



HOUSEHOLDERS' STATED BUSHFIRE SURVIVAL INTENTIONS UNDER HYPOTHETICAL THREAT

FACTORS ASSOCIATED WITH CHOOSING TO LEAVE, OR STAY AND DEFEND, OR WAIT AND SEE

PART 1: REPORT

PART 2: TECHNICAL SUPPLEMENT

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Householders' Stated Bushfire Survival Intentions Under Hypothetical Threat: Factors Associated With Choosing To Leave, or Stay and Defend, or Wait and See

Part 1: Report

Part 2: Technical Supplement

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Executive Summary

- 1. Following the 2009 Victorian bushfires, members of the Bushfire CRC Research Task Force interviewed a cross-section of survivors. Analyses of the interview transcripts showed that the main driver of what householders did when they became aware of the threat was their prior plan or intention for responding to a bushfire threat.
- 2. The present study involved a survey (postal and on-line) of households in communities identified by fire agency staff in the ACT, NSW, Tasmania and Victoria as being at risk of bushfire attack. The aim was to better understand why householders intend to either:

 (a) leave as soon as possible, or (b) stay and defend their home, or (c) wait and see what develops before committing to a final action following a bushfire threat warning.
- 3. Participating householders were given a description of a bushfire threat warning scenario and asked what they would most likely do in this situation: leave as soon as possible; stay and defend their home; wait and see what developed before committing to a final action to either leave or stay and defend.
- 4. A total of 584 householders responded to the survey. Of these, 273 (47%) said they would leave as soon as possible; 139 (24%) said they would stay and defend; 172 (29%) said they would wait and see what developed before committing to a final action.
- 5. We concluded that different psychological processes drove each of the three choices. Those whose intention is to **leave** are motivated mostly by concerns about safety: their own and that of members of their family. They perceive staying and defending to be too risky. Following a bushfire threat warning, they are likely to experience anxiety about: (a) their house being destroyed; and (b) dangers while evacuating. These two sources of anxiety are likely to inhibit some householders intending to leave from doing so in a timely manner. Very few (approximately 2%) are likely to leave solely on the basis of an 'extreme' fire danger weather prediction. Despite concerns about safety, only a little more than one-third reported having planned what to do on a day of extreme fire danger, and what to do if a bushfire threat warning was received.
- 6. Those whose intention is to **stay and defend** are motivated mostly by: (a) the desire to protect their property (defined broadly as home, contents, possessions, pets/livestock, and,

for some, their neighbours); and (b) confidence in their ability to do so. The desire to protect their possessions is given a higher priority than ensuring their own safety. Bushfire 'survival' probably does not resonate for them: they know that staying and defending involves risk. A little less than 60% reported having planned what to do on a day of extreme fire danger, and what to do if a bushfire threat warning was received.

7. Those whose intention is to **wait and see** are motivated mostly by concern not to make the wrong decision: (a) leaving unnecessarily and losing the house, being exposed to danger while evacuating, experiencing the inconvenience of evacuating; or (b) staying and being exposed to danger from a serious fire threat. They perceive their risk of being impacted by a bushfire to be relatively low and most believe that if a threat developed, they would have the time and the means to leave late safely. Seven per cent of these householders believe that authorities will warn them when it is time to leave or will protect them from any serious threat. One-quarter reported having planned what to do on a day of extreme fire danger, and what to do if a bushfire threat warning was received. Overall, these householders are somewhat less engaged with issues of bushfire safety compared with the other two groups of householders.

PART 1: REPORT

1. Introduction and Background

1.1 Bushfires in Australia—Past and Present

Historically, Australian communities have proved vulnerable to four kinds of natural disasters: tropical cyclones, severe storms, floods and bushfires. Of these, bushfires have accounted for the most fatalities since European settlement (Ellis *et al.* 2004). From 1900 to 2008, bushfires caused 552 recorded civilian deaths. Two-thirds of the deaths resulted from just 10 fires or fire seasons that all involved extreme fire weather conditions (Haynes *et al.* 2010). Fires that occurred in several parts of Victoria on 7 February 2009 ('Black Saturday') caused 173 deaths and the destruction of more than 2,000 homes. Fires in Western Australia on 29 December 2009 (Toodyay), on 10 January 2011 (Lake Clifton), on 6 and 7 February 2011 (Perth Hills), and in November 2011 (Margaret River) resulted in the destruction of more than 140 homes in total. There is a high level of agreement among bushfire scientists that global warming and climate change will result in more frequent and more intense bushfires in many regions across the world, including Australia, in coming decades (Hennessy *et al.* 2006; Liu *et al.* 2010).

1.2 Community Bushfire Safety

Following investigations into multi-fatality bushfires in Victoria, South Australia and Tasmania 1967 to 1983, Australasian fire agencies concluded that (a) civilians were most likely to die because of either the effects of radiant heat or as a result of a motor vehicle accident while fleeing at the last moment, and (b) suitably prepared homes could be defended against bushfires while providing a safe refuge for people during the passage of the main fire front (Handmer and Tibbits 2005). These conclusions informed the Australasian Fire Authorities Council's (AFAC) (Australasian Fire Authorities Council 2005) community safety position that able-bodied people should be encouraged to remain on their property so as to defend their home when threatened by a bushfire: 'By extinguishing small initial ignitions, people of adequate mental, emotional, and physical fitness, equipped with appropriate skills, and basic resources, can save a building that would otherwise be lost in a fire ... People should decide well in advance of a bushfire whether they will stay to defend them or leave if a bushfire threatens' (p. 6). This position came to be summarised as

'prepare, stay and defend, or leave early' (Tibbits et al. 2008) and was adopted as community bushfire safety policy by Australasian fire agencies.

