures of self-help’, such as unauthorised and unsupervised fuel-reduction burns (Stretton 1939, p.10). Where the Forests Commission did not carry out fuel reduction activities locals either considered the local risk to be low, and ‘allow[ed]’ their townships ‘to be encroached upon by scrub’ or, in the case of more fire-wise residents, lit their own fuel reduction burns that were left untended to reduce the risk of prosecution for unauthorised and therefore illegal fire-lighting (Stretton 1939, p.13). The Forests Commission and Lands Department’s non-enforcement of laws against illegal fire-lighting by country-based industries stimulated further illegality. Stretton (1939 p.9) criticised the Lands Department for its having rendered restrictions on leases to known fire-lighters a ‘nullity in reality, as there is no supervision of the requirement’, and ‘no prosecution’ had been made against illegal fire-lighters in the five years to Black Friday. Collins (2009) made similar accusations against the Forests Commission. Thus Stretton (1939 pp.11-12) explained the ‘strange fact that the law designed for the prevention of fires’ having been a ‘fruitful cause of bushfires’ due to the ‘unsuitability of its specific terms’, and a ‘flat rule’ approach to the Victorian context. Laws relating to fire management had become ‘so notoriously unpopular’ due to their ‘unreasonable and inflexible’ nature that there was neither ‘public opinion’ nor state agents to ‘check an intending law-breaker’, or guide and ensure that the state and community fulfilled their roles and responsibilities in fire management (Stretton 1939, p.12). Stretton (1939 p.10) therefore identified the ‘major, over-riding cause’ of the 1939 bushfires as the ‘indifference with which forest fires [had long] been regarded’ in
Victoria’ at both the policymaking and policy-implementation levels, which manifest in deficient fire management actions and ultimately the losses in 1939.

Stretton’s (1939 p.5) simple explanation for the fires of 1939, that they were ‘lit by the hand of man’, can be unpacked into both a literal criticism of the role played by human agency (in the form of careless or malicious fire-lighting, and ignorance or apathy regarding fuel management) during the 1938/1939 bushfire season, and as a critique of the preceding 80 years of fire management in Victoria. The early settlement of Victoria saw ‘white men introduce fire to the forests’, which were then relatively ‘safe’ from fire, to clear land for settlement and/or economic development (Stretton 1939, p.11). The result was a profound ecological shift as scrub and grass – but mostly scrub – grew in burnt areas (Stretton 1939; Milton et al. 1984). Repeated burning was an efficient (short-term) method of encouraging grass for grazing, but led to ‘the scrub [growing] faster and thicker; [and] bushfires, caused by the careless or designing hand of man, ravaged the forests’ until ‘the canopy was impaired, more scrub grew and prospered and, again, […] fire was used’ (Stretton 1939, p.11). This ‘cycle of destruction’ persisted to the 1939 Black Friday bushfires, and was encouraged by the state’s prioritising economic goals over fire protection, and general attitude that fire was ‘a matter of individual interest, for treatment by individuals’ (Stretton 1939, p.5, p.10). This state-level attitude, coupled with a restrictive and confusing legal framework, fostered illegal and dangerous fire-lighting for economic gain or as ‘self-help’, as well as ‘unpreparedness, apathy and ignorance’. In Stretton’s (1944 pp.3-4) second Royal Commission into bushfire it was considered that a ‘sense of social responsibility’ towards sensible fire prevention and mitigation did not ‘spring from the soil of dissatisfaction’, with this serving as an equally applicable explanation for the situation in 1939. Alternatively, community members failed to fulfil their fire management roles and responsibilities because of civic dissatisfaction at other stakeholders’ (non-)performance of their role, and/or by failures to integrate local goals and views into central plans.

The community’s ability to perform its assigned role in fire prevention and mitigation was further undermined both by the shortages in state fire officers rendering it impossible to ‘supervise or prevent’ dangerous fire-lighting, and by the ‘unsuitability’ of central controls in a ‘widely diverse’ landscape (Stretton 1939, pp.12-16). Laws ‘not acceptable to the many [were] made to be broken’, and so Victorian fire management had to rely ‘upon the voluntary co-operation of those whom [the laws are] designed to protect’ (Stretton 1939, p.7). Without the state government setting a positive example of fire management, whether through the just enforcement of the relevant laws or by taking the lead in fire prevention and mitigation, Victoria’s community did little to ‘render safe the townships or [their] environs’ (Stretton 1939, p.13). Public opinion after Black Friday recognised this failing; The Argus (1939o) alone received dozens of letters expressing the need for better fuel management arrangements. Stretton’s (1939 p.7) proposed solution was for a dual strategy of improved fire prevention through the creation of a single State Fire Authority. The powers of this central authority
were to be distributed and discharged through local Brigades that worked to educate or ‘cajoul [sic]’ and/or to punish illegal or unsafe fire-users, and to protect the community through the more general provision of bushfire safety infrastructure (Stretton 1939, p.7).

The need for a local authority to mediate between the centres’ ‘flat rules’ for fire prevention and mitigation and the ‘widely diverse’ landscape was underlined by the effectiveness of the Bush Fire Brigades in promoting community fire management, and compliance with fire-related laws. Stretton (1939 p.27) noted that where Brigades had ‘come into existence there [was] a lessening not only of destructive spread of bushfires, but also of outbreaks’, with Stretton attributing this to it being known that ‘there is a body of men by whom no sympathy will be shown towards the person who illegally causes fire’ producing ‘some check upon the actions of persons who might be of a mind to burn illegally’. Alternatively, the community’s inaction ‘flow[ed] naturally from the lack of exercise’ of the state’s sanctioning power (Stretton 1939, p.19). If a body existed that was willing to exert social pressure on would-be fire-lighters the community’s participation in fire management would be increased. The Bush Brigades represented a potential source of this pressure but, prior to the 1939 Black Friday bushfires were ‘not [legally] empowered to take preventative measures’ themselves, while the Forests Commission and other state agencies were under-resourced and/or apathetic regarding the fire problem (Stretton 1939, p.13). These legislative and financial barriers coupled with community apathy and/or illegality to create the conditions appropriate for the adverse fire weather during the 1938/1939 bushfire season to overwhelm Victoria’s ‘puny’ fire management resources (Stretton 1939, p.13). Stretton (1939) recognised the risks caused by this combination of circumstances, and its likely recurrence in the future, but was pragmatic. Stretton (1939 p.13) accepted that it would be ‘absurd, unjust and impossible’ to ‘forbid the forests to all men’ for social, economic, or recreational activities, and instead proposed that rather than such a vulnerability-reducing approach Victoria’s public bushfire safety strategy should emphasise the provision of dugout bushfire shelters in fire-prone areas.

**7.3.1 Survival Strategies: Importance of Place**

Stretton’s (1939) push for dugout shelters to receive prominence in the governmental agenda reflected both the pragmatic need to continue development in fire-prone areas and the benefits of dugouts as public safety alternatives during bushfire. It is also an important source of historical information on the community’s roles and responsibilities during bushfire, and which stakeholder was considered responsible for community safety. Stretton’s (1939) pressure for dugouts would imply that the responsibility rested with the state and private sector and, as might be expected, there was some political resistance to the provision of shelters in fire-prone areas in Victoria. A ‘delegate to the science congress’ who also
happened to be a ‘Sydney wool authority’, and, therefore, might have some links to the country industries likely to be financially responsible for shelters that ‘lives had been lost in dugouts [so] bolder and less haphazard methods should be evolved to preserve the lives of bush workers’ (The Mercury 1939a; Morning Bulletin 1935a). To be sure, the standard of dugouts available on Black Friday varied widely with ‘many […] mere hollows in the ground with wooden roofs, which made them death traps for their unfortunate occupants’ (The Age 1939e; The Argus 1945f). Stretton (1939 p.19) appreciated such concerns and acknowledged that a ‘number of people’ survived Black Friday ‘because they did not use [a] dugout which was constructed above ground of corrugated iron and which stood among standing timber’. Against this, though, were the multitude of stories of survival that depended on the availability of a shelter. As a result Stretton (1939) emphasised the need for the state, private sector and scientific community to come together to design community dugout shelters that could adequately protect community members during bushfires, with this again indicating that responsibility for public safety during fires rested with the state and private sector.

After the Black Friday the lack of provision of shelters at mill-sites was negatively contrasted with wider health and safety policy, leading to public and media frustration of the lack of ‘legislation which will compel [provision of dugouts] as factory owners are made to instal [sic] safety devices’ (Courier-Mail 1939a). At Saxton Mill eight deaths resulted from overcrowding in the main dugout; 37 people survived in the main dugout, which was considered among the ‘best constructed in Victoria’ and an additional 6 in a Country Roads’ Board dugout (ABC 2003a; The Advertiser 1939d; The Argus 1939f; The Mercury 1939b). These crowded facilities led the eight deceased to seek shelter in their house and, ultimately, perish (ABC 2003a; The Advertiser 1939d; The Argus 1939f; The Mercury 1939b). The state and private sector was criticised for this, and other instances, where the community received no advanced warning of the fires, and instead fled to the dugouts after the ‘pitch-blackness’ of the fires alerted them to the threat (The Advertiser 1939d; The Mercury 1939b). Thirty survivors at Brown and Cecil’s Mill were, likewise, unsure of the imminent threat and relied upon a ‘crude’ dugout for survival (Tweed Daily 1939a). Survivors reported that if they ‘had to remain [in the shelter] for another half-hour [they] would have suffocated’ due to a lack of ventilation, while inadequate protection against radiant heat saw many ‘collapse’, and required that children’s faces were ‘constantly rubbed […] with mud’ to prevent ‘heat blistering’ (Tweed Daily 1939a). In these conditions and in their efforts to protect the wooden external supports from igniting, some occupants ‘broke under the terrible strain’ (The Advertiser 1939d; The Age 1939f; The Mercury 1939b).

Black Friday produced a major shift in community roles and responsibilities during fires, and re-emphasised the state and private sector’s responsibility to provide for public safety during disasters. This is not considered by the thesis to be a direct result of the fires, but instead the outcome of a fast-paced chain of linked events that created public pressure for change, and

66 Mr A. C. Blaxland.
the declining political power of country lobbyists. The stories of trauma and loss from Black Friday are likely to have had some effect on the post-Black Friday policy changes but in and of themselves are not significantly different to those reported after the 1926 bushfires that produced little in the way of fire safety-related policy change (The Age 1926a; 1926b; Glen Innes Examiner 1926a; Weekly Times 1926a). It is possible that the additional 11 deaths during Black Friday compared with the 1926 Black Sunday bushfires might have been enough for government attention to focus on the shelter problem but, in line with Kingdon’s (2013) view of policymaking and Aminzade’s (1992) work on the temporal characteristics of events, it is more likely that the fast-paced sequence of linked events (bushfire-related deaths) forced the shelter provision to prominence in the governmental agenda. Victoria and Australian newspapers after Black Friday underline public opinion and popular pressure for change, while Stretton’s (1939) work represented a major contribution to the policy primeval soup. The Black Friday bushfires proved, again, that where there were ‘no shelters […] appalling’ losses would accrue, against ‘few instances [of] loss of life’ where dugouts were available (The Argus 1939f; 1945f). The Victorian Labor Party criticised the Country/Nationalist Party’s failure to legislate on shelter after the 1926 bushfires and thus for allowing another ‘wholesale holocaust’ in the state (The Australian 1939c; The Examiner 1939a). Having ignored the problem of dugouts in high-risk areas for over a decade – outside of annual ‘circulars’ to millowners limply recommending shelters – the Victorian state government committed to the delivery of ‘specially designed dugouts and other shelters in all timber areas’ less than a week after Black Friday (The Argus 1939k; 1939l; Vic 1939a, p.1090, p.1116). Again, then, the community’s roles and responsibilities during fire are definitely not one involving self-protection, with the public safety issue linked to the state’s and private sector’s provision (or otherwise) of shelters.

The Forests Act 1939 (Vic) (s.13) followed 10 months later and, while not laying down specific standards for shelters, required the provision of dugouts for ‘any industrial operations’ in ‘any State forests or sawmilling operations in any part of a fire-protected area’, of sufficient size to offer ‘protection from fire to all persons employed at or in connexion [sic]’ with forest- or milling-related activities. By 1947 the Victorian state government boasted that ‘every small town, siding and mill [had] a fire-proof dugout’ that would be ‘bearable for a few hours’ (The Age 1947c; The Argus 1945f). These additions to Victoria’s public safety infrastructure offered a simple, safe alternative during bushfires. The need for such alternatives was underlined by the severity and speed of the Black Friday fires. Pre-fire evacuations of entire townships (or at least the women and children) were common, and appear to be the preferred public safety strategy. Moe and Trafalgar received ‘every woman and child’ from locally-menaced townships, Lorne foreshore became ‘one big camp of refugees’, while residents of Wood’s Point and surrounds evacuated to mineshafts, Mansfield, rivers, or railway tunnels (The Advertiser 1939c; The Age 1939i; 1939j; 1939k; The Argus 1939d; 1939aa). The Forests Commission took the lead in organising state, NGO, community and private actors helping in these evacuations, while the Brigades unsuccessfully sought a temporary suspension of the ‘pecuniary interest’ clause of the Fire Brigades’ Act 1928 (Vic)
(s.60 ss.3) to allow more general, forcible evacuations from fire-threatened areas (see also *The Age* 1939b). In contrast in areas where evacuation was not possible due to either communication breakdowns or isolation the community was forced to resort to dangerous self-reliant safety strategies. Generally, these strategies resulted from panic, such as the situation at Fitzpatrick’s Mill where unaware forest workers had ‘absolutely no chance’ of survival due to there being ‘no dugout’ available, with the sole survivor and Stretton (1939 p.5) describing the ‘desperate but futile’ survival strategies employed such as sheltering ‘behind sawdust heaps’ or in a ‘12ft water tank’, or fleeing on foot into ‘onrushing flames’ (*The Argus* 1939d).

Panic-based decisions to flee the fires also resulted in the deaths of the Kerslake family in a car after evacuating Feiglin’s Mill. Stretton (1939 p.5) noted a number of other cases of deaths of ‘[t]ravellers on highways’ perishing after becoming ‘trapped by fires or blazing fallen trees’ (see also *The Advertiser* 1939d; *The Argus* 1939m; *Healesville Guardian* 1939b; *Healesville and Yarra Glen Guardian* 1939a; 1939b). Other survival strategies, such as those that resemble the basic tenets of ‘Stay and Defend’, were noted in newspaper accounts of Black Friday but not commented on in Stretton’s (1939) Report. The omission of such events from Stretton’s (1939) Report is interesting as they were widely covered in newspaper reports (*The Advocate* 1939a; *The Age* 1939a; *Healesville Guardian* 1939a), occupy a prominent position in bushfire lore (Brennan 1979; Handmer & Tibbits 2005), and Stretton heard evidence both in the vicinity of examples of Stay and Defend-like approaches being practiced and from local forest officers (Vic 1939a; 1939b).