Following the Victorian bushfires of 7 February 2009 (see below), AFAC revised aspects of its official safety position to give greater weight to the 'leave early' option: 'People usually have two safe options when threatened by bushfire: leaving early or staying and defending adequately prepared properties. Leaving early is always the safest option' (Australasian Fire and Emergency Service Authorities Council 2010, p. 1).

1.3 The 2009 Victorian Bushfires

On 7 February 2009, the State of Victoria experienced Australia's worst single day of bushfires in recorded history. Bureau of Meteorology warnings of extreme fire danger weather expected on the day were broadcast frequently, and reported extensively in daily newspapers during the preceding week.

From mid-morning, numerous fires broke out, or flared up, across much of Victoria. As predicted, the weather conditions were extreme, with high temperatures (>44°C), low relative humidities (<10%) and strong winds (>100 km h $^{-1}$) across much of the State. The rainfall for the previous 12 months was well below the annual average, and this followed a decade of drought conditions. There were 173 bushfire-related deaths in total, more than 2,000 homes were destroyed, and several rural communities were devastated, resulting in severe economic, social and environmental costs amounting to at least A\$4 billion.

In the aftermath of the fires, a Royal Commission of inquiry was established, which delivered its Final Report on 31 July 1010 (2009 Victorian Bushfires Royal Commission 2010). During the Commission hearings, fire agencies were criticised for failures to provide timely warnings to communities under threat. Evidence presented to the Royal Commission suggested that there may have been fewer fatalities and injuries if householders had made (and acted upon) bushfire survival decisions more appropriate to their situation in relation to the extreme weather conditions, especially decisions to leave—self-evacuate—before fires posed an immediate threat to life (see Handmer *et al.* 2010).

1.4 The Bushfire CRC Research Task Force

Immediately following the 7 February 2009 bushfires, senior staff from the Bushfire Cooperative Research Centre organised and coordinated a multi-agency task force to investigate aspects of the fires and to report findings to the 2009 Bushfires Royal Commission. A major component of the work of the Task Force was to interview a cross-section of householders in areas affected by eight particularly destructive fire complexes (Whittaker *et al.* 2010)

Interviews conducted with 496 residents from different households affected by the fires were analysed (McLennan *et al.* 2011, 2012). A key component of the analysis was investigating factors that influenced householders' survival decisions and actions under threat from the fires: to leave for a presumed safer location, or to stay and defend the property.

The findings suggested that for most of those who stayed and defended, the principal 'decision driver' was a prior commitment to a plan, or intention, to stay and defend the property. For many, determinants of a plan or intention to stay and defend included: (a) an emotional attachment to their home and neighbours; (b) a belief that they were to some extent responsible for protecting their property rather than relying on authorities; and (c) an expectation that they would be successful in their property defence endeavours.

It was more difficult to specify the principal drivers of a decision to leave. For most, the major distal (or remote) factor was the **absence** of a plan or intention to stay and defend. However, there was considerable variation among those interviewed in what influenced a decision or intention to **not** plan and prepare to stay and defend the property. For some, this was a perception or belief that their home was not at risk of bushfire attack. For others, this decision was based on belief that the likely danger to self and family was too great to warrant attempting to defend the property. However, very few householders perceived the danger to be so great that they left on the basis of the fire weather predictions prior to any indications of actual bushfire threat. For most of those interviewed who left, the act of leaving was prompted by a trigger event: an indicator or warning (official or unofficial) of the imminent danger. This 'event' was credible information about the proximity and/or intensity of the fire, and/or sensory cues from the environment—smoke, flames, embers, sound of the approaching fire.

Clearly, what a householder plans, or **intends**, to do if threatened by a bushfire is a powerful determinant of what a household **does** following a bushfire threat warning. To date, very little research has examined reasons involved in what householders intend to do in the face of a bushfire threat. Most published community bushfire safety research has been about factors associated with property preparation to mitigate damage due to bushfires (McLennan *et al.* 2012). The present study aimed to contribute to remedying this knowledge gap.

1.5 The Present Study

The present study involved a survey (postal and on-line) of households in communities identified by fire agency staff in the ACT, NSW, Tasmania and Victoria as being at risk of bushfire attack. The aim was to better understand why householders intend to either: (a) leave as soon as possible, or (b) stay and defend their home, or (c) wait and see what develops before committing to a final action following a bushfire threat warning.

2. Methodology

2.1 Background

As described above, the genesis of the research was finding that a principal driver of how householders responded to threats on 7 February 2009 was their prior intention about what to do if threatened by a bushfire (McLennan *et al.* 2011; McLennan *et al.* 2012). Little published research could be located that investigated householders' bushfire survival intentions beyond some surveys that asked what residents' bushfire survival intentions were, and what bushfire preparations they had undertaken (see Whittaker and Handmer 2010).

Beatson and McLennan (2010, 2011) argued that most previous research into community bushfire safety was based on pragmatic learnings from previous bushfires, and that there may be value in using social science-based theories to guide such research in the future. They proposed that four theories from social psychology as applied to health promotion and injury prevention had potential to inform community bushfire safety research: Theory of Planned Behaviour (TPB; Azjen 1991); Protection Motivation Theory (PMT; Rogers 1983); the Extended Parallel Processing Model (EPPM; Witte 1992); and the Terror Management Health Model (TMHM; Goldenberg and Arndt 2008). The present study used TPB and PMT to guide construction of part of a survey questionnaire to investigate likely determinants of householders' bushfire survival intentions in the event of a bushfire threat warning.

2.2 Survey Questionnaire

Because of limited time and resources to carry out the study, we decided to use a methodology of inviting residents in locations identified by fire agency staff as being at risk of bushfire attack to participate in the research by completing either an-online survey, or a paper questionnaire and returning this by reply-paid mail. Although the instructions for completion differed, both versions of the survey instrument had identical content.

The survey instrument comprised four components. The introductory *Participant Information Statement* provided background information about the research: purpose, funding source, eligibility to participate (aged 18 years or more, living near bushland, one

respondent per household), confidentiality and privacy precautions, the researchers, and procedures for complaints, as required by the La Trobe University Human Ethics Committee. *Part 1* asked householders to provide demographic information, describe previous training or experience with bushfires, and describe their house location. They were then presented with the following scenario and asked to choose their likely response:

Now imagine that during the fire season you and all those who normally reside with you are at home. It has been declared a day of 'Extreme Fire Danger', and there is a Total Fire Ban for your Region of the State/Territory. At about 3 pm you become aware of a warning (on the radio, or a web site, or by email, or text, or telephone) that there is a large bushfire burning out of control and that it will probably hit your location in 1-2 hours. You look outside and see a large plume of smoke being blown toward your property.

What do you think you would most likely decide to do?

- a. Leave as soon as you can
- b. Stay to defend the home
- c. Wait and see what develops, before finally deciding whether or not to leave, or to stay and defend.

In *Part 2*, householders were asked how at risk of bushfire they believed their home to be, and asked how likely it was that they would act as they had chosen in the event of an actual bushfire threat and how important it would be for them to undertake the chosen action. They were then presented with a set of potential reasons for having chosen (a), or (b), or (c) above. Each of the reason statements or questions was written so as to describe a component of TPB or PMT. For each, householders were asked to indicate their degree of agreement or disagreement with the statement. In *Part 3*, householders were asked to indicate the extent to which they had planned and prepared to respond to a bushfire threat, including completing a 21-item checklist of bushfire survival preparation actions. Construction of the checklist is described in McLennan and Elliott (2011).

2.3 Survey Procedure

Community bushfire safety agency staff in the ACT RFS, NSW RFS, TFS and Country Fire Authority were asked to nominate communities of interest because of their potential bushfire risk. They were asked to select communities comprising: farms or other isolated rural dwellings on large properties, homes in and around small-to-medium-sized rural towns, and homes on suburban streets near bushland.

The locations chosen were:

ACT: Bonython, Duffy, Fisher, Hackett, Holder, Tharwa, Weston

NSW: Captains Flat, Diggers Camp, Hornsby Heights, Kandos, Leura, Nelson Bay, Walla Walla

Tasmania: Bothwell, Deloraine, Dover, Mount Nelson, New Norfolk, Ouse, Port Sorell/Shearwater

Victoria: Beechworth, Delatite, Warrandyte, West Wodonga, Wonga Park, Yackandandah

(Responses also came from other nearby locations).

Residents of the selected communities were invited to participate in the research by a range of publicity and recruitment activities: stories and advertisements in local and regional newspapers; interviews on regional radio programs; posters placed in libraries and other places where residents gather; and leaflet mail-outs to selected postcodes. There was a total of 584 responses. Table 2.1 shows the number of responses from each of the three types of community location, across the four states and territory.

| State/Territory | House: farm/isolated rural | House: small/medium rural town | House: suburban street near bushland | Row totals |
|-------------------|----------------------------------|--------------------------------------|--|-------------------------|
| NSW | 12% (14) | 37% (73) | 38% (102) | 33% (189) |
| ACT | 4% (5) | 3%(5) | 34% (91) | 17% (101) |
| Victoria | 69% (81) | 42% (81) | 12% (34) | 34% (196) |
| Tasmania 15% (17) | | 18% (35) | 16% (42) | 16% (94) |
| Column totals | 100% (117) | 100% (194) | 100%(269) | 100% (580) ^a |

^a Four respondents did not provide a postcode.

2.4 Technical Note

Quantitative analyses were carried out using the IBM SPSS v.21 statistical software package. To improve readability, statistical material has been placed in the Technical Supplement (Part 2). However, to provide information on the relative magnitude of differences in mean scores between groups of householders, Cohen's d effect sizes have been reported where necessary. Cohen's d effect size = $(mean_1 - mean_2)/pooled$ standard deviation. It is the difference between the means of two groups expressed in standard deviation units; it is thus not affected by the possible range of scores. By convention, d < 0.2 = no meaningfuldifference; 0.2-0.49 = 'small' difference; 0.5-0.79 = 'medium' difference; 0.8+ = 'large' difference. To provide information about how strongly scores on two measures are correlated (or vary together), Pearson correlation coefficients r have been reported where necessary; r can range from -1 through zero to +1. By convention, |r| < 0.1 = no meaningfulcorrelation; 0.1–0.29 = 'small' correlation; 0.3–0.49 = 'medium' correlation; 0.5+ = 'large' correlation. To provide information about the strength of association among elements of contingency tables, Cramer's V has been reported where necessary. Cramer's V can range from 0 to 1. By convention, V < 0.1 = no meaningful association; 0.1-0.29 = 'small'association; 0.3–0.49 = 'medium' association; 0.5+ = 'large' association.

3. Findings

3.1 Intentions Following a (Hypothetical) Bushfire Warning

As described previously, householders completing the survey questionnaire were presented with the following bushfire threat warning scenario, and asked to choose which of the options (a)–(c) they would most likely decide to do:

Now imagine that during the fire season you and all those who normally reside with you are at home. It has been declared a day of 'Extreme Fire Danger', and there is a Total Fire Ban for your Region of the State/Territory. At about 3 pm you become aware of a warning (on the radio, or a web site, or by email, or text, or telephone) that there is a large bushfire burning out of control and that it will probably hit your location in 1–2 hours. You look outside and see a large plume of smoke being blown toward your property. What do you think you would most likely decide to do?