At Henderson’s Mill, Matlock the fire-threat was not recognised until the fires ‘swept down from three sides’, with those trapped seeking shelter in a brick-built house (*The Argus* 1939d). The occupants sought to protect the property from outside for as long as possible by keeping ‘window frames and doors doused with water from outside’ before entering the property when the fire approached and continuing to keep the structure from igniting (*The Argus* 1939d). When the house ignited those present ‘retreat[ed] t the two back rooms’, suffering ‘incredible torments’ in the process as one occupant died (*The Argus* 1939d). The remaining 23 ‘got out of the house [and] fled behind some water tanks in a clearing over which the fire had passed’ (*The Argus* 1939d). In another case, at the Erica Hardwood Company Mill, Brennan (1979 p.87) described how those trapped:

filled every available vessel with water and packed the women and children into a three-roomed hut which had a vegetable garden around it.

They covered their eyes with a wet rag, for the room was full of ash and sparks. One little girl […] spent the whole siege gaily putting out these
intruders. Every so often the men, using iron shields, made sorties outside to beat out the flames which were attacking the house.

There might be doubts of the veracity of such accounts. At the Matlock Mill there are differing claims as to whether a dugout was used or not and the name of the mill in question (compare The Argus 1939d; The Australian 1939a; Sunday Mail 1939a). At Erica contemporary newspaper accounts differ amongst themselves and with later secondary sources on the number of people and buildings that survived the fires, and the fire-fighting equipment available. Brennan (1979) and Handmer and Tibbits (2005) suggested 22 survivors, while Healesville Guardian and Northern Star (1939a) totalled 20: Brennan and Handmer and Tibbits implied residents protected structures by beating out flames, while The Advocate (1939a) implies some form of mechanical fire-fighting equipment being available (see also Healesville Guardian 1939a). Stretton’s (1939) failure to comment on these matters makes it difficult to accurately summarise the conditions at each site, but implicitly indicates that self-protection was not a preferred safety strategy at this time.

It is important to recognise that in both examples of a Stay and Defend-like response to fire the strategy was implemented as a last-resort when evacuating was impossible. Only one instance has been found in the literature of structure being prepared to protect life that was not a last-resort survival strategy, though this was not done with the intention of protecting human life. At the Healesville Animal Sanctuary ‘rare fauna’ were sheltered in the bedrooms of a house within the Sanctuary, while fire-fighters and volunteers made plans for the house ‘to be drenched with water […] in the event of the outbreak reaching the Sanctuary’ (Healesville Guardian 1939c). It is not clear whether the animals were domiciled for their own protection or for the protection of others from potentially aggressive wildlife. Regardless, the action implies some understanding that life could be protected by the house, and that the structure’s chances of survival would be enhanced by preparing it for fire through ‘wetting down’ the exterior. It had been understood since the 1850s that houses could be built to withstand bushfires, and these three examples together – Matlock, Erica and Healesville – imply some understanding that houses could preserve life where appropriate preparations were made. Yet in none of these examples was human life entrusted to a house-as-shelter strategy unless as a last resort; the preparations to protect the building sheltering the animals at Healesville contrasts with humans at-risk being evacuated (The Argus 1939b; Healesville Guardian 1939a). Similarly, the survivors from the Erica and Matlock mills were evacuated after the fires had passed through due to Forest Commission concerns that the situation was ‘still dangerous’ (The Argus 1939d; Northern Star 1939a). In these cases, such evacuations were made for purely humanitarian reasons. However, in other areas such evacuations served as a means to equip and mobilise additional counter-disaster resources by identifying suitable residents to recruit into the fire-fighting or support effort.

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67 One of the animals domiciled (Horatius, an eagle trained for falconry) was notoriously aggressive and would later embarrass Sanctuary workers by attacking a visiting American celebrity in March 1939 (The Argus 1939a).
7.3.2 After Evacuation: Community Roles and Responsibilities in Fire-Fighting in the 1930s and 1940s.

The catastrophic fires of Black Friday led to a temporary blurring of the fire-fighting roles of Brigade members and residents. Since the 1920s it had been recognised that ‘250 men well led’, trained and equipped as fire-fighters would ‘give a better account of themselves than a rabble of 1,000 men’ (The Argus 1927a). These views continued into the 1930s, where a distinction between fire-fighters and residents existed prior to Black Friday (Friday 13 January 1939) can be seen in an appeal made by the Forests Commission on Wednesday 11 January. Initially, the Forests Commission sought ‘more volunteers’, but stressed that volunteers had to be ‘experienced men with knowledge of the bush’ (The Argus 1939n). Inexperienced men were considered a ‘danger to other fire-fighters as well as themselves’ (The Argus 1939n). The pre-Black Friday volunteers were generally placed with experienced personnel and/or provided with ‘equipment which [had] been held in readiness for major disasters for several years’ (The Argus 1939c; FCV 1939a). A parallel ‘unofficial’ call for volunteers irrespective of experience was immediately withdrawn by the Forests Commission after it was found to have ‘hinder[ed]’ fire-fighting due to the need to train and manage such volunteers (The Argus 1939n). Where there was no alternative experienced fire management personnel would make use of inexperienced volunteers but, prior to Black Friday at least, these were necessary responses to an immediate threat (e.g., Western Mail 1939a).

When the fires worsened on 12 and 13 January the requirements of experience for those wishing to help were lowered, resulting in the state-wide mobilisation of an ‘army’ of resident ‘helpers’ to fight fires at ‘Whittlesea, Kinglake, Arthur’s Creek […] Yarra Glen, Panton Hill, Christmas Hills, Warrandyte, Eltham’, and elsewhere (The Argus 1939c; The Advertiser 1939a). The Forests Commission comprised the central spoke in an inter-organisational network made up of various state bodies, community, NGO and private actors that prepared and directed volunteers, including ‘white-collar workers and workmen’ who had been ‘released from their jobs because of the heat […] quickly [filling] waiting lorries’ and departing to assist at the fire-ground (The Recorder 1939a). The thousands of country and city volunteers so convened went out in ‘unofficial parties’, working under the direction of more senior volunteers at fire-fronts, assisting auxiliary and support services, or under their own recognisance in ‘mopping up’ activities (The Argus 1939c). The Forests Commission’s concerns regarding the negative effects of inexperienced personnel were realised, with The Advertiser (1939e) finding that ‘[a]bout 50 per cent of the volunteers from the city were useful, but others were just the opposite’. The story of a local trying to ‘save something of his fencing’ and being told by ‘city-volunteers’, furnished with ‘knapsack extinguishers’ to ‘“Let ‘em burn” was an example of this, as was the story of ‘volunteers
from Northcote’ who did not ingratiate city volunteers to country folk (The Advertiser 1939e). The Northcote-volunteers arrived ‘with the remains of two nine-gallon kegs of beer’, commandeered a mail-truck and ‘drove it down the road where it crashed into another truck, severely damaging both vehicles’ (The Advertiser 1939e). One of the Northcote-volunteers subsequently ‘stopped a car going towards Melbourne and asked for a lift to the city’, before regaling the driver and passenger ‘with great pride’ stories of ‘what fun they had had’ and how they had stolen the truck, not realising that the driver and passenger were police officers (The Advertiser 1939e).

The number and variable quality of volunteers motivated by Black Friday hinted at the key difficulty in Victoria’s bushfire problem. Widespread support for fire-fighting activities on Black Friday contrasted the ‘apathy’ that Stretton (1939 p.5) noted regarding fire-prevention activities. The issue was raised again after the 1943/1944 bushfire season when Kemp68 (in The Truth 1944a) praised the efforts of ‘“at least 30,000 fire men – civilians, auxiliary firemen and servicemen”’ but lamented the need for such a fire-fighting force. In 1944 fires were causing ‘appalling devastation’ throughout the state, with the ‘tragedy’ that had such ‘“manpower […] been made available earlier in the season to burn off scrub and grass all fires, death and destruction could have been avoided”’ (Kemp in The Truth 1944a). These issues had been recognised after the 1939 fires, where Stretton (1939), the media (The Age 1939h; 1939i) and public opinion (The Argus 1939o) appreciated that deficiencies in public engagement in fire prevention and mitigation had contributed to the intensity of the Black Friday fires, and thus to the losses during the season. Victoria’s fire services had failed to motivate community engagement with their state-defined roles and responsibilities, or even conformity with the law. The community, of course, shares some burden of responsibility for the failures of Victoria’s fire management strategy, with contemporary accounts estimating that over ‘90 per cent’ of the fires burning during the 1938/1939 season resulted from ‘illegal burning off’ (The Age 1939d). The problem of human agency would remain as high in Victoria’s ‘Second Golden Age’ as it did during the period through to Black Friday, with over 50 per cent of fires in both periods attributed to settlers and landholders, ‘grazing interests’, and ‘sportsmen, campers and tourists’ (see FCV 1927a; 1939a; 1952a). It can be said then that careless or malicious fire-lighting had not been restrained after Black Friday, with little or nothing done to address the problem of illegal fire-lighting by graziers (Stretton 1944, p.7; 1946, pp.12-13), and thus the risk of another major fire remained high. The creation of the CFA went some way towards reducing the risk of fire-related losses by producing a modern, militarised fire-service but this did not adequately address the human factors underlying Victoria’s bushfire problem. Instead the CFA’s successes in preventing and suppressing fires according to central plans and tactics during the Second Golden Age would see the tensions between stakeholder goals and values – the root cause of the role of the ‘hand of man’ in Victorian bushfire – build as socio-economic, demographic, cultural and political change increased Victoria’s vulnerability to bushfire.

68 J. Kemp. Chief Officer of the Metropolitan Fire Brigade.
7.4 The Second Golden Age: Rural Reform in Victoria 1940s to 1950s

Country Victoria’s post-Second World War ‘Golden Age’ when Commonwealth and state governments focused attention on the means to reverse the declining socio-economic and demographic vitality of country areas. The policies and practises utilised to address these declines produced limited successes in the 1940s and 1950s but laid the foundation for major socio-economic, demographic, and cultural change in fire-prone areas in the 1960s that would alter the community’s relationship with Victoria’s fire services, and the fire management roles and responsibilities of both key actors. The changes were set in motion by the declining profitability of Victoria’s country-based industries, as the combined effects of the 1929-1939 Great Depression amid a ‘disastrous pre-war slump in agricultural commodity prices’ caused ‘thousands’ to leave country Victoria for Melbourne (Canberra Times 1972b; Infrastructure Victoria 2016a, p.10; Murray & White 1995; Whitford & Boadle 2008, p.526). The war itself led to restrictions on ‘essential materials, and loss of markets’, leading to the view that the ‘outlook [for country areas] was bleak’ (Canberra Times 1972b; Whitford & Boadle 2008, p.526).

Both the community and the state’s efforts to mitigate (or even reverse) this decline had negative run-on effects for fire management. The picture of rural decline presented in the Commonwealth-appointed Rural Reconstruction Commission (1943-1947), where “nearly every form” of Australian agriculture required financial assistance from the state to be viable is contrasted with acknowledgement that some rural producers had ‘never been so much in credit’ (Ritchie 1945, pp.165-166). The paradox was explained by the ‘modernisation of agriculture’ which served both to increase the efficiency and profitability of some farms, whilst also restricting employment and forcing yet more ‘population loss across many rural areas’ (Esplin et al. 2003, p.16; Ritchie 1945, p.166).

More generally Victoria’s producers were experiencing a ‘cycle of decline’ that left them financially unviable; lower prices for agricultural products led landowners to consider new sources of revenue including offering and dividing lands under leasehold arrangements to other producers. Leasehold arrangements, however, incentivised the lessees ‘leav[ing] the land completely exhausted [by] the end of the lease’ to maximise return on their investment (Ritchie 1945, p.167). For graziers, this meant larger and more frequent burning of lands to clear scrub for new grass growth, and exceeding the carrying-capacity of pasturelands. The result was a temporary increase in income at the expense of increased fire-risk as both burning and over-stocking lands fostered scrub growth (Esplin et al. 2003, p.16; Rodger 1961; Stretton 1946; Whitford & Boadle 2008; 2009). The Rural Reconstruction Commission (in Whitford & Boadle 2009 p.60) estimated that such ‘exploitative grazing’ left ‘millions of
acres of grazing land in Victoria [without] top soil’. The environmental impacts of such practices led Stretton (1946 p.13) to sit for a third Royal Commission on ‘Forest Grazing’, which found it ‘true beyond the barest possibility of doubt’ that graziers were burning forested areas, and causing both fires and desertification, ‘with an untroubled conscience’. Further, the splintering of previously large agricultural holdings into smaller leasehold arrangements increased the number of graziers active in an area and, thus, led to both an increase in potential fire-lighters and created difficulties in controlling the condition of land through confusing ownership arrangements (Stretton 1939; 1944; 1946). The Rural Reconstruction Commission pressed for a return to arrangements based on owner-occupation of land, with this considered the ‘“most satisfactory basis of individual holding of agricultural land”’ due to the owner’s incentive for proper land husbandry, and offered a raft of recommendations to facilitate this (Whitford & Boadle 2009, p.61).

The Rural Reconstruction Commission considered a mixture of ‘loans’, ‘incentives’ and financial assistance to be crucial to breaking the ‘cycle of decline’ in country areas (Whitford & Boadle 2009, pp.58-59). The Commission warned against too-great state and Commonwealth involvement in country recovery, as Wadham – the ‘most forceful Commissioner’ – criticised the ‘culture of rural dependency’ and loss of ‘independence of thought’ that followed earlier state financial assistance for depressed areas (Whitford & Boadle 2009, pp.58-59). The result, for Wadham, was that the state had ‘“transformed farmers into mendicants”’ (Whitford & Boadle 2008, p.532; 2009, pp.58-59). The solution for the Commission was to foster “good spirit” in rural townships by encouraging ‘self-help, voluntary association and collaboration’ (Esplin et al. 2003; Ritchie 1945; Whitford & Boadle 2008; 2009, p.62). The Commission’s recommendations were not readily translated into policies due to disagreements and tensions between the state and Commonwealth levels of government. Those that were – including improvements to education, health and housing services, transport infrastructure, and state-support for irrigation and drainage schemes – provided a foundation for rural rejuvenation.