- a. Leave as soon as you can
- b. Stay to defend the home
- c. Wait and see what develops, before finally deciding whether or not to leave, or to stay and defend.

Of the 584 respondents, 47% (n = 273) intended to (a) **leave** as soon as possible; 24% (n = 139) intended to (b) **stay and defend**; 29% (172) intended to (c) **wait and see** what developed before making a final decision to leave or stay and defend.

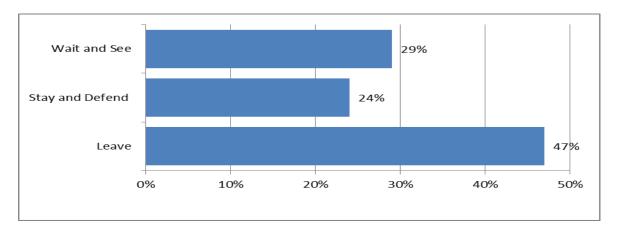


Figure 3.1. Horizontal bar chart: Responses to: 'What do you think you would most likely do?'

3.1.1 Likelihood of acting on the intention

Participants reported varying levels of commitment to these expressed intentions (Figure 3.2), with higher percentages of householders who intended to Leave or to Stay and Defend reporting that they would be 'almost certain' or 'extremely likely' to act upon their intentions if a bushfire actually threatened (V = 0.36).

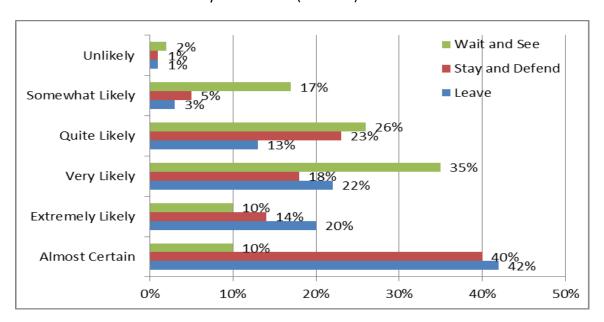


Figure 3.2 Horizontal bar chart: Responses to 'How likely is it that you would leave/stay and defend/wait and see?'

3.1.2 Relative strength of commitment to each intention

A composite mean index of Strength of Commitment to act upon the stated intention (likelihood of acting *plus* importance of acting) was calculated for each group (the value of the index could range from 2 to 10). Mean Strength of Commitment score was found to be lowest for those who intended to Wait and See, and higher for those who intended to Leave or to Stay and Defend.

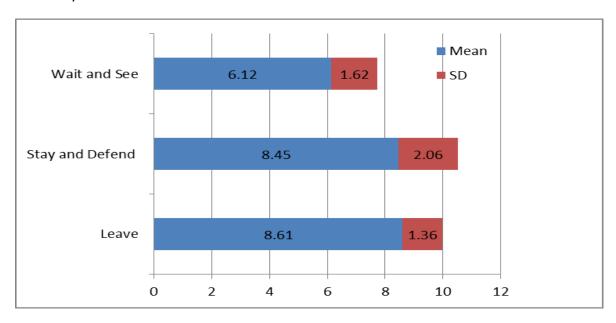


Figure 3.3. Horizontal bar chart: Responses to: 'How likely is it that you would leave/stay and defend/wait and see?' (1–5) *plus* responses to: 'I would leave/stay and defend/wait and see no matter what the difficulties might be on the day' (1–5).

There was a large difference in mean Strength of Commitment between those intending to Leave and those intending to Wait and See (d=1.67), and a large difference in mean Strength of Commitment between those intending to Stay and Defend and those intending to Wait and See (d=1.26). There was no meaningful difference between means for those who intended to Leave and those who intended to Stay and Defend (d=0.01).

3.1.3 Determinants of strength of commitment to a particular intention to respond to a bushfire threat warning

A set of questionnaire items each describing a potential factor determining the strength of a bushfire threat response intention was constructed. Each item was written so as to measure a component of two multi-component theoretical models of health promoting and injury preventing behaviour: Theory of Planned Behaviour (Azjen 1991) and Protection Motivation Theory (Rogers 1983) (Appendix A). The aim was to better understand psychological processes involved in choosing a particular bushfire survival intention option. A statistical analysis procedure was used to identify those components of the two theories that were the most important independent predictors of strength of intention to Leave, or to Stay and Defend, or to Wait and See (Section 3.1.2).

For both the models, Strength of Intention is defined as the sum of responses to 'How likely is it that you would leave/stay and defend/wait and see?' (1–5), and responses to: 'I would leave/stay and defend/wait and see no matter what the difficulties might be on the day' (1–5). Scores can range from 2 to 10.

The TPB model of health promotion and injury prevention is essentially a cognitive theory that proposes that actions are driven by intentions, which in turn are determined by a combination of cognitive factors: attitudes, beliefs, and perceptions of self and others.

TPB Components

Basic TPB Model

Attitude Strength: The perceived likelihood of being safe from bushfire threat if the action was implemented and the importance of this outcome.

Subjective Norms: The perceived wishes of important others about safe actions following a bushfire warning.

Perceived Behavioural Control: The perceived ease or difficulty of carrying out the bushfire safety action following a bushfire warning.

Additional components

Descriptive Norms: The perceived bushfire safety actions that others engage in following a bushfire warning.

Moral Norms: Feelings of personal responsibility to perform safe actions following a bushfire warning.

Self-identification: How individuals view themselves in relation to bushfire safety actions.

Anticipated Affect: Anticipated emotions if the bushfire safety action is carried out.

Self-determination: Feelings of autonomy about choice of bushfire safety action.

The PMT model of health promotion and injury prevention is also a cognitive model, but unlike TPB, it specifies the kinds of factors likely to inhibit versus facilitate adaptive behaviours in the face of perceived threat. PMT emphasises two appraisal processes: of threat, and of coping ability.

PMT Components:

Threat appraisal processes

Severity of Risk: Beliefs about the severity of bushfire threat.

Vulnerability to Risk: Beliefs about personal vulnerability to bushfire threat.

Perceived Rewards: Evaluation of the rewards of *not* taking any protective actions in relation to bushfire threat.

Coping appraisal processes

Perceived Costs: Perceived costs involved in *taking* protective actions in relation to bushfire threat.

Response Efficacy: Expectations that taking protective actions will reduce the danger from bushfire.

Self-efficacy: Expectations that one is capable of carrying out actions to protect against bushfire.

3.1.3.1 Predictors of strength of intention to **Leave**

- Confidence that leaving is a safe option (TPB: Attitude Strength; PMT: Response Efficacy)
- 'Owning' the decision to leave (TPB: Self-determination)
- The wishes of family and close friends (TPB: Subjective Norms)
- Not being overly concerned about the possibility of losing the house (TPB: Anticipated Affect)
- Confidence in ability to leave safely under a bushfire threat (TPB: Perceived Behavioural Control; PMT: Self-efficacy)
- Absence of obstacles to leaving (PMT: Cost)

3.1.3.2 Predictors of strength of intention to Stay and Defend

- Confidence that staying and defending is a safe option (TPB: Attitude Strength; PMT: Response Efficacy)
- 'Owning' the decision to stay and defend (TPB: Self-Determination)

3.1.3.3 Predictors of strength of intention to **Wait and See** what develops before committing to a final decision to either Leave or Stay and Defend

- The wishes of family and close friends (TPB: Subjective Norms)
- 'Owning' the decision to wait and see (TPB: Self-determination)
- Not being overly concerned about the possibility of losing the house (TPB: Anticipated Affect)
- Feelings of moral responsibility to wait and see before committing to a final action (TPB: Moral Norms)

3.1.3.4 Discussion

The findings suggest that there are rather different cognitive processes involved in choosing to Leave, or to Stay and Defend, or to Wait and See.

(a) For householders intending to Leave, strength of intention to leave was predicted well by the basic TPB model:

Attitude Strength (Outcome Efficacy in the PMT model) –

I believe that leaving would be a safe option for ensuring my survival

In the situation described leaving would be a safe option for most people

Leaving would significantly improve my chances of survival.

Subjective Norms -

Those who are most important to me would prefer that I leave, rather than stay and defend

I would want to follow the wishes of those who are most important to me.

Perceived Behavioural Control -

I am physically and mentally fit enough to leave in such a situation

I am confident I would be able to leave in this scenario.

Plus;

Self-determination -

My decision to leave, or stay, or wait would be entirely my own

The opinions and feelings of others would have little influence on my decision to stay and defend or leave under such circumstances.

Anticipated Affect -

I would regret it if I decided to leave and my house was destroyed (disagree)

The (low) Cost component of the PMT model also emerged as a significant predictor –

Leaving would be difficult for me (**disagree**)

Taken together, the predictors are consistent with householder *safety* in the face of bushfire threat being the main driver.

(b) For householders intending to Stay and Defend, there were only two predictors of strength of intention to stay and defend:

Attitude Strength/Outcome Efficacy (TPB/PMT) -

I believe that staying and defending would be a safe option for ensuring my survival

How important is your personal safety in a bushfire? (**not** important)

Staying and defending would significantly improve my chances of survival

How important to you is it that your house is not destroyed? (important)

Staying and defending would significantly improve my chances of saving my house.

Self-determination (TPB) -

The opinions and feelings of others would have little influence on my decision to stay and defend or leave under such circumstances

My decision to leave, or stay, or wait would be entirely my own.

These suggest that householder safety is not the major issue: *protecting the house and possessions* is the main driver.

(c) For householders intending to Wait and See before committing to a final course of action, there were four predictors of strength of intention to wait and see:

Subjective Norms (TPB) -

Those who are most important to me would prefer that I wait and see, before deciding to leave or stay.

Self-determination (TPB) -

The opinions and feelings of others would have little influence on my decision to stay and defend or leave under such circumstances

My decision to leave or stay, or wait would be entirely my own.

Anticipated Affect (TPB) -

I would feel anxious about waiting around before making my decision to leave or stay. (disagree)

Moral Norms (TPB) -

I believe I have a moral obligation wait and see what develops in this type of scenario.

This combination of predictors, especially the presence of Moral Norms and the absence of Outcome Efficacy, suggests that concern over possibly making the *wrong* decision (leave unnecessarily, or stay and have to survive a dangerous fire) is the main driver.

In relation to the two models, the findings indicate that the two personal the threat appraisal process components of PMT—severity and vulnerability—are not prominent as drivers of any of the three intentions.

3.1.4 Reasons for rejecting alternative choices

3.1.4.1 Those who intend to Leave

Householders were invited to write down the main reason that they did not choose the Stay and Defend option. The reasons were compiled and examined for content and themes. Seven different themes were identified, with over half of the reasons being (a) general statements about the risks involved in staying to defend being too great. Four other themes concerned specific risk factors: (b) inability to defend because of age, infirmity or disability; (c) house not defendable; (d) risk to dependent children; and (e) lack of escape routes. Of the other two themes, one was (f) prior experience with bushfires, the other was (g) that rented premises did not warrant defence. Overall, householders who chose the Leave option saw staying and defending as involving unacceptable risk.