Irrigation and land drainage schemes helped facilitate and establish ‘small-scale farming’ in country Victoria, which was a driving force in the ‘expansion of many country towns’ (Infrastructure Victoria 2016a, p.11; Lake 1987; Whitford & Boadle 2008; 2009). The Argus (1949a) summarised that ‘irrigation is population!’, with this a reference to the role played by improvements to the condition of lands through irrigation and drainage that allowed ‘a man [to] live successfully and happily on the [produce] of 80 acres’ whereas, historically, ‘a man would starve on 1,000 acres’. Scientific advancements allowed for improved yields in marginal lands, with the Big and Little Deserts on the South Australian-Victoria border potentially made productive through CSIRO research (The Argus 1951a). These potential advances, however, clashed with a growing ‘environmental movement [that valued] wilderness over agricultural land’, and produced tensions between environmentalists and the state over the development of the Little Desert (Brett 2011, p.38). The state’s ‘disbelief’ that
the public ‘would fight to preserve straggly Mallee scrub when they could have it cleared to create pleasant and productive green pastures dotted with woolly sheep and contented cows’ was a portentous sign of future tensions between community and state goals for the natural environment (Brett 2011, p.38). More generally, the partial-resurgence of agriculture, together with the spatial changes promoted through improvements to production techniques, made it ‘possible, practicable and economic to provide good all-weather roads’ to country areas as the ‘higher values’ of land and produce created incentives for improved transport infrastructure, and helped facilitate the electrification of country areas (The Argus 1947b; 1949a). In the ten years 1938-1948 ‘consumers outside the metropolitan area […] doubled, and electrified farms increased fourfold’ (Wodonga & Towong Sentinel 1948a). Together with growing economic prosperity in country areas these factors helped facilitate the Rural Reconstruction Commission’s goals of ‘better schools, cultural facilities, medical and shopping services, and more social and community opportunities within reasonable distance’ in country areas to provide ‘rural life under almost urban conditions’ (The Argus 1949a; Whitford & Boadle 2008; 2009).

The combination of urban amenities and the ‘sense of spaciousness and independence’ of country living addressed the post-war rural ‘cycle of decline’, at the expense of increasing Victoria’s vulnerability to fire (Weekly Times 1948b; Wodonga & Towong Sentinel 1949a). Victoria’s urban centres were becoming crowded following a surge in population in the state in the 1950s from 2,200,000 at the beginning of the decade to 2,800,000 by the end, with 80 per cent of this growth concentrated in the metropolitan area (Infrastructure Victoria 2016a; Western Herald 1962a; 1962b). This concentration created a ‘serious problem’ for both urban and country areas (The Argus 1956a). The state government moved to ‘decentralise’ industry and population by offering incentives for settlement in country areas, with these programs producing mixed results in the 1950s (see The Age 1950a; 1974a; The Argus 1956a; Canberra Times 1962i; 1972b; Esplin et al. 2003; Lake 1987; and Wodonga & Towong Sentinel 1946a for a review). By the mid-1960s the sharp increase in vehicle ownership in Victoria, together with the declining standard of living in urban centres and opportunities for ‘urban-like’ living in country areas prompted a population shift towards country areas, and increased recreational use of Victoria’s countryside (Infrastructure Victoria 2016a; Murray 2014; Weekly Times 1948a). These new arrivals brought with them different understandings and values that considered Australia’s ‘unique biota’ something to be enjoyed, and looked unfavourably on older, destructive/exploitative uses of country areas (Pyne 2015, p.368, p.372). The result was a growing ‘pluralism rather than homogeneity’ of values and goals in country Victoria that created tensions in fire management. The CFA’s emphasis on central plans and centrally-defined goals, together with the limited scope for action held by the Local and Regional Advisory Committees, meant that Victoria’s fire management strategy struggled to integrate alternative goals and values. The apparent goal-incompatibility between the local desire to preserve and protect Australia’s remnant native vegetation, and the perceived destructive practises of the centre, including fuel-reduction burning that were
considered necessary to protect the rapidly increasing population and assets in fire-prone areas (Pyne 2015).

The beginning of the socio-cultural shift in public attitudes to fire and environmental management can be seen in the 1950s. Murray and White (1995 p.177) reflected on the 1950s as a period where ‘the old subdivisions and shacks of the pre-war years’ were repurposed as ‘weekenders, undisturbed but often overgrown’. Reports of careless or malicious use of fire by settlers, graziers and millers (etc.) in the media were replaced by concerns of the risks posed by tourists and new migrants, “‘fools’”, who did not appreciate the risk of fire caused by their use of country areas, or by their failure to properly prepare themselves and their property for bushfire season (Robertson69 in Shepparton Advertiser 1952b). Such ‘fools’ were said to be increasingly common in country Victoria. Daw (in Shepparton Advertiser 1952a) demanded that ‘more be done in fire protection’ by these groups. Dodgshun70 agreed that the rural population were ‘making little effort to guard against bushfire’ (in The Argus 1952a). These were nation-wide concerns, as Kingsmill71 (in Sunday Herald 1951a) warned ‘bluntly and fairly’ that tourists and new arrivals in country areas had to do more to reduce their effect on fire risk. Kingsmill (in Sunday Herald 1951a) advised that new arrivals follow the methods of “[c]ountry folk’ who, having lived ‘near the danger longer’ were more likely to ‘realise the value of precautions’. There is, of course, a revisionist element to these concerns, especially when Stretton’s (1939) criticisms of country apathy and ignorance are considered. It is certainly true, though, that the key sources of fire risk and vulnerability in country areas were being changed by socio-economic, demographic and cultural shifts and so the fire services’ efforts to ‘awaken’ the public to its ‘responsibilities’ in fire management are justified (Sunday Herald 1951a). However, the increasingly diverse and politically active population in fire-prone areas would challenge the state’s assignment of fire management roles and responsibilities, as well as fire policy more generally, so as to require a reformation of Victoria’s public safety strategy that could better integrate the growing activism of at-risk populations. The state’s unwillingness and/or inability to either curtail development in fire-prone areas or increase the capacity of Victoria’s fire services, coupled with this changing socio-economic, demographic and cultural climate led to the shifting of responsibility for public safety to the community through the Stay and Defend and later Stay or Go survival strategies.

7.5 ‘New Australians’, Conservationists and Fire management c.1960s-1970s

69 Sir Horace Robertson, Director of Recruiting.
70 Keith Dodgshun, Victorian Chief Secretary.
71 A. Kingsmill, executive member of the NSW Bushfire Committee.
The emergence of the ‘New Australian’ cultural movement during World War Two had developed into a unique identity by the end of the war, and owed much to its establishment to its rejection of the markers of its previous ‘European Australian’ identity (Blai\-ney 2014; Pyne 2015). Pyne (2015 p.322) distinguishes ‘New Australians’ from ‘European Australians’ by noting the ‘radically different circumstances’ of Australian society pre- and post-Second World War. New Australians reflected the new Australian identity produced by the ‘general realignment’ of Australia’s ‘political, economic, and social interests’ and the emergence of a home-grown culture that (amongst other things) highly prized the uniqueness of the Australian environment. This included a desire to protect and foster Australia’s remnant native flora and fauna as a means of reversing the negative effects of ‘European Australians’, with this ‘European’ identity described as involving a desire to impose European (i.e., Anglo) principles and species onto the Australian landscape, and more generally as little more than a ‘compliant member of the British Empire’ (Milton et al. 1984; Pyne 2015, p.322).

The ‘environmental legacy’ of European Australia was considered an ‘embarrassment to many’ that Pyne (2015 p.368) compared with Australia’s ‘heritage of Aboriginal relations’. Stretton’s (1939 p.11) description of the ecological damage caused by graziers, settlers and foresters (among others) was mirrored in Milton and colleagues’ (1984 p.1) concern that European settlement had ‘dramatically’ altered ‘fire regimes of many, if not all, of the forest ecosystems’ for the sake of economic and demographic development. Forest management had dramatically ‘alter[ed] the pattern of species’ by creating fire-susceptible homogeneous strands of trees (Milton et al. 1984, p.1). These areas were ‘managed’ by European Australians who used fire as a land management tool with ‘ignorance and fear, and without sufficient understanding of [its] long-term impacts’, particularly for the state’s fire risk (Milton et al 1984, p.1).

That the New Australian’s presence in fire-prone areas and the surge in country populations after World War Two contributed environmental degradation was, apparently, not appreciated by the New Australian movement or its conservationist wing. The Victorian state government’s post-war development plans for country areas addressed the problems of overcrowding in urban areas through the creation of an ‘enlarged metropolitan planning area’ comprised of ‘satellite towns’ around Melbourne, and new ‘dormitory suburbs’ in country areas, including those with prized natural amenities (\textit{The Age} 1973d; Barber 1981; \textit{Canberra Times} 1968a; Infrastructure Victoria 2016a, p.16). This was achieved through $127,000,000 of investment and inducements for industrial development outside the metropolitan area, resulting in the transfer of ‘2,900 industries’ to country areas, and ‘much higher [population growth] in rural than in metropolitan areas’ in the 1970s (\textit{Canberra Times} 1965b; 1979a). The population of country/regionalVictoria increased from 592,918 to around 1,000,000 in

\footnote{‘Regional’ and ‘Country’ Victoria are not exactly synonymous, though exact figures for growth in areas serviced by CFA from this period are unavailable. These estimates are considered sufficient to demonstrate that there was a substantial growth in population in non-urban areas in the period under review.}
the 1970s, as the previously (relatively) homogeneous social make-up of fire-prone areas shifted to a heterogeneous mixture of “[r]uralites, exurbanites, environmentalists, foresters, outstation Aborigines”, and other groups, that valued and used the ‘bush’ differently (Blainey 2014; Canberra Times 1976c; CBCS 1949; Pyne 2015, p.408). These new arrivals satisfied some the state government’s policy goal of achieving a ‘dramatic decline in the “drift to the city”’, but produced socio-cultural and political changes that were problematic for fire management goals. These included local pressure for involvement in fire management and environmental policy decisions which, due to the size of the New Australian movement and its vocal nature, saw residents with ‘no experience with fire’ exert influence on the state’s fire strategy (CFA 2008a; Esplin 2003, p.16; Gledhill 2003; 2008; Hill 1998, p.35; Whittaker & Mercer 2004).

The effects of a growth in the proportion of residents in fire-prone areas with no experience of fire management were twofold. First, at the community level the cultural value attached to Australia’s native flora and fauna saw the New Australians strive to replace ‘exotic’ species with ‘more indigenous’ ones in the countryside, to foster and increase the prevalence of indigenous species in the environment, and to promote the shift in use of country areas from ‘commodity production’ to ‘recreational uses’ (Pyne 2014, loc.7949; Whittaker & Mercer 2004). These goals led to tensions with Victoria’s fire managers. The conservationist element was successful in reducing the use of large-scale, aerially-ignited fuel-reduction burns both through their organised political action, and the spatial changes made to the environment by their settlement in country areas (Milton et al. 1984). Large-scale fuel-reduction burns, particularly those involving aircraft, were depreciated by conservationists due to their similarity to the fire management practices of ‘European Australia’, and the indiscriminate nature of such burns (Milton et al. 1984; Pyne 2015). Milton and colleagues (1984 pp.9-12) appreciated the ‘impact of control burning on flora’ as a ‘matter of considerable concern and debate’, due to it involving a diverse set of ‘management problems’ between conservation and risk-reduction. Alternative methods of fuel-reduction, such as manual removal of vegetation (fuels) were depreciated due to its ‘labour intensive’ nature and cost, but considered as an alternative due to the need to preserve the ‘aesthetic and cultural value’ of fire-prone peri- and semi-urban areas (Milton et al. 1984, p.14). Further, the effectiveness of aerially-ignited burns in protecting country settlements, where they were most needed, was limited; large-scale burns were impractical (and impracticable) in such areas due to relatively low area that could be treated due to increased population density, the risks of escape, and public concerns such as those related to the health effects of smoke (Milton et al. 1984; Miller et al. 1984; Gill et al. 2003). The organised and vocal segment of new migrants engaged in political ‘blocking’ activities to protect Victoria’s bush from burning and, instead, pushed policymakers to ‘live in harmony’ with the natural environment through more environmentally-focused policies, and thus influenced fire prevention and mitigation strategies (Blainey 2014; Kingdon 2013, pp.163-164; Milton et al. 1984; Pyne 2014, loc.8046-8047).
Secondly, the New Australian’s fondness for Australia’s native flora caused additional problems for fire management as it manifest in encouraging ‘aesthetically pleasing’ vegetation around properties and settlements in the ‘urban bush’ (Berringer 2000, pp.1-2; Milton et al. 1984, p.14; Pyne 2014, loc.8052). Residents valued living in such a ‘natural setting’ to such an extent that some semi-urban locations came to be ‘encircled by bush’ (Berringer 2000, pp.1-2; Murray & White 1995 p.177). Larkins73 (in Canberra Times 1962c) expressed dismay that the ‘impetus and warnings his [CFA] had given’ had not produced a more fire-minded attitude among communities-at-risk. The deaths of eight people during the 1961/1962 bushfire season, the cause of Larkin’s (in Canberra Times 1962c) outburst, was attributed to residents’ preference for ‘scrub [to grow] right up to the side of houses’ to enjoy the natural aesthetic (see also COAG 2004; Murray & White 1995). This enjoyment, and the associated vegetation, were a ‘public declaration’ of New Australia’s ecological and cultural superiority over European Australia but, worryingly, such declarations tended to occur in areas with the ‘greatest […] potential for [fire] disaster’ (Pyne 2014, loc.8035-8052).

The combination of ‘bush and city’ in peri- and semi-urban areas ‘horrified fire officers’(Larkins in Canberra Times 1962g; Pyne 2014, loc.7948-8035). The new residents in such areas were generally from ‘the city’, and characterised as ‘mainly people who had not been near [a] fire and would not know how to control one’ (Larkins in Canberra Times 1962g; Pyne 2014, loc.7948-8035). Because of this lack of experience of fire community members were criticised for having taken ‘no precautions to protect themselves from fire’ (Larkins in Canberra Times 1962g; Pyne 2014, loc.7948-8035). These criticisms and concerns are justified, but continued to privilege central goals over local goals, and therefore perpetuated tensions in the community’s fulfilment of its fire management roles and responsibilities. Instead of acknowledging and working to integrate the differing goals, values and attitudes of different community segments, Victoria’s fire management continued to work towards ‘social control’ so as to promote conformity with centrally-defined rules and regulations (Dynes 1983, pp.657-658; Takeda & Helms 2006, p.205). This approach produced the same problems of ‘apathy and ignorance’ that had marked Victorian fire management in the first half of the 20th century, in part because it retained a militaristic focus on ‘right’ and ‘wrong’ actions, goals and values for residents in fire-prone areas rather than attempting an integrative, cooperative approach to conflicting and apparently contradictory goals and values (Follett 1924; 1925).