Table 3.1. Reasons (n = 211) given by householders intending to Leave for *not* choosing the 'Stay and Defend' option

| Reason category | % (number) | Reason examples |
|---|------------|--|
| (a) Perceived risk too great | 53% (112) | It is safer to leave and be certain of survival. |
| | | Because my life and children's life is far more important than my home. |
| | | Everything is insured, let it burn. My pets and I are the only thing insurance can't replace. |
| | | Fire is unpredictable, getting away in safety is the main issue before access roads are blocked. |
| (b) Unable owing to age, infirmity, disability | 13% (28) | I am nearly 70 years old and live alone so it would be out of the question for me physically to defend the property. |
| (c) House is not defendable: environment, construction, lack of equipment | 13% (27) | Our home is on the top of a very steep hill surrounded by bush. |
| | | Lack of equipment to successfully defend a poorly designed structure. |
| (d) Risk to dependent children | 8% (17) | I have an eight-year-old daughter who I don't want to have to experience the terror of bushfire. |
| (e) No means of escape | 1% (3) | Suburb is a death-trap, thick bushland with only three routes out. |
| (f) Previous experience with bushfires | 9% (19) | We did (stay and defend), but I wouldn't do it again |
| (g) Renting | 2% (5) | I do not own the property and material possessions can be replaced. |

3.1.4.2 Those who intend to Stay and Defend

Householders were invited to write down the main reason that they did not choose the Leave option. The reasons were compiled and examined for content and themes. Six themes emerged. Three themes accounted for three-quarters of the reasons proposed for not leaving (Table 3.2): (a) householders were committed to defending their property, and they were confident that they would be successful because (b) the house was defendable, and (c) they were capable of doing the defending. A fourth theme was that (d) the alternative of leaving might be more dangerous than defending. The remaining two themes were associated with staying and defending *not* being seen as a risky option because of: (e) low threat, and (f) availability of an escape or refuge option.

Table 3.2. Reasons (n = 118) given by householders intending to Stay and Defend for *not* choosing the 'Leave as soon as possible' option

| Reason category | % (number) | Reason example |
|---|------------|--|
| (a) Committed to saving the house/animals/livestock | 30% (35) | I have a home I built myself, I have animals I am responsible for. When and where do you go in that situation? |
| (b) Confidence that the house is defendable | 29% (34) | The main reason is that I think my house in this area is defendable. |
| (c) Confident self-efficacy | 17% (20) | Confident of defending the house. I know that the house has the best chance if I am there to defend. |
| (d) Attempting to leave under threat would be too dangerous | 12 %(14) | I live in There is a real risk of being trapped on the only escape route by the fire and/or traffic—other people trying to escape. |
| (e) The risk of a bushfire threatening the house is low | 8% (9) | There are no heavy fuel loads directly around my property. |
| (f) There is a safe refuge | 5% (6) | We have a safe place under the house to retreat to if necessary and have prepared for defending our home. Defendable location of my home together with easy access to a safe open-space location. |

3.1.4.3 Those who intend to Wait and See

Those householders who chose the Wait and See option were invited to describe their reasons for *not* intending to Leave as soon as possible; 142 householders provided 157 reasons. The written reasons were analysed and sorted into five categories on the basis of content (Table 3.3): (a) perceived low level of risk associated with waiting; (b) reluctance to leave because of perceived potential costs and dangers; (c) self-reliant confidence of surviving any threat; (d) 'others' would be responsible for warning or protecting in the event of an actual threat; (e) dependence on others for transport.

Table 3.3. Reasons (n = 157) given by householders intending Wait and See for *not* choosing the 'Leave as soon as possible' option

| Reason category | % (number) | Reason example |
|--|------------|---|
| (a) Perceived low level of risk in waiting | 45% (71) | Because I do not feel our home will ever be under threat. Feel our property is defendable. There are numerous safe routes available. Unless it is windy, the fire will be far enough away to see. |
| (b) Reluctance to leave because of potential costs and dangers | 34% (53) | I would hate my house to be destroyed by a small fire I could have put out easily. Potential for roads to be cut or involved with fire. Because packing and unpacking is time-consuming and potentially damaging to my goods. |
| (c) Self-reliant confidence of survival | 12% (19) | As a trained firefighter, I believe I have the skills and ability to defend my property. The property is well equipped for firefighting. |
| (d) 'Others' responsible will warn or protect | 7% (11) | Instructed to stay until given the order to evacuate by authorities. Street is well trained and equipped through the (Community Fireguard) system. |
| (e) Depend on others for transport | 2% (3) | No transport, too much stuff to carry on my own. |

Respondents were also invited to state in their own words why they had *not* chosen the Stay and Defend option. Ninety-nine householders provided a reason for not intending to stay and defend their home. The reasons were analysed for content and were found to fall into one of five categories (Table 3.4): (a) potential danger to self or others associated with staying and defending (58%); (b) successful defence would depend on the actual severity of the fire threat (21%); (c) age, infirmity or disability of the respondent or other household members (12%); (d) reliance on agencies for information about the danger posed by the fire (7%); (e) the house was rented (2%). The reasons indicate that most respondents understood bushfires to be very dangerous hazards, suggesting that choosing the Wait and See option was not due simply to lack of awareness of the potential threat posed by a bushfire.

Table 3.4. Reasons (n = 99) given by householders intending to Wait and See for *not* choosing the 'Stay and Defend' option

| Reason category | % (number) | Reason example |
|---|------------|--|
| (a) Potential danger to self or others | 58% (57) | A property can be rebuilt, a human life can't. |
| (b) Staying and defending successfully depends on the severity of the fire threat | 21% (21) | If it was a really big fast fire, I would not be confident I could defend against it. |
| (c) Age, infirmity, disability | 12% (12) | Physically not up to it. |
| (d) Reliance on agencies for advice about the danger posed by the fire | 7% (7) | I would not stay if authorities told me I should leave. |
| (e) The house is rented | 2% (2) | It's a rental property and it is not worth me risking harm to myself for someone else's property, and my possessions are not worth much. |

3.1.4.4 Discussion

Examining the stated reasons for not choosing an alternative supports an emerging overall picture. Most of those intending to Leave see this as their safest option: staying and defending is perceived to be too risky. Most of those intending to Stay and Defend do not want to lose their house, contents and other possessions, and they believe that they will be successful in their defence endeavours. Most of those who intend to Wait and See do not perceive the risk posed by bushfire to be overly great, but they do not want to be menaced by a serious fire and they believe that they will be able to leave safely if their worst fears are confirmed.

3.1.5 Bushfire risk perceptions

3.1.5.1 Bushfire risk perceptions: Likelihood of an imminent bushfire threat as described in the hypothetical scenario

There were no significant differences among the three groups of householders in perceived likelihood of the threat described (Figure 3.4).

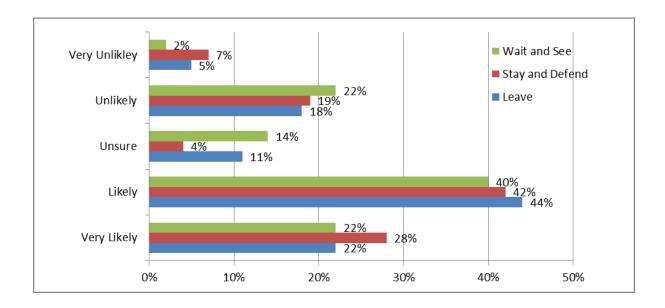


Figure 3.4. Horizontal bar chart: Responses to: 'How likely do you think it is that you could be in the situation described?'

3.1.5.2 Bushfire risk perceptions: Vulnerability of the house

Most householders perceived their house to be 'moderately' vulnerable to a bushfire. A slightly greater percentage of householders who intended to Leave perceived their house to be 'highly' or 'extremely' vulnerable: V = 0.17 (Figure 3.5).

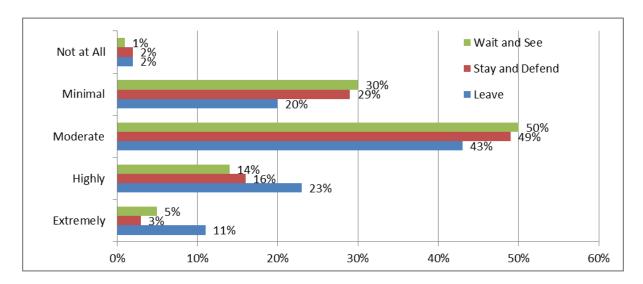


Figure 3.5. Horizontal bar chart: Responses to: 'Rate overall how vulnerable you think your house is to bushfire'.

3.1.5.3 Bushfire risk perceptions: Proximity to bushland

There were no meaningful differences among the three groups of householders in their perceptions of possible threat to their homes on the basis of proximity to bushland (Figure 3.6).

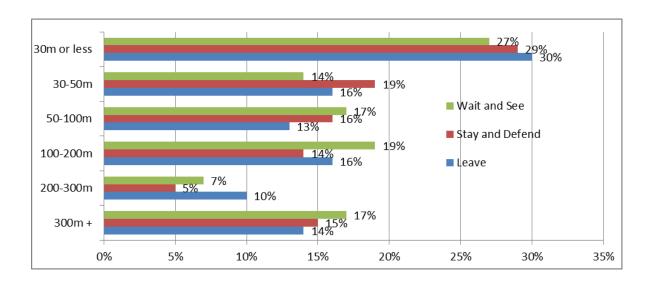


Figure 3.6. Horizontal bar chart: Responses to: 'About how far is your house from bushland (long grass, scrub, trees)?'

3.1.5.4 Bushfire risk perceptions: Resistance of house construction material to bushfire attack

Overall, a somewhat greater percentage of householders who intend to Leave believed that their house construction offered 'no' or 'minimal' protection from bushfire attack: V = 0.17 (Figure 3.7).

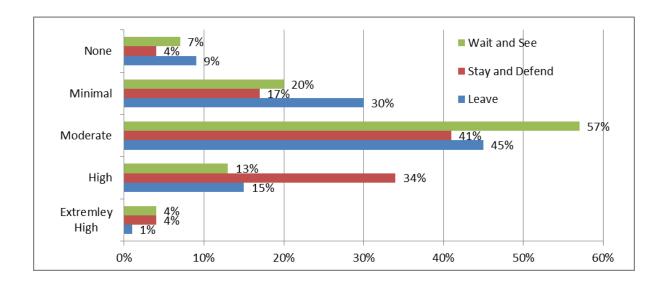


Figure 3.7. Horizontal bar chart: Responses to: 'Please rate the extent to which your house construction material would protect your house if a bushfire did threaten your property'.

3.1.5.5 Bushfire risk perceptions: Ease of safe evacuation under a bushfire threat

There were no meaningful differences among the three groups of householders in their assessments of possible danger associated with their escape routes (Figure 3.8).