The need for fire services to re-assert social control over the community was raised by the findings made during the 1983 Ash Wednesday bushfires, where most deaths were linked to deficient understanding and/or individual failures to take responsibility for safety outcomes during the fires (e.g., Krusel & Petris 1992; Lazarus & Elley 1984; Miller et al. 1984; Wilson & Ferguson 1984). That 25 of the 32 civilian deaths during Ash Wednesday described by Krusel and Petris (1992) were linked to these deficiencies and failings was considered

73 A. W. Larkins, CFA Chief Officer.
evidence that the state should fully formalise the existing Civil Defence-like community training and education programs. Miller and colleagues (1984) had agreed that the community training and education approach was an effective means of reducing vulnerability to hazards, but found deficiencies in the way it was applied. Thus, the CFA combined the existing Civil Defence-like training and education approach with the community-group based approach favoured by Jones (1987), Krusel and Petris (1992), Silberbauer (1990) and Whelan (1987) to improve the capabilities of those intending to Stay and Defend. The remaining 7 deaths analysed in Krusel and Petris (1992 p.6) were considered ‘incapable of implementing an effective survival strategy’, and thus would not benefit from refinement of the Stay and Defend approach. To accommodate this vulnerable segment of the community Victoria’s bushfire management strategy the Stay and Defend approach combines with advice that vulnerable and/or unprepared residents should evacuate early when threatened by fires, and thus Stay and Defend evolved into Stay or Go.

7.6 From Stay and Defend to Stay or Go

To understand how Stay or Go became formalised policy in Victoria in the 1990s, continuities and changes in the state’s policy and strategy for clarity have to be considered. The historical trend for advice to Stay and Defend was challenged by the post-Ash Wednesday research focus on the factors that made people ‘incapable’ of Staying and Defending, but the overarching push towards social control and behavioural change, manifest as individual/community responsibility for bushfire safety, was maintained by advising these vulnerable people should decide to Leave Early. In understanding this shift from Stay and Defend to Stay or Go it is therefore important to stress that the policy introduced new elements – most notably the concept of Leaving Early – but still relied on a largely paramilitary and Civil Defence-like approach to disaster planning and management, and to locate this in the Australia’s broader policymaking choices in the 1990s.

In the early-1990s conditions in the politics and policy streams in Australia were advantageous for pushing policy solutions that emphasised self-reliance. The economic rationalist/neoliberal political context at both the Federal and state levels led to a ‘great reform era’, which emphasised the principle of letting ‘markets pick winners and restore prosperity’ rather than utilising more direct social welfare policies (Brett 2011, p.49; Bryant 2015, p.15). This can be seen in economic policy, including the decisions to privatise state assets, float the Australian dollar, and in labour market reform, with these principles also influencing both disaster and social policies. The overlap between these three policymaking arenas, and the influence of economic rationalism in each, is best demonstrated by the recasting of ‘farms as businesses and farmers as business owners and entrepreneurs’ (Brett 2011, pp.49-50). The farmer-as-entrepreneur frame helped justify a 1992 amendment to the
National Drought Policy, where drought became considered a ‘risk’ facing the farmer **qua** entrepreneur that should be met through ‘appropriate risk management strategies’, rather than a ‘natural disaster’ requiring state assistance (Brett 2011, pp.49-50). Farmers that could not maintain their businesses became ‘bad risk managers’, rather than ‘battlers’ (Brett 2011, pp.49-50; Pilger 1992, pp.334). More generally, policies encouraged country regions to ‘take responsibility for their own futures by becoming more self-reliant, more entrepreneurial, [and] more creative’ as part of a push towards local governance in the 1990s (Brett 2011, p.52). The state would offer ‘some assistance’ in fostering self-reliance and entrepreneurship through ‘leadership training’ and efforts to ‘mobilise social capital’ but, more generally, the state and Federal Governments’ attitudes could be summarised as ‘don’t look to government to bail you out; you’re on your own’ (Brett 2011, p.52).

The paradox in the fully developed Stay or Go policy is that the push towards self-reliance was complemented by a continuity of emphasis on Civil Defence and militarism. Hence, policymaking for public safety during bushfires in the 1990s and 2000s would see new building standards and vulnerability-reducing legislation introduced, and the incorporation of the Leave Early component to public safety advice. At the same time, these changes to Victoria’s bushfire-relevant building codes were limited in scope and did little to reduce vulnerability in pre-existing settlements and buildings, and thus required continued investment in asset-protection. Similarly, the addition of a Leave Early component to Stay and Defend and the CFA’s new focus on community empowerment through local social and human capital building programs in fire-prone areas were clear changes to its existing public safety strategy, but these also represented a continuation of the Civil Defence-like approach to public safety by emphasising self-reliance, training and education as effective tools to reduce losses.

The three principal programs utilised to build social and human capital – Community Fireguard, Bushfire Blitz and FireReady Victoria – were described as working to enhance ‘individual responsibility for fire safety’ through a ‘novel, social’ approach where the CFA worked with local communities, or community groups, to build local capacity to protect people and property from fire (Rohrmann 2003, pp.114-115). Community Fireguard, the first of the CFA’s group-based training and education programs, was considered indicative of a ‘broad paradigm shift’ in the CFA’s approach to managing bushfire risk, and praised by the United Nations for having departed from the traditional, Command-and-Control (or ‘top-down’) approach to public safety (Packham 1995, pp.41-42; Rhodes 2009; Rohrmann 2003; UN 1996a, pp.23-24). Rather than ‘tell[ing] people what to do’, the CFA’s methods in the 1990s involved ‘in-depth community education programs’ designed to ‘enable [community groups] to choose the most appropriate strategies’ for their local context, and to further ‘develop them for their own use’ (UN 1996a, pp.23-24). The Bushfire Blitz program, similarly, was praised for its ‘broadscale interactive education program’ that engaged ‘thousands of residents each year’ in discussing ‘bushfire risk, personal safety, house survival
and bushfire planning’ in a manner more manageable than the ‘intensive’ Community Fireguard program (Esplin et al. 2003; Hill 1998, p.36; Rhodes 2009).

Despite claims that these programs represented a ‘broad paradigm shift’ and adopted a ‘novel’ approach, there was not much new in the CFA’s ‘new’ programs. The CFA’s volunteers’ spatial and social embeddedness in fire-prone communities, due to their dual-role as community members and representatives, had provided ‘countless’ informal opportunities for conveying bushfire advice and information to residents prior to the paradigm shift in the 1990s (CFA AR2008; AR2010, p.10; Gilbert 2007). The shift in focus towards community groups and mobilising the ‘resources of the community in a self-help mode’ to tackle the fire problem was based on existing policy discourse about building local social and human capital reserves, with Community Fireguard an attempt to translate the gains of the Neighbourhood Watch program to bushfire management (Brett 2011; Hill 1998; Jones 1987; Krusel & Petris 1992; McWaters 1998; Packham 1995, pp.40-41; Silberbauer 1990; Whelan 1987).

Community Fireguard added a Civil Defence-like training and education component to the Neighbourhood Watch, so as to facilitate ‘small groups of neighbours [in developing] bushfire safety strategies that vary according to each individual’s particular circumstances, environment and governing values’ (CFA 2010a, pp.11-12; Hill 1998, p.36; Rhodes 2009). Bushfire Blitz and Community Fireguard shared a similar focus on the need to provide ‘quality education and information from which decisions can be made’, with the former offering locally ‘contextualised’ information’, and the latter a broader integrated ‘media campaigns, internet, print and video material, school education and information sessions’ developed by the CFA, DSE and MFB (CFA 2010a, p.8; Rhodes in Elsworth 2008, p.25; Esplin et al. 2003, p.133; Hill 1998, pp.37-38).

At their core all three programs shared the goal of creating ‘safe, self-sufficient’ communities in fire-prone areas by encouraging residents to ‘accept responsibility’ for fire outcomes, and ‘increasing the capacity of people in Victoria to prevent, prepare for, deal with and recover from bushfires’ (CFA 2008a, pp.2-3; CFA AR2003, p.2). It was expected that this approach would result in ‘many more lives [being] saved in Australian wildfires’ by fostering such community-ownership of local bushfire outcomes (Packham 1995, pp.40-41). As in the pre-Ash Wednesday context these programs reflected the CFA’s understanding that the CFA could not ‘provide every person and home with individual protection during a major bushfire’, and that ‘bushfires are survivable if people take responsibility for their fire safety and prepare themselves for the event of a fire in their area’ (The Age 1970a; Boura 1998; Canberra Times 1981c; 1983a; CFA AR2001, p.27; AR2010, pp.11-12; Good Neighbour 1962a).

Alternatively, the CFA (CFA AR2008, pp.30-31) sought to promote ‘attitudinal and behavioural change’ in fire-prone communities through training and education. These programs sought to train, educate and empower community members in making decisions whether to Stay or Go, and to prepare suitable pre-fire plans and activities to facilitate this decision. These goals are considered analogous to Fritz and Mathewson’s (1957 p.90) Civil
Defence-inspired view of good disaster planning and management as the ‘organisation, training, integration and coordination of […] the general populace’ with more formal emergency and disaster-relevant organisations before the ‘stress and chaos’ of a disaster event. The CFA’s community programs were also linked to Civil Defence-like principles through their efforts to combat the panic associated with ‘inept civilian’ response to disasters by instilling new behaviours and actions into community members’ disaster response, especially those related to pre-fire fuel management activities and fire-fighting when threatened (Dynes 1994, p.142; Takeda & Helms 2006). This is reflected in Hill’s (1998 p.35), CFA (1997) and AFAC’s (2005) concerns of the dangers of ‘[l]ast minute panicky evacuations’, that are considered a ‘recipe for multiple life loss and […] are actively discouraged at every opportunity’ (see also AWW 1980a; 1980b and Good Neighbour 1962a for a similar, pre-Ash Wednesday perspective).

Where the pre-Ash Wednesday strategies differed from those promoted in the 1990s was in the latter’s efforts to further formalise and militarise the community’s response to bushfires by emphasising the importance of pre-planning and acquiring suitable equipment, and recognition that some segments of the community were ‘incapable of implementing an effective survival strategy’ (Krusel & Petris 1992, p.14). Wilson and Ferguson (1984 p.230) likewise emphasised the need for residents to be ‘able-bodied’ if they intended to Stay and Defend, and found that most deaths associated with Staying and Defending were ‘disabled or infirm’. This cohort comprised 7 of the 32 civilian deaths considered in Krusel and Petris (1992 p.6), with deaths resulting from the choice of an ‘ineffective survival strategy’ (13 deaths) or from not recognising the ‘real threat to their safety in time to implement an effective survival strategy’ (12 deaths) more prevalent during Ash Wednesday. As a result, Wilson and Ferguson (1984 p.230) and Krusel and Petris (1992 p.14) shared an appreciation of the need to provide for these ‘incapable’ or ‘vulnerable’ people in Victoria’s public bushfire safety strategy, with both agreeing that such people should evacuate the fireground. Krusel and Petris (1992) and CFA (1997) agreed that identifying and evacuating such ‘incapable’ people should be the responsibility of the community, particularly Community Fireguard groups.

Both Wilson and Ferguson (1984 p.235) and Krusel and Petris (1992 p.14) agreed that that accommodating these ‘incapable’ people into Victoria’s bushfire strategy should not ‘seriously disadvantage[e] those who are capable of looking after themselves’ during fires. Findings from previous bushfires had ostensibly shown that staying and defending was a safe bushfire survival strategy, and more practicable than leaving early given the frequent fires that threaten country Victoria (see CFA 1997, Handmer & Tibbits 2005, or Packham 1995). Victoria’s public bushfire safety strategy therefore shifted from one that ‘[did] not believe in evacuation’, due to the CFA’s confidence that as houses would provide a safe refuge, to one where ‘incapable’ people, initially defined as those physically or mentally incapable of Staying and Defending whether due to age, disability or other factors (e.g., intoxication) but
subsequently a catch-all for those not ‘prepared’ to Stay and Defend, should self-evacuate before the fire threatens their area. Thus, Victoria’s Stay and Defend public bushfire safety strategy matured in the 1990s into advice that fire-threatened individuals should ‘Prepare, Stay or Defend, or Leave Early’, or, colloquially, Stay or Go.

7.7 Evidence for Stay or Go

The evidence for the efficacy of Stay or Go as public policy can be challenged on two fronts. The first critiques the simplistic, militaristic assumptions underpinning the Civil Defence-like model of human behavioural change and decision-making used to justify Stay or Go, and the second the empirical basis of Stay or Go by considering fatality statistics from Australian bushfires.

The CFA’s (2008a p.11) ‘new’ programs reflected an understanding that individuals have ‘both the right and the responsibility to get involved in issues that are important to them, such as the management of fire and the protection of people and property’, but at the same time, sought to ingrain new, CFA-approved behaviours into the public. Most simply, this took the form of trying to train the public out of its propensity to ‘panic’ and evacuate late during bushfires, and to inform of other survival strategies. Thus, while the CFA’s programs were an attempt at community empowerment they also represented a Command-and-Control and Civil Defence-informed attempt to foster social control and change individual behaviour in response to bushfires. The logic underpinning these methods reflected a highly rational, military-like view of human behaviour. After Black Saturday the CFA (CFA Strahan 2011a) critiqued its model of individual behaviour and the means to promote behavioural change, and noted concerns in some core assumption underpinning the community training and education approach. These included uncertainties regarding the CFA’s (CFA Strahan 2011a, p.8) Command-and-Control-like assumptions that ‘awareness of the risk will motivate people to act’, that ‘people can understand, interpret and information [sic] appropriately’, and that ‘warnings will enable people to assess the threat and respond appropriately’. When these ‘lower level outcomes’ were not achieved, it was accepted that the ‘higher level outcomes’, including behavioural change to promote safer bushfire survival strategies, ‘cannot be attained in a way that is likely to have a significant impact on the problem’ (CFA Strahan 2011a, pp.8-9).

These ideas had long been challenged in social science research. Dynes (1983 pp.656-658) had criticised the notion of panic, the feasibility and effectiveness of efforts to ‘ingrain new behaviours’ into communities-at-risk, and found that emphasising plans ignores that ‘[s]ituations change constantly’ during disaster-events, that individuals are not rational

Social science critiques and research, however, were not readily incorporated into the CFA’s public safety strategy because of the quantitative methodology involved in bushfire research, which can be considered part of the legacy of militarism on disaster theory and practice. The CFA used attendance figures and self-reporting of preparing bushfire plans and performing essential pre-fire activities as measures of its success in producing behavioural change (see e.g., CFA AR2006-AR2011). This followed from the ‘Process Outcome’ model utilised to in CFA’s ‘new’ programs which, again, assumed that the community becoming ‘aware of [a] program and motivated to use it’ would lead to ‘enhanced [community] safety response to bushfire risk’ (CFA Strahan 2011a, p.9). In November 2007 the CFA’s research shifted from a quantitative/self-assessment methodology towards a deeper, more open-ended survey of community preparedness, with these studies quickly finding flaws in the CFA’s assumptions (CFA Strahan 2007; CFA AR2008). The key example of this is CFA Strahan’s (2007; 2011a) pre-Black Saturday surveys of community members’ intended responses when threatened by fires’, which found wide variance in the year-on-year responses reported by survey participants, but generally found that the CFA’s advice to Stay or Go was not being followed by the public and suggested that a large proportion were liable to evacuate late. Between 20 and 50 per cent of respondents intended to ‘stay and defend throughout fire’, and between 1 and 2 per cent would ‘leave early on high risk days’ (CFA Strahan 2007; 2011a, p.17). In contrast between 42 and 76 per cent intended to implemented what the CFA considered riskier strategies of either ‘wait and see but leave if threatened’, or ‘leave as soon as aware of fire that could threaten’ (CFA Strahan 2011a, p.17). Thus, the CFA’s ‘new’ programs had failed to push community bushfire responses towards either Staying or Going.

As well as theoretical challenges to the assumptions underpinning Stay or Go there are doubts about the empirical claims that underpin the policy. Essentially, Stay or Go relied on either ‘staying’ or ‘going’ being a safer response to fire than late evacuation. As the first attempts at a longitudinal study of bushfire-related deaths that considered the behaviours and intentions of the deceased were not produced until the late-2000s,74 and therefore more than a decade after Stay or Go became the preferred public safety policy in Victoria, the evidence base for the policy was considered problematic. Before Haynes and colleagues (2008a) and Tibbits and colleagues (2008) studies had focused merely on context-less headcounts of deaths, like Hickman and Tarrant (1986 in Packham 1992), or the aforementioned anecdotal accounts of McArthur (1968), Wilson and Ferguson (1984) or Krusel and Petris (1992). Tibbits and colleagues (2008 pp.60-62, p.70) work addressed the research gap into ‘into the exact

74 The works of Haynes and colleagues (2008a) and Tibbits and colleagues (2008).
circumstances under which people died in bushfires, or the related issue of how houses or lost’, through analysis of a database comprised of ‘information in the print media [from] the [previous] 100 years and various government reports’. Despite the preliminary stage of their analysis at time of publication – i.e., having considered around 40 per cent of fatality data – Tibbits and colleagues (2008 p.62) considered that their analysis ‘convincingly [showed] the dangers of being caught outside during bushfires’, because 18 per cent of deaths occurred ‘inside a defendable property’ against 78 per cent ‘outside or in an undefendable refuge’.

Three months before the 2009 Black Saturday bushfires Haynes and colleagues (2008a pp.1-3) built on Tibbits and colleagues’ (2008) work by using additional ‘reports, books and website sources’ as well as ‘documentary analysis of forensic, witness and police statements within coronial inquest reports’. Haynes and colleagues (2008a p.1) agreed with Tibbits and colleagues (2008) that ‘analysis of the [bushfire fatality data from 1900-2008] clearly shows the dangers of being caught outside during a bushfire’. Tibbits and colleagues (2008 p.62) claimed their analysis went a way towards ‘substantiating the evidence’ for Stay or Go, and Haynes and colleagues (2008a p.1) that the ‘majority of fatalities occurred whilst victims flee the flames during late evacuations’. Haynes and colleagues (2008a p.15) work showed 31.9 per cent (n=176) of deaths occurred because of a late evacuation, while ‘defending property outside’ was the second most common activity at time of death (26.3 per cent, n=145).

Haynes and colleagues (2008a) subsequently periodised their data into deaths occurring 1900-1955 and 1956-2007, with this periodization presenting a challenge to their claim of the dangers of late evacuation. In the period 1900-1955 the danger of late evacuation relative to other actions is high, with 37.3 per cent (n=110) deaths following a late evacuation against 27.8 per cent (n=82) due to ‘defending property outside’ (Haynes et al. 2008a). In the second period (1956-2007) the variance between these two categories declined significantly, such that late evacuation caused 25.7 per cent (n=66) of deaths, and defending property outside 24.5 per cent (n=63). Given the substantial socio-economic, demographic, cultural, technological and political change in fire-prone areas from the mid-20th century onwards the relevance of fatality data from the first period (1900-1955) to contemporary public safety strategies is limited. To a degree this is reflected in Haynes and colleagues’ (2008a p.15) noting that ‘fatalities in rural locations […] halved’ in the period 1955-2007, while ‘those occurring in suburban locations doubled’. Miller and colleagues (1984 p.90) made a similar comment on demographic change, describing a shift in fire-fighting from ‘mainly grass-fire situations in open country’ to ‘semi-rural’ fire-fighting where ‘concentrations of dwellings were set among areas of high fuel-levels’ occurring from the 1960s onwards. Neither, however, engaged with how these changes affected individual survival strategies across the periods 1900-1955 and 1956-2007.
Economic, cultural and technological change obviously affected fire risk and fatalities by changing how fire-prone areas were used by individuals, and the survival strategies available. After the Second World War a broad ‘New Australian’ cultural movement developed, with Pyne (2015 p.322) describing this as the result of a ‘general realignment’ of Australia’s ‘political, economic, and social interests’ including a growth in non-Anglo, non-white immigration, that combined with the growth of a home-grown culture, to establish a new Australian identity. Part of the New Australian identity was a desire to enjoy the recreational and intrinsic value of Australia’s native flora and fauna, and to preserve it against future losses, with this leading to increased tourism and residence in fire-prone areas. This enjoyment was facilitated by a post-1960s surge in vehicle ownership that fundamentally changed the concept of late evacuation as compared with the 1900-1955 period. Instead of an attempt to flee on foot through vegetation, late evacuation now involved an attempt to drive away from fires on roads. Further technological change, including the prevalence of air-conditioning and the use of less-flammable materials in vehicle construction again changed the nature of late evacuation from the 1960s onwards such that it can be said that ‘late evacuation’ between 1900 and 1955 is scarcely comparable to late evacuation from the 1960s onwards (ABS 2015a; CRCS 2010; Lee 2003; McLennan c.2009; Teague 2010a). The potential for an air-conditioned vehicle of fire-resistant construction to provide shelter from a fire-front, and the enhanced safety of cars over evacuations on foot had been established by the Forestry and Timber Bureau in the 1960s and confirmed by CSIRO in the 1970s (Canberra Times 1969b; 1972a; 1973a). Indeed, the Forestry and Timber Bureau’s Director General75 reported that he ‘knew of no instances in the past 10 years of people […] being killed who had stayed in their vehicles’ the day after 17 people died fleeing their vehicles during the 1969 Lara Bushfires (Canberra Times 1969b). These technological developments implied that the period 1955-2007 was more representative of contemporary fire safety risk, and thus focused attention on deaths that occurred in these years as a measure for the evidence for the ‘Stay or Go’ policy. When this period was considered in isolation the empirical evidence for Stay or Go disappeared; Haynes and colleagues’ (2008a) data showed that the variance between the two main causes of death during bushfire (late evacuation and defending property outside) was 3 deaths, or 1.2 per cent of the sample, spread over half a century. Further, Haynes and colleagues (2008a, pp.14-15; 2010, p.190) find that 10.5 per cent (n=27) of their data for this period could not be confidently coded into any of their classifications of activity at time of death, again undermining the conclusions to be drawn from their data.

The narrow margins between the two main causes of death and large ‘unknown’ cohort reported in Haynes and colleagues (2008a) are made more concerning by inconsistencies and inaccuracies in bushfire fatality statistics. Different death-tolls were noted across sources, and attributed to differences in coding frameworks, researcher interpretation, decisions to include/exclude fire-fighters from samples, and errors in transcription. The latter two issues were encountered most frequently, with the exclusion of fire-fighters in Haynes and

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colleagues (2008a; 2010) and associated works (e.g., Blanchi et al. 2012; 2014; Tibbits et al. 2008) leading to variance with the work of (e.g.,) Wilson and Ferguson (1984) regarding Ash Wednesday. Moreover, there are cases where distinguishing fire-fighter and non-fire-fighter deaths is problematic. In the case of the 2005 Lower Eyre Peninsula/Wangary bushfires, for example, Haynes and colleagues (2008a; 2010) note no fire-fighter deaths despite two of the deceased – Trent Alan Murnane and Neil George Richardson – being ‘members of the [South Australian] Country Fire Service (CFS)’ (Schapel 2007, p.i, pp.xi-xiii, p.116). Schapel (2007, p.i, pp.xi-xii, p.116) does not consider the pair as official agents of the CFS during these fires, but they have been identified (and memorialised) as fire-fighters by both CFS (n.d.) and Volunteer Magazine (2005, p.5). In Haynes and colleagues (2008a p.20) these deaths have been considered as civilians, and attributed to ‘late evacuation’; if they had been considered fire-fighters the variance between the two leading causes of death in Haynes and colleagues’ (2008a) table would have declined to a single death.

Differences between sources in death-tolls from individual fire events also made the slender margin reported in Haynes and colleagues (2008a) a concern. These ‘distortions’ are a problem across disaster research, and follow from the different ‘definitions, reporting criteria, and practices for recording dates, places, conditions, contributing factors and consequences’ of disaster events (Glickman et al. 1992, p.29; Quarantelli 2001, p.329). Taking the example of Ash Wednesday, the death-toll reported in the literature considered ranged from 71 (Pyne 2015) to 83 (Handmer & Tibbits 2005). Similar variance was noted regarding the 1969 Lara bushfires, where Haynes and colleagues (2008a) report 17 deaths while Luke and McArthur (1978, p.231, p.310) suggest both 18 and 23 deaths on different pages. Packham (1995), likewise, claimed both 53 and 62 deaths during the 1967 Hobart/Black Tuesday bushfires, perhaps following McArthur’s (1968) distinction between deaths due to ‘natural causes’ and those more directly attributable to the fires. For their part, Haynes and colleagues (2008a p.2) coded ‘64 civilians’ dying on Black Tuesday, despite McArthur (1968) suggesting ‘a few’ of the deaths on Black Tuesday were fire-fighters.

These issues were not adequately scrutinised in Haynes and colleagues’ (2008a; 2010) or associated research (e.g., Blanchi et al. 2012; 2014), and thus Stay or Go continued as Victoria’s public bushfire safety policy into the 2008/2009 bushfire season. The 2009 Black Saturday bushfires undermined both the empirical evidence for Stay or Go, and underlined the deficiencies in the CFA’s Civil Defence-like approach to public bushfire safety. Black Saturday indicated that the ‘majority of [residents] failed to have a well-thought-out, written bushfire plan’ despite this being a foundational concept in the policy (CFA Sweeney 2009, p.29). This draws into question the community’s capacity to ‘make an effective plan’ and understand the ‘need to do so’ (CFA Sweeney 2009, p.29). Post-Black Saturday research found that survivors who had engaged in Community Fireguard reported lower levels of panic and better understanding of safer responses to fires, but such schemes are ‘limited in reach and homogeneous across diverse communities’, and this training and education did not
prevent deaths among Community Fireguard graduates (CFA 2009c; 2010a; CRCS 2010; Fairbrother et al.2010; Sturzenegger & Hayes 2011, p.57). Investigations of the effectiveness of the CFA’s other training and education schemes found that the majority (58 per cent) of victims ‘made no preparations’ despite repeated warnings of the threat, and that a minority (47 per cent) had prepared even rudimentary fire-response plans, another key component in the CFA’s advice (CFA Strahan 2011a; CFA Sweeney 2009; CRCS 2010, p.19; Griffith 2012; Lapsley 2014; Manne 2011; Teague 2010a; UFUA 2009; 2010a). Despite these failings the deeply-ingrained militarism of disaster planning and management shielded the principles underpinning the approach from criticism with the Victorian Fire Services’ Commissioner (FSC 2012a, p.1) seeing the ‘long-term solution’ to the problems identified by Black Saturday as one involving a ‘new behavioural change model that puts individual and community needs at the centre, and maps exactly what individuals may need in order to change their behaviour’. The CFA’s public safety advice was amended from 2014 onwards through a change in message from ‘Stay or Go’ to ‘Leave and Live’ but, given the long tradition of ‘Stay and Defend’ and ‘Stay or Go’ in Victoria it is not clear that a change in message will be sufficient to overcome the ‘substantive consequences’ of over 60 years of advice and policy that emphasised the safety of Stay or Go (ABC 2015a; EMV 2014; 2015a; 2015b; Quarantelli 1998a, p.i).
7.8 Conclusion: The Maturation of Stay or Go

The chapter began with an overview of changes in community fire management roles and responsibilities between c.1850 and 1983. It was shown that changes to community roles and responsibilities typically followed a sequence of socio-economic, demographic, cultural, technological and/or political change such as a gold-rush or encouragement of development in forest/interface areas that built-up vulnerabilities to fire and, eventually, caused major human and/or property losses. These losses drew public and political attention to deficiencies in Victoria’s fire management strategy which, typically, spurred the centralisation and militarisation of Victoria’s fire services, and made more explicit the rights, roles and responsibilities of the community vis-à-vis fire. The approach can be thought of as analogous to Command-and-Control, in that it expected and sought to promote conformity to central plans and behaviours among community members regardless of goal- or value-conflicts (Drabek 2007; Drabek & McEntire 2003; Dynes 1983; 1994; Schneider 1992). When technological advances reduced the usefulness of members of the lay community to firefighting in the early 1960s, and the growth of ex-urban settlements coupled with reductions in Brigade funding from the 1970s onwards, the logical next step in this developmental pathway was to work towards establishing a parallel-emergency service movement in the community, with this considered feasible through Civil Defence-like approaches to community training. The chapter located the development of Stay and Defend and Stay or Go in this context and, in light of the ambiguous evidence for the approach, argued that this developmental pathway view offers a better explanation for the selection of Stay or Go as public safety policy in Victoria.

The progressive centralisation and subsequent militarisation of community roles and responsibilities proved difficult for the CFA and preceding fire services due to inherent tensions between the community’s and the fire services’ values, goals, and core assumptions. This was seen in the clashes between the state, community and other country stakeholders that sought to utilise fire to promote their economic interests, or for socio-cultural or recreational reasons against the state’s fire management goals (The Age 1947c; FCV 1930a-1939a; Pyne 2015; Rodger 1961; Stretton 1939; 1944; 1946). Thus, the reasons for fire incidence were diverse and yet the heavily rational and militaristic view of the fire services was that these actions could be collapsed under a single heading: criminality, ‘apathy and[/or] ignorance’ (Dodgshun in The Argus 1952a; Camperdown Chronicle 1931a; Stretton 1939; 1944; 1946; Robertson in Shepparton Advertiser 1952b; Sydney Morning Herald 1944a; Kemp in The Truth 1944a).

That the problem of fire had socio-economic, cultural, and recreational aspects as well as the more-deliberately criminal uses of fire the problem required a solution cognizant to its diverse causes. Instead, the approach remained more-or-less unchanged: sanctions for illegal
fire-lighting, requirements of permits, education on the need to reduce the risk of carelessly or maliciously-lit fires, and ever-stricter and more specific definitions of the community’s rights, roles and responsibilities vis-à-vis fire. The policies used to address the problem of human-caused fires in Victoria did not recognise, or did not recognise as legitimate that ‘natural disasters only have consequences in a social context’, i.e., events only come to be classed as disasters when their negative impacts outweigh their positives (Moore 2005, pp.68-69; Quarantelli 1992, pp.8-9). This is at the root of Hewitt and Burton’s (1971, p25, p.26) concept of the ‘hazardousness of a place’, where the ‘natural elements which cause damage are, under more normal circumstances, sources of livelihood’, ‘advantage’ or enjoyment that are defined as disasters only when they surpass the ‘limits of tolerance’ produced by their benefits (see also Davis 1998, p.38, p.54). Clausen and colleagues (1978) and later Britton (1986a p.255) agreed that disasters and vulnerability were not “Acts of God” but “‘normal (and often highly revealing) component[s] of the social system’, where historic socio-economic, demographic, cultural and political conditions – as much as the disaster-event itself – were the causes of losses (see also Bankoff 2012; Davis 1998; White & Haas 1975).

Instead of working to adjust and/or divert these wider societal factors towards less-hazardous places by integrating the goals of different stakeholders the Forests Commission and other fire managers sought to change behaviours by imposing ever-greater penalties on transgression, or by shifting responsibilities to the community.76

The state’s efforts to control public behaviour by specifying fire-related rights, roles and responsibilities created a political context that delegitimised community goals and values where they clashed with the state’s fire management goals. Stretton’s (1946 p.12) criticism of graziers burning Victoria ‘with an untroubled conscience’ despite the state’s efforts to convince them of the ecological and fire-related implications of such burning dismisses the underlying socio-economic difficulties of graziers. Stretton (1946) is condemning admittedly illegal fire-lighting by graziers without giving voice to the grazier’s economic needs to maintain incomes amid producers’ noted difficulties in the 1930s and 1940s. Admittedly, the state was offering financial assistance to producers but even this was barely sufficient (in some cases) for graziers to eke out a living from the land or sustain rural communities (Ritchie 1945; Whitford & Boadle 2008; 2009). The Forests Commission was undoubtedly aware of the economically-minded and perhaps economically-necessary nature of burning by graziers, millers and miners yet did not seek to take these goals and values into account when designing solutions (Ballarat Star 1910a; FCV 1921a; Stretton 1939; 1944; 1946). Nor were the state agencies willing to accept other state agencies’ goals and values as valid despite recognising the ‘serious weaknesses caused by fragmented and conflicting/contradictory fire policies (see e.g., FCV 1939a, p.5; Stretton 1939, pp.10-13; 1944).

These inter-agency failures, together with joint community-agency failures to integrate divergent goals, meant that opportunities for mutual benefit were lost. It would have been

76 E.g., the increases in penalties for illegal fire-lighting in the 1907, 1910, 1918 (etc.,) Acts.
possible to (e.g.,) manage the risk to settlements grazier-lit burns were the Lands Department to deny grazing permits, or to offer cheaper rents in areas where land-rejuvenation burns were less-likely to impact settlements. The goals of residents (protection from fire/enjoyment of natural aesthetic), graziers (land-rejuvenation fires/economic gain) and fire managers (minimise risk of fire to settlements/minimise human-caused fires) could be jointly satisfied through negotiation and compromise. However, in line with the militarism and rationality guiding Victoria’s fire-relevant agencies, the selected policy was underpinned by the belief that people could be trained, educated and/or punished in to following orders. That this solution was failing in a relatively homogeneous socio-economic and cultural environment should have worried fire managers, and alerted them to the limitations of such an approach (Pyne 2015). When fire-prone areas became more heterogeneous after World War Two the problem of enforcing central standards became even more ‘complicated’ than hitherto, without producing a change in the state’s Command-and-Control-like approach to the problem (Quarantelli 1992, p.12; Whittaker & Mercer 2004).

When the CFA was constituted in the 1940s it paid lip-service to including community goals into fire-management strategies through the creation of communication/integration apparatus such as the Local Advisory Committees, but these were hamstrung by their lack of executive powers. As there was ‘nothing standardised in fire prevention’, a strategy where local actors could ‘plan and take measures on their own particular problems’ in cooperation with local fire management personnel (e.g., Brigade captains) could have improved efforts to integrate conflicting and divergent goals (Morwell Advertiser 1946d). Instead, the CFA saw Victoria’s fire management remain on a course of militarism, including centralised authority and planning (Farmer & Settler 1948; Galbraith in Gippsland Times 1947a). Thus, the socio-cultural and demographic changes taking place from the mid-20th century onwards produced the same problems of community engagement as experienced during the first-half of the century. The New Australians, like the graziers, settlers, loggers and miners, saw their limited engagement with fire prevention activities deemed disruptive, apathetic, and/or ignorant. Rather than trying to understand local goals and values and offering solutions sensitive to the economic, cultural and social significance and implications of fire and fire management to country Australians – whether bushranger, grazier, tourist or commuter – the Victorian strategy remained focused on reminding all stakeholders of the ‘different ways in which they can diminish the danger from fire’, despite the long-known difficulties in promoting such understanding even in a relatively homogeneous social landscape (The Advertiser 1939a; Canberra Times 1962i; 1976c; FCV 1930a; Myers 1992; Pyne 2015 Schauble 2005; 2008).

The situation in the second half of the 20th century was complicated by the technological, organisational and operational changes affecting fire management after World War Two. The post-war technologization of fire-fighting meant that, from the early-1960s onwards, the public’s traditional enthusiasm to engage in fire-fighting (and persistent failure to conform to state expectations for the pre-fire period) was as much a hindrance as a help to the organised
fire services. The result was that the CFA began ‘turn[ing] away volunteers’ because of the risks to community and fire-fighters safety of having untrained people at a fire-ground, and the volunteer’s limited utility to the overall fire-fighting effort (Murray & White 1995, p.177). There had been previous instances when the community-volunteers, especially ‘city’ volunteers’ efforts were a hindrance to the fire-fighting effort, such as during the 1939 Black Friday bushfires, yet Murray and White (1995) clearly identify the 1960s as a turning point for the community’s role in organised fire-fighting (The Advertiser 1939e; The Argus 1939n). So as not to waste the community’s resources and potential contribution to the counter-fire effort, state advice in the early 1960s began to suggest that community members take responsibility for their own safety during bushfires by remaining with their house, and actively protecting it from fire (e.g., Commonwealth Forestry and Timber Bureau in Good Neighbour 1962a; Luke 1961). To facilitate this the state and Federal governments and fire services offered advice and informal training on how to perform a fire-fighter-like role during bushfires. These early pushes were influenced by the lessons learned from the World War Two-era Civil Defence organisations, and the receptiveness of disaster-relevant organisations to such ideas. Daw (in Camperdown Chronicle 1946b) was particularly impressed by the improvements made to human capital through Civil Defence-based training. Public bushfire safety strategy and Civil Defence-like principles were further entwined by the post-Second World War belief that ‘good’ disaster management involving training and educating the public to avoid a ‘blind panic’ response to a threat, whether the threat was from a nuclear weapon or a bushfire, under the doctrine of dual use (Dynes 1983; 1994; Commonwealth Forestry and Timber Bureau in Good Neighbour 1962a; Quarantelli 1987; 1988a; Takeda & Helms 2006). The core assumption here was that the likelihood of panic could be reduced by training the public out of its ‘inept civilian’ form into a more military-like form by instilling new behaviours into the assumed gap in normality created by the disaster (Dynes 1983; 1994, p.142). In the case of bushfire this meant training and encouraging the public to stay and defend during bushfires to reduce the ‘natural tendency’ to evacuate late (AWW 1980b; Canberra Times 1973a; 1980d; 1982a; Good Neighbour 1962a; Takeda & Helms 2006, p.2005).

As the fire services’ advice to Stay and Defend grew in complexity in the 1970s and early 1980s the methodology increasingly resembled Fritz and Mathewson’s (1957 p.90) paramilitary-like, Civil Defence-inspired recommendation for the ‘organisation, training, integration and coordination of both the general populace and the formal passive defence forces’ before the ‘stress and chaos of the immediate post-disaster period’. Against the community’s earlier evacuate/shelter role during fires, the post-1960s socio-cultural, technological, demographic, cultural and political context led to the community’s role being altered to one of self-protection through Staying and Defending their property during bushfires. These methods were generally informal and ad-hoc in the 1970s and 1980s, relying principally on mass-media communiques, with the difficulties in promoting behavioural change (qua a change in community roles and responsibilities) underlined both by emerging currents in disaster research and theory and, perhaps more importantly, by the losses accrued
on Ash Wednesday. In response to the post-Ash Wednesday finding that some sections of the public are ‘incapable’ of Staying to Defend during bushfires, the Stay and Defend strategy evolved after Ash Wednesday into Stay or Go, which was supported by fully-formalised Civil Defence-like community training and education programs implemented as official policy in the resulting policy window.

Both Stay and Defend and Stay or Go were adopted as public safety strategies – and the latter as public safety policy – in Victoria despite a limited evidence base for their effectiveness relative to other strategies, including late evacuation. No longitudinal study of the survival strategies adopted by those killed during bushfires have been found prior to Stay and Defend being recommended by Luke (1961) and the Commonwealth Forestry and Timber Bureau (in Good Neighbour 1962a), or Stay or Go’s selection as official policy in the 1990s. Anecdotal evidence of the effectiveness of Stay and Defend emerged in the later-1960s through studies of individual fire events or through limited comparisons of two fire events, and this methodology continued into the 1980s (e.g., McArthur & Cheney 1967; McArthur 1968; Wilson & Ferguson 1984). When comprehensive reviews of bushfire-related fatalities in Australia were completed in the months leading to Black Saturday the evidence was said to support Stay or Go across the period 1900-2007/08, but has been shown in this thesis to be ambiguous for the period 1956-2007/08. That Stay and Defend and Stay or Go came to be accepted as suitable public bushfire safety strategies despite such ambiguous evidence is considered here a ‘substantive consequence’ of the influence of military organisations and personnel on disaster-relevant organisations, which ingrained militarism and receptiveness to Civil Defence-like principles into the overall counter-disaster framework. These can be expressed in terms of Kingdon’s (2013) Multiple Streams framework of policymaking, where militarism’s dominance established asset-protection as the relevant policy-frame, and thus created an evolutionary advantage for policy ideas such as Civil Defence and Command-and-Control in the policy primeval soup. These streams interacted with the prevailing constraints in the politics stream, such as the push to inhabit and utilise fire-prone locations, the political power of military and ex-military personnel due to their senior positions in disaster-relevant organisations, and the financial and technological constraints on a policy of complete state-supplied protection from fire. These factors, as much as evidence of the efficacy of Stay and Defend or Stay or Go, are considered the foundation of Victoria’s public bushfire safety strategy.
Chapter 8: Conclusion

The development of Stay or Go can be explained in terms of Kingdon’s (2013) Multiple Streams framework of policymaking, and that this appears to offer a better explanation for Stay or Go’s prominence than evidence of its effectiveness. The thesis began with a critique of the evidence base for Stay or Go as public safety advice and policy by pointing to the lack of longitudinal support preceding Stay or Go becoming public safety policy in the 1990s, and questioning the strength of some core tenets of the approach. The thesis challenged the evidence used to support the key claim that late evacuation is a more dangerous response to fire than staying to defend during a bushfire in practice. Axiomatically structures offer more protection from radiant heat than vehicles, but the safety of the former depends on proper preparations and responses by those staying to defend, with the evidence used to argue the dangers of late evacuation equally showing that there were issues with individuals translating the tenets of staying to defend into practice. This can be seen in the low level of variance between bushfire-related fatalities resulting from a decision to evacuate late, 66 deaths between 1956 and 2007, and those from ‘defending property outside’, 63 deaths between 1956 and 2007, reported in Haynes and colleagues (2008a, pp.14-15).

Given these empirical issues the thesis explored the question of why Stay and Defend emerged as advice in the 1960s, and matured into the Stay or Go policy in the 1990s by considering it in terms of Kingdon’s (2013) Multiple Streams framework of public policymaking. Kingdon’s (2013) framework helped organise and structure the thesis’ argument by defining three key variables to focus on to explain the selection of Stay or Go as public safety advice (and policy) in Victoria. These were the problem, policy, and politics streams, which refer to the problems (or definitions, understanding or frames of problems) that vie for attention on the governmental agenda; the policy ideas, solutions and alternatives developed by stakeholders that are held ready for a suitable problem/problem-frame to emerge (and then vie for attention on the governmental agenda); and the political factors (e.g., public opinion; technological and/or financial feasibility; and ideology of the dominant faction in government) that diverts or draws attention to problems, problem-frames, or policies and thereby raises or lowers their prominence on the governmental agenda. In Kingdon’s (2013) framework evidence is one component in policymaking, and it does not have an objective bearing on outcomes (PCA 2010a; 2010b). Instead policy outcomes depend on the assigned problem frame/definition and its agreed causes; the ideas, solutions and alternatives that have been developed independently of the problem; and policy advocates’ skill in coupling solutions to problems and thereafter convincing policymakers of the feasibility of their preferred coupling given prevailing political constraints. Successful coupling draws a problem, problem frame or policy solution to prominence in the governmental or decision-making agenda and, where this occurs in an open policy window, can produce the most substantial policy change. The thesis considered the 1983 Ash Wednesday bushfires to have opened a policy window for the selection of Stay or Go as
Victoria’s preferred public safety strategy, and thus sought to understand how the problem/problem-frame, policy solutions, ideas and alternatives, and constraints in the politics stream developed.

To understand the currents in Kingdon’s (2013) problem, policy and policy streams, and how these were coupled in a manner conducive to the selection of Stay or Go, the thesis was structured after Bankoff’s (2012 pp.32-35) concept of the ‘historical construction of risk’. Bankoff (2012 pp.32-35) considers disasters as both an ‘event and a process’, where disaster events occupy ‘discrete periods’ that have ‘antecedents’ and produce ‘consequences’ for the affected society. Understanding these antecedents and consequences help explain what makes ‘people, households, communities and societies vulnerable or resilient in the present’, with these antecedents considered analogous to the developmental pathways used to explain ‘epochal social transformations’ in historical sociology (Lachmann 2013, p.2; Tilly 1980, Mahoney & Rueschemeyer 2009b). Separate developmental pathways were created for Victoria’s fire services and community so as to ‘capture the unfolding of social action in a manner sensitive to the order in which events occur’, and identifying key points (or conjunctural events) at which previously separate developmental pathways come into contact with and influence the direction of others (Aminzade 1992, pp.457-458; Goldstone 1998a; 1998b; Mahoney 2000; Mahoney & Rueschemeyer 2009b). The importance of the temporal characteristics of events, such as their trajectories, pace and duration, was established by showing that ‘fast-paced’ events had a major effect on subsequent policy developments, and that the order of events was important in directing or diverting developmental pathways (Aminzade 1992; Tilly 1980; 1989). This was most apparent in the location of the Second World War in the chain of events between the 1920s and 1940s, which saw Victoria’s fire management strategy adopt militaristic principles as their core philosophy.

The content of these developmental pathways resulted from a substantial data collection and document analysis phase of the thesis, where efforts were made to source as many fire-related primary source materials as possible, particularly materials produced by newspapers or Federal, state or local government. These provided the historical context necessary to produce stories sensitive to the unfolding of social action in its context. These primary materials were supplemented with secondary sources related to bushfires, Victoria’s socio-economic, demographic, cultural and political development, or disaster research more generally. From this collection and analysis, the thesis could develop a series of periodised, historical accounts of the development of bushfire management in Victoria with these presented as stories per the historical narrative approach common in historical sociology (Mahoney 2000, p.530; Somers 1996, pp.54-56). By presenting developments affecting Victoria’s fire services and community the thesis could express its findings in a ‘clear chronological order’, and emphasise that ‘each event in the chain [or sequence, or pathway] was “dependent” on prior steps’ (Mahoney 2000, p.530; Somers 1996, pp.54-56). Thus, rather than seeing Stay or Go as resulting from research and evidence produced after Ash Wednesday alone the thesis
sought to reflect on the way that previous research and evidence had helped shape and construct the ‘story’ of Stay or Go as research findings were combined and recombined in Kingdon’s (2013) policy primeval soup and brought to prominence as policy alternatives for socially-constructed definitions/frames of problems.

The first developmental pathway considered was that of Victoria’s fire services. It was shown that informal, autonomous volunteer fire-fighting groups emerged to meet the threat to people and property caused by residential and commercial developmental in fire-prone areas following the discovery of gold in the 1850s. In response to the frequency of severe fires and the changing asset-profile of fire-prone areas— that is as more people and property became situated in fire-prone areas – these groups began to formalise into local fire brigades, beginning in the mid-1850s. These brigades followed a military model of organising and operating because of a belief in the suitability of militaristic principles to emergency service functions. Thus, the dominant ‘problem’ frame came to be established as one of asset-protection, as factors in the politics stream rendered it inconceivable that Victorians should eschew the economic benefits of gold-mining, farming and logging in fire-prone areas, and the policy primeval soup was seeded with militarism as the means to protect people and property in such areas. The autonomous brigades struggled to fulfil their protective role due to the ever-increasing presence of people and property in fire-prone areas through the latter half of the 19th century, giving rise to more technologization, formalisation, centralisation, and militarisation for Victoria’s fire services. These principles were laid down in the Fire Brigades’ Act 1890 (Vic), which set centrally-defined standards for training and drill, as well as a hierarchical organisational structure for Brigades that would be progressively refined. These initial decisions were subsequently treated as axioms, and allowed Victoria’s Brigades to benefit from state guidance and funding but, at the same time, would have ‘substantive consequences’ for the Brigades’ and community’s developmental pathways by creating ‘forces’ that would ‘impinge future choice opportunities’ and thus ‘sustain movement along the chosen path’ (Aminzade 1992, p.463). Other problem frames and policy solutions were always possible, such as a vulnerability-reduction frame that would lead to restrictions on development in fire-prone areas to reduce the risk of losses and, perhaps, see ecologists, geographers, and/or urban planners considered the experts in disaster management. However, the early selection of an asset-protection frame and the pressures for residential and economic development in fire-prone areas established defence against fires made a diversion to other pathways difficult, and thus progressively ingrained the idea that militarism and asset-protection were the most suitable principles for Victorian fire management.

The policy decision to centralise and formalise Victoria’s Brigades followed from the recognised deficiencies of autonomous, community-led brigades, persistent pressure from the politics stream to develop and protect fire prone areas, and a problem-frame that emphasised asset-protection. Centralising, formalising and militarising Victoria’s Brigades became a process because of the demands of the public for more economic exploitation of fire-prone areas and an increasing expectation of state-support for Brigades. Change in the state government’s fire management policymaking typically followed ‘conjunctural events’ that
linked the primary developmental pathways of the fire services and community to events in antecedent socio-economic, demographic, cultural, technological and/or political pathways such as major fire events, a fast-paced sequence of fire-related losses, demographic change, the election of a new government, or the (re-)combination of ideas from the policy primeval soup. Despite the varying causes of policy change the result was inevitably greater technologization, centralisation, formalisation and/or militarisation of community and fire services roles and responsibilities. This caused tension between the Brigades and the state over the former’s lost autonomy, and created distinctions in the fire management roles and responsibilities of the fire services and community that caused conflicts between stakeholders. As fire-fighting became more specialised community members were encouraged to support their volunteer Brigades by taking on new roles and responsibilities, initially focused on fire prevention and mitigation. Restrictions on the rights of community members to use fire as well as requirements for fire mitigation through fuel management were mandated in the various Acts of Parliament that served to centralise the Brigades, and in the various Forests Acts of the early 20th century. The result was goal-冲突 between the state and fire services on the one hand and the community on the other, as the former pairing deemed segments of the community’s failure to fulfil its assigned fire prevention and mitigation role as a consequence of apathy and ignorance. This reflected a military-like expectation of being able to Command-and-Control community actions and led to a failure to appreciate or integrate the community’s socio-economic and/or cultural values and goals regarding fire-usage. The result of framing the problem of community failures to properly fulfil its fire management roles and responsibilities as apathy or ignorance would give rise to policy solutions that sought to educate and/or force conformity with the state’s goals, and preserve the tensions between stakeholders that were hindering holistic fire management in Victoria. The state implemented various community education schemes from the 1930s onwards to try and engage the community in its fire management roles, including the annual Bush-Fire Prevention Weeks, but these were not efforts to integrate community values into central plans. Instead, they were intended to educate the community on the risks of its apathy and ignorance vis-à-vis fire, and to recognise the value of the state’s goals of fire prevention and mitigation.

World War Two caused shifts in both primary pathways that proved conducive to the selection of Stay or Go as Victoria’s public safety policy in the 1990s. The War had demonstrated how more effective training and education schemes could vastly increase the human capital available to military, para-military and Civil Defence organisations, but also diverted Victoria’s fire services development from the Brigade-run central authority envisioned in Stretton (1939) into a state-managed and para-military fire service in 1944 (CFA). This was a consequence both of the finding that strict, centrally-imposed military drill, discipline and structure could vastly increase Brigade functioning over the semi-military model utilised in the pre-War period, and thus the CFA was constituted along the lines of the wartime “G” Committee. This predictably created tensions among Bush Brigades over their lost autonomy. The extent of the state’s power over Brigades, together with a more amenable state government under John Cain Sr., saw these tensions more-or-less dissipate before the
end of the decade. Thereafter the CFA Brigades enjoyed financial and technological benefits that were unthinkable to pre-CFA Brigades. The pace of organisational and technological advancements from the 1950s onwards – both a result of borrowings from the military – saw fire-fighting equipment evolve from knapsacks and beaters to aircraft and tankers as Brigade funding surged by orders of magnitude. By the early 1960s the utility of community members to official fire-fighting groups had been all-but depleted, as technological and organisational change meant that untrained community-volunteers were more a hindrance than a help to fire-fighting activities (e.g., Murray & White 1995). As in America both were a result of the growing influence of the military over fire management, in particular the growth in financial support of bushfire research because it was considered analogous to enemy attack, and a potential weapon for use in wartime (e.g., Canberra Times 1968b; 1969d). This served to perpetuate the dominance of militarism and military personnel as guides for disaster-relevant organisations in Australia, with this most apparent in the post-Cyclone Tracy creation of the Natural Disasters Organisation as the new peak-body for both Civil Defence and disaster-relevant organisations. As a result, the state began to recognise the need for a new role and responsibilities in fire management for the community, with this made more urgent by developments in the community’s developmental pathway that threatened to overwhelm the capacity of Victoria’s fire services to protect the community from bushfires. Coupled with the growing militarism in disaster planning and management, and the modernisation of the Civil Defence apparatus, the idea of training the public to safely respond to bushfires came to higher prominence in policy discourse.

The War also accelerated socio-economic decline in fire-prone areas and thus focused government attention on the means to alleviate such decline. The resulting investment in relocating industry and housing development to country areas together with improvements to infrastructure and amenities merged with changing cultural tastes that favoured country and ex-urban living in the 1960s to reverse the decades-long trend of rural-to-urban migration in Victoria. These various stimuli, however, had the effect of changing fire-prone areas socio-economic, demographic/spatial and cultural characteristics and thereby vastly increased Victoria’s vulnerability to fire. The decline in traditional country sources of income combined with a new cultural and recreational appreciation of the natural aesthetic – particularly an overgrown natural aesthetic – worked against the state’s efforts to motivate community fulfilment of its roles and responsibilities in managing fuels. However, the state’s already limited ability to Command-and-Control public attitudes to fire management was undermined by developments in the politics stream. The strength of the New Australian cultural movement’s conservationist feeling was such that it successfully pressed the state government to restrict the use of efficient and effective fuel-reduction techniques, such as the recently-innovated use of aircraft to light fuel-reduction burns. Further, the spatial changes caused by closer settlement of Victoria’s fire-prone areas and the associated break-ups of the landscape through infrastructure (e.g., roads, railways, power-lines, etc.) meant that the efficiency of fuel-reduction burns decreased and thus the gains to be made from such an unpopular aerial fuel management policy lessened. At the same time, though, and in spite of the good work of the CFA in protecting Victoria’s fire-prone areas between 1944 and the early 1980s there were calls to avoid the complacent ‘comfortable belief’ that Victoria’s
technological advances in fire management had ‘brought the [bushfire] menace under control’, as it was ‘impossible to ensure the tinder-dry forests against the spark of a match’, particularly in the context of large and sustained population transfers to fire-prone areas (The Age 1962a). As a result, the state began to consider the ways in which it could create a more fire-minded attitude among communities to relieve the burden on the state’s strained emergency services.

The problem-frames, policy alternatives, and politics facing Victoria’s fire managers in the 1960s led to a combination of previously-existing ideas that would closely resemble the core tenets of Stay or Go. These included the 19th century understanding that houses could be built to withstand fire (Bendigo Advertiser 1859a); Barrow’s (1945) finding that houses are generally ignited by embers becoming lodged about the structure rather than through direct flame-contact, and thus burn slowly as initially small fires grow to consume the structure; the inter-war findings of the benefits of Civil Defence and military-like approaches to fire management (e.g., The Age 1944c); and Stretton’s (1939) and Luke’s (1961) concerns that late evacuation was a risky response to fire. In the early 1960s Luke (1961) and the Commonwealth Forestry and Timber Bureau (in Good Neighbour 1962a) advised that staying to defend was appropriate as a survival strategy if the public followed the advice and principles communicated by the state.

The resulting combination of ideas was not yet selected as public safety policy, but its prevalence in advice offered by state fire managers increased in the 1970s and early 1980s until Ash Wednesday opened the necessary policy window for its selection. In line with Kingdon’s (2013) argument that solutions precede problems in the policy primeval soup, the ideas that would form Stay and Defend and then Stay or Go had long existed in one form or another in Victoria, but were dormant until a suitable problem-frame and policy window appeared to allow their coupling as public policy. That the CFA began to refuse volunteer assistance during fires at the same time as the Commonwealth Forestry and Timber Bureau (in Good Neighbour 1962a) and Luke (1961) were advocating community members stay and defend their properties is considered more than a coincidence. Rather, it is thought to be a recognition of the limited efficacy of the community to organised fire-fighting caused by technological and organisational advances, and the need to not waste a valuable resource that could, based on the principles of Civil Defence, be trained to relieve the substantial burden of community protection from the formal emergency services.

The beginning of advice to stay and defend in the 1960s was predicated both on the combination of valid ideas from the policy primeval soup and, perhaps, due to the state’s growing unease at being unable to develop a ‘systematic way of dealing with the hazards and insecurities induced and introduced by modernisation’ (Beck 1992, p.21). The result, ultimately, was a political climate in which the public was given responsibility for managing
its own risks, as a way for ‘institutions [to] cynically whitewash their own failures’ by allowing vulnerabilities to build up through – in the case of bushfire management – uncontrolled development in hazardous places (Beck 2009, p.54). Beck (1992; 2009) is, perhaps, overly critical and failing to acknowledge properly the incredible pressures in the ‘politics’ stream that gradually encouraged such vulnerabilities to develop. In line with Hewitt and Burton (1971), Davis (1998) and Bankoff (2012) it can be said to be simplistic to attribute failures to institutions without appreciating what has caused vulnerability, and how the choices to develop and exploit hazardous places can be justifiable given the advantages present at the time the choice is made. In the case of Victoria’s bushfire management problem, the vulnerability of people and property to fire reflected socio-economic and demographic growth and decline in such areas. Resisting developmental pressures to exploit gold, timber, and/or agricultural assets, or ignoring the decline of country Victoria, was politically untenable. The result was, though, that by the 1980s the state’s capacity to protect the people and property present in fire-prone areas had been all-but exhausted. In line with the dominance of military modes of thinking in disaster planning, Civil Defence offered a seemingly effective policy solution to the problem of public safety in the context of unrestrained development in fire-prone areas, and political pressure for yet-more development.

The 1983 Ash Wednesday bushfires – the deadliest bushfires in Australia in the 20th century – opened a policy window in Victoria’s public bushfire safety strategy. This can be inferred from the consideration of alternative problem-frames and policy solutions noted in the state, Federal, and research documents produced after the fires. These documents both acknowledged the plural views on the definition of Victoria’s bushfire problem and appropriate solutions – from one requiring yet-more asset protection and/or community self-reliance, to one emphasising vulnerability reduction and zoning controls – and indicated the kinds of constraints prevalent in the politics stream. It can be said that a substantial proportion of community members affected by Ash Wednesday were opposed to stricter zoning controls or retroactive building standards on the grounds of cost and a lack of faith that these solutions would prove effective against bushfire. The state was also unable to build on the Liberal’s 1970s policy of buying-back property in the highest-risk areas of the Dandenong Ranges due to the financial and political cost of such an endeavour. It was not technologically possible to improve the quality of short-term communications during bushfires, nor was it possible for the fire services to provide protection to the community during fires of such magnitude. Fuel management policies remained stymied by tensions between community conservation and fire management goals. Given these constraints, coupled with the para-militarised development of Victoria’s fire services and the ideas floating around in the policy primeval soup it is not surprising that Stay or Go came to prominence as Victoria’s preferred public safety policy in the 1990s.
The spur for the 1990s shift to Stay or Go was Krusel and Petris’ (1992) work that identified poor decision-making and/or a lack of understanding as two major causes of death on Ash Wednesday, coupled with the works of Jones (1987), Silberbauer (1990) and Whelan (1987) on the need for greater community responsibility in fire management. In line with the militaristic principles guiding Victoria’s emergency services, and the political power of military and ex-military personnel in such organisations, it was generally agreed that the training and education of the public would reduce future incidence of fire-related losses. The effectiveness of such training and education had been demonstrated during World War Two, where civilian volunteers were transformed into effective para-military personnel (Daw in Camperdown Chronicle 1945b). Were the state to build on these lessons it could produce a policy that would satisfy the public’s dual goals of living in hazardous places and demanding safety from such hazards. Further, the policy molecules – the constituent parts of the Stay or Go approach – appeared to be well-supported in the evidence. Wilson and Ferguson (1984) found few deaths on Ash Wednesday occurred inside a property, Ramsay and colleagues (1985; 1987) had provided a wide-ranging scientific investigation of structural survival and loss, and Krusel and Petris (1992) had shown the need for better public training and education as a loss-reduction strategy (see also Jones 1987; Silberbauer 1990; Whelan 1987). These ideas, along with their antecedents in the policy primeval soup, led to the development of the Community Fireguard program in 1993 and extended to cater to different community needs and expectations in the later-1990s and 2000s. The weaknesses in the policy’s underlying logic – the lack of evidence that firmly established the practicality of the ‘houses protect people and people protect houses’ logic; the assumption of rationality in its audience; and that behaviour could be changed to fit state expectations through short-run community training and education programs without examination of understanding – were not recognised by a research and evaluation system that emphasised quantitative over qualitative measures of preparedness. The result was an ever-growing vulnerability to the bushfire hazard that, ultimately, contributed to the deaths of 173 people during the 2009 Black Saturday bushfires.

The 2009 Victorian Bushfires Royal Commission highlighted many of the tensions in the functioning and assumptions underpinning the Stay or Go policy. The strategy was found to be ill-suited to an ‘urban context’, and based on a flawed assumption that ‘individuals have a fire plan and knew what to do when warned of a bushfire threat’ (Teague 2009a, p.198; 2010a, p.5). Black Saturday exposed both the vulnerability of more urban communities to bushfires, and that ‘many people did not have a well-thought out plan, and were [thus] left to make their own decisions’ during the fires ‘without the benefit of assistance from the authorities’ (Teague 2010a, p.5). The CFA had sought to make the public ‘competent’ to make such assessments and decisions through its community programs, but these struggled to convey the nuance in the ‘multi-dimensional’ and ‘complex’ relationship between ‘house type, property location, surrounding vegetation […] personal readiness’ and fire conditions that affected personal and structural survival (Rhodes in Teague 2009a, p.195; Teague 2009a, p.189). The Commission found that complexity and risk involved in Staying to Defend during a bushfire, including the risk of injury or death and that not all houses were defendable
under all circumstances, had been underplayed in the Stay or Go policy, and implored that these risks be made prominent in future bushfire advice (AFAC 2005; Teague 2009a, p.190; 2010a, p.5).

The emphasis on following a pre-defined plan and associated assumption of rationality, ‘rigidity and uniformity’ in both community and fire-services understanding and behaviours was, likewise, identified as an issue in Stay or Go (Teague 2009a, p.196, p.202; 2009d; 2010a). Haynes’ testimony to the 2009 Commission (Teague 2009a, p.192) noted that ‘most fatalities’ in bushfire involved ‘victims who were aware of the fire and were carrying out a plan’, with the ‘high rates of death in this group’ linked to their having planned to be exposed to the ‘physical threat’ of the fires. These risks followed from the normalisation of the fire threat created by training and education programs that implied the relative simplicity of Staying to Defend. Teague (2009a p.202) criticised this as being based on ‘assumptions (contrary to the evidence) that people will [or can] consistently behave as the models predict, and can tend to understand the difficulties of implementing’ a Stay and Defend survival strategy, or of the Stay or Go policy more generally.

Despite these ‘weaknesses in the way [Stay or Go] was applied’, Teague (2010a, p.5) found that the ‘central tenets of the Stay or Go policy remain sound’. This hints at a flaw in the Commission’s approach to the problem of analysing Victoria’s public bushfire strategy: that Teague (2009a, p.190; 2010a) considered the evidence base for Stay or Go ‘credible’, and ‘strongly grounded in extensive research concerning the effects of bushfires on houses and people’. Teague (2010a; 2010b, pp.5-6) appreciated that ‘some’ of the ‘assumptions of [this] research were called into question by the events of 7 February [2009]’, but Teague recommended amendment, rather than repeal, for the Stay or Go policy. This followed from a failure to fully appreciate the effects of adopting militarism as a paradigm bushfire-related theory and practice. Teague (2010a p.5) focused on the way Stay or Go was applied, rather than rigorously questioning the assumptions underpinning the strategy. Had the latter course been followed it might have been found that the tensions in the way that Stay or Go was applied were a result of military-influenced assumptions underpinning the approach, and were thus foundational and inherent flaws in the policy that could not readily be addressed through amendments.

Against this critique of the CFA’s ‘long-term’ communications, it is important to highlight the CFA’s innovative and adaptive approach to ‘short-term’ communications between Ash Wednesday and Black Saturday. The CFA quickly embraced new technologies, including social media platforms and mobile phones, as tools to disseminate fire warning information. Indeed, CFA had an online presence from (at least) December 1998, and was an early adopter of the Internet as a community warning device. Wareing and Flinn (2003 p.217) praised the CFA for the ‘range and nature of community links’ established during the 2003 Victorian Alpine fires, including ‘use of the Internet’ for information and warnings that was
‘unprecedented in Australia’ at the time. The mixture of traditional face-to-face meetings, the television and radio warnings, and the new digital media methods was deemed an ‘exceedingly effective’ response to the 2003 fires (Leonard 2003; Wareing & Flinn 2003, p.217). The CFA continued to build on these communication tools, and in particular developed its online presence such that by the 2005/2006 bushfire season the CFA’s website received 225,000 ‘hits’ during a five-day peak of fire activity when the CFA’s resources were stretched, and was ‘at times’ able to provide ‘up-to-the minute information on fire activity and community threat predictions’ (CFA AR2006, p.14). The importance of CFA’s web-based communication tools was again demonstrated during the 2006/2007 bushfire season as the CFA received a ‘staggering’ number of visits to its website (CFA AR2007, p.15). In recognition of this the CFA was hailed as a ‘leader’ in the ‘new media industry’ (CFA AR2009, p.49). After Black Saturday the CFA continued to innovate in the use of ‘new media’, including making use of online webchats for bushfire safety meetings that provided ‘critical bushfire preparation advice’ for residents without their having to ‘leave the comfort of their homes’ (CFA AR2011, p.11). Some meetings were poorly attended – archives of the webchats indicated a 2012 webchat had no participants – but the CFA’s willingness to offer such opportunities is testament to the organisation’s innovativeness and adaptive approach to public engagement.

The CFA’s use of new technology during Black Saturday, however, produced mixed results. Newspaper reports indicated the CFA’s successful use of Australia’s major mobile phone service providers to deliver text messages to ‘more than 3 million phones’, though the system was limited by it being able to send ‘only’ 600,000 per hour and could not provide ‘an instantaneous warning’ (Dobbin 2009; Teague 2009e). Further, Teague (2009e p.153) heard that due to ‘time constraints it was not possible to geo-code Victorian mobiles’, meaning that ‘some Tasmanian customers received the SMS [warning] message’. Here Teague (2009e) is referring to a second fire event that occurred on 2 March 2009, but was satisfied that this event offered good evidence of the ‘success’ of the CFA’s use of text messages during the 2009 fires. Respondents indicated a ‘high rate of recall by recipients’ of the warning message, though their actions in response to the message were not specified (Teague 2009e p.153).

A post-Black Saturday review of Community Fireguard members found ‘some participants’ were ‘angered’ that the CFA’s website was ‘not up to date and information lines were overloaded’ (CFA 2010a, p.20). Handmer and Rhodes (in Teague 2009e, p.138) criticised the CFA’s presentation of warning messages on its website during Black Saturday because people had to ‘read the whole statement carefully to find what they might want’; that the ‘alert message’ was ‘relevant for […] only 15 minutes’; and risked causing ‘confusion’ due to ‘contradictory’ information.

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77 The link for this chat is dead. Before it was removed from CFA’s website it was copied and pasted by the author into Microsoft Word, and parts of this are presented as Appendix 1.
These criticisms highlighted the ongoing tension between ‘long-term’ and ‘short-term’ communications identified by Lazarus and Elley (1984) after Ash Wednesday, in particular the risk of the public coming to rely on warnings and information during periods of peak danger. Teague (2009p.130, p.136) was satisfied that ‘the CFA and DSE websites were a key source of information for the community’ during Black Saturday but, again, found that ‘many interviewees […] seeking information from the CFA and DSE websites […] were critical of those sites’, and that informal sources as well as ‘direct verbal warnings from police officers and CFA and SES volunteers were very important in enabling residents to evacuate safely’. Where these information sources were unavailable or deficient, lives were lost. Witnesses to Teague’s (2009p.141) Commission claimed that the community ‘needed more [communication]. [Their] dead neighbours, deceased neighbours, friends […] needed more information’, and criticised a lack of plain language in warnings. Thus it can be said that the CFA made a substantial effort to use a mixture of new and traditional methods to provide information to the community, but succumbed to ‘significant shortcoming[s]’ due to the lack of specific information on the likely severity of the fires; the ‘window of time which the fire was predicted to reach certain towns or communities’; a lack of precision; warnings being ‘lengthy and confusing, sometimes even contradictory’; and the use of ‘vague and euphemistic’ language. The CFA continued to build on its short-term communication capacities after Black Saturday, and its adoption of mobile phone apps, Twitter and Facebook as communication tools indicates the CFA’s efforts to overcome these persistent issues in short-term communications.

The thesis has shown that there are issues with the evidence base for Stay or Go that result from the low variance in causes of civilian bushfire deaths in the period 1956-2007/08, and favours a closer reading of Teague’s (2009a p.190) concern in the Commission’s Interim Report that it is ‘important to understand what [previous bushfire research findings] establish and what they do not’. Teague’s (2009a p.190) finding that the evidence for Stay or Go reflected two distinct strands of research – one focused on ‘how buildings ignite and are destroyed, and the significance of occupants in building survivability’, the other on the ‘circumstances in which civilians have been killed’ – is under-appreciated in the Commission’s Interim Report, and absent from the Final Report. These two findings were logically linked – if people protect houses it follows that houses protect people – and utilised to support Stay and Defend and Stay or Go, but had not been proven practicable during bushfires. Instead of going deeper into this argument Teague (2010a p.5) considered that while leaving early was the ‘safest option’, ‘staying to defend a well-prepared, defendable home is also a sound choice in less-severe fires’. This might be true, but it is not the same as establishing the safety of Stay or Go or other Civil Defence-like approaches to public safety during disasters.
The substantive analysis ends in 2009 because it is then that the Stay or Go policy began to give way to the new ‘Leave and Live’ policy (EMV 2014; 2015a; 2015b). The 2009 fires, though, can be thought of as constituting another opening of a policy window that, like Ash Wednesday, mobilised plural views on the appropriate frame and policy solutions for Victoria’s bushfire hazard. It would be worthwhile to investigate the reasons for the post-Black Saturday shift in community safety message to “Leave and Live”, and to try to ascertain why this change occurred almost five years after the fires. It would also be worthwhile to extend the analysis by considering how deeply this change in message has affected the public’s and fire services’ attitude to bushfire safety strategies. In their survey of American communities at risk of bushfire McCaffrey and colleagues (2015 p.176) found that American communities’ interest in a Stay or Go-like approach was undiminished by the losses in Victoria on Black Saturday. Similarly, in Victoria ABC (2015a) found that some Victorian communities were rejecting the ‘Leave and Live’ message in favour of staying to defend their properties. It would be worthwhile, then, to investigate the extent to which the state has convinced the public on the safety of ‘Leave and Live’ given the long cultural tradition and strong socio-economic pull of an attempt to stay and defend a property, and decades of advice that this was a relatively simple task to achieve. It would also be worthwhile to consider how far the losses of Black Saturday have affected the bushfire research climate in Victoria. Webster’s (2012 p.i, pp.xi-xii) second revision of her ‘pioneering’ Complete Australian Bushfire Book reflected Webster’s history as a ‘foundation member of the first municipal organisation for civil defence for bushfire’, in that it argued that bushfire-related deaths were a result of ‘apathy and ignorance’. These claims mirror Stretton’s (1939 p.5) earlier criticisms of public attitudes to fire safety, and persist in a militaristic, heavily rational understanding of individual behaviour without appreciating the goals, values, and attitudes of the community that led to their ‘apathy and ignorance’. For Webster (2012 p.xi-xii) ‘almost every loss’ due to bushfire in Australia was a result of this apathy, not of fire weather conditions or of state development policies and public tastes and/or goals that fostered the siting of people and property in hazardous places. Without critiquing these ideas and challenging the assumptions underpinning them – including that the public can be trained and educated to overcome its ‘apathy and ignorance’, or to resolve goal-conflict between community and fire services – and better evaluation of its evidence base, it is possible that Stay or Go could enjoy a resurgence in public and state fire strategies. Given the persistent failure of Victoria’s fire services to resolve the apathy and ignorance noted by both Stretton (1939) and Webster (2012), any such resurgence should be met with caution and careful critique before again being accepted as Victoria’s preferred public safety policy.
Chapter 9 Bibliography


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Appendix I: Partial Transcript of a 28 February 2012 Online Bushfire Information Session

How old are you?

16 or younger  (0%)
16 - 24  (0%)
25 - 34  (0%)
35 - 44  (100%)
45 - 54  (0%)
55 +  (0%)

What category best describes where you live?

Metropolitan Melbourne  (0%)
Outer Metropolitan  (0%)
Regional city/town  (0%)
Farmland  (100%)
On the coast  (0%)
Bush  (0%)

CFA Connect:
Any questions so far, although it does seem pretty quiet
Belinda Ainley:
I thought the weekend grassfires would ignite some interest in ......

CFA Connect:
Okay, now we'll be discussing the importance of leaving early and being well prepared.

Belinda Ainley:
Seems very quiet tonight - maybe it's the rain in the last few days......

CFA Connect:
Probably, so let's move on...... to Fire Danger Ratings. The Fire Danger Ratings are a prediction of how a bushfire would behave if it started, including how difficult it would be to put out. The higher the rating, the more dangerous the conditions. Code Red is the highest Fire Danger Rating – these are the worst conditions for a bushfire. Houses are not designed or constructed to withstand fires in Code Red conditions. On a Code Red day, leaving high risk bushfire areas the night before or early in the morning is the safest option. Code Red days are rare – when they are forecast they are very serious.

CFA Connect:
Does anyone have any questions so far?

CFA Connect:
Now we’ll be discussing the importance of leaving early and being well prepared.

Belinda Ainley:
We saw over the weekend that there is still a grassfire risk. With some warm dry weather things can dry out very quickly