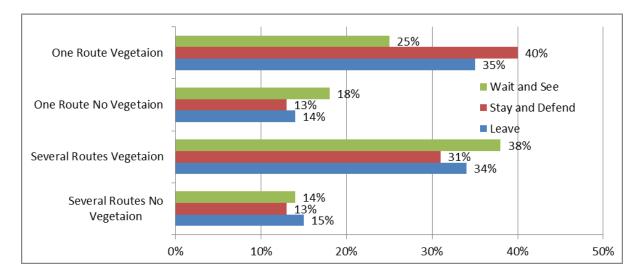


Figure 3.8. Horizontal bar chart: Responses to 'What is road access to your property like?'

3.1.5.6 Bushfire risk perceptions: Optimistic threat warning outcome expectations

A greater percentage of householders intending to Leave or to Wait and See had an optimistic expectation that a bushfire threat may not eventuate because the wind would change direction: V = 0.27 (Figure 3.9).

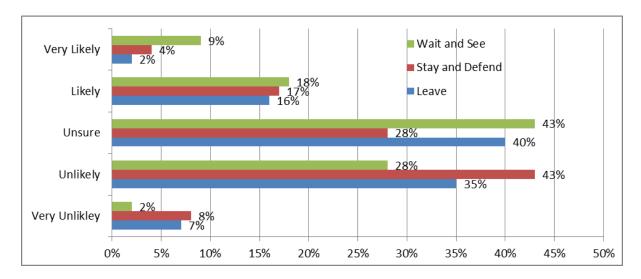


Figure 3.9. Horizontal bar chart: Responses to: 'How likely do you think it is that the wind would change and direct the fire away from your house?'

3.1.5.7 Bushfire risk perceptions: Anticipated time window to leave safely

A greater percentage of householders intending to Wait and See anticipated a lengthy time window to leave safely (at least an hour): V = 0.18 (Figure 3.10).

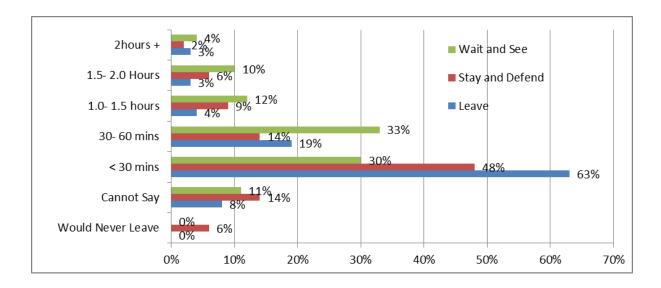


Figure 3.10. Horizontal bar chart: Responses to 'From the time you receive the warning, how much time do you think you would have to leave with no danger?'

3.1.5.8 Discussion

There were seven indicators of level of householder bushfire risk perception. Those intending to Leave were somewhat more likely to perceive their risk to be *higher* on two indicators: house vulnerability and low protection afforded by house construction. Those intending to Wait and See were somewhat more likely to perceive their risk to be *lower* on two indicators: optimistic outcome of a threat warning and greater anticipated time window for safe evacuation.

3.1.6 Anticipated emotions associated with acting on the intention

Householders were invited to describe the emotions that they anticipated they would feel if they acted upon their intention. Of 584 householders, 483 described the emotions they thought they would experience if they acted upon their choice. There was considerable variation in detail provided; some wrote a single word, some used phrases, others provided considerable detail and explanation. Householders interpreted 'emotions' very broadly and it would be more accurate to describe what they wrote about as being 'anticipated *experiences*'. A total of 51 different emotionally toned anticipated experiences were described. Anticipated emotional experiences were grouped on the basis of apparent content similarity, resulting in 12 experience-clusters. These are shown below in Table 3.5.

Table 3.5. Analyses of responses to the invitation to: 'Please describe the emotions you would feel if you decided to Leave/Stay and Defend/Wait and See.'

| | Intention: Leave | Intention: | Intention: |
|----------------------|------------------|-----------------|---------------|
| | | Stay and Defend | Wait and See |
| Number of | 273 | 139 | 172 |
| householders (N) | | | |
| Number of | 241 | 119 | 123 |
| respondents | | | |
| describing | | | |
| anticipated emotions | | | |
| (n) | | | |
| N/n as a percentage | 88% | 86% | 72% |
| Total number of | 384 | 205 | 226 |
| emotion terms | | | |
| reported (E) | | | |
| Average number of | 1.6 | 1.7 | 1.8 |
| emotions reported | | | |
| per respondent (E/n) | | | |
| % Positive emotions | 19% (72/384) | 34% (70/205) | 31% (71/226) |
| % Negative emotions | 78% (301/384) | 65% (134/205) | 69% (155/226) |

| % Neutral descriptors | 3% (11/384) | 0.5% (1/205) | - |
|-----------------------|---------------|---------------|---------------|
| | | | |
| Positive emotions | | | |
| 1 Relief % | 56% (40/72) | - | - |
| 2 Self-approval % | 19% (14/72) | - | - |
| 3 Alertness % | 17% (12/72) | 24% (17/70) | 62% (44/71) |
| 4 Confidence % | 8% (6/72) | 54% (38/70) | 38% (27/71) |
| 5 Focused % | _ | 22% (15/70) | _ |
| | | | |
| Negative emotions | | | |
| 6 Anxiety % | 69% (207/301) | 87% (117/134) | 82% (127/155) |
| 7 Sadness % | 17% (56/301) | - | 0.5% (1/155) |
| 8 Uncertainty % | 8% (23/301) | 10% (14/134) | 15% (23/155) |
| 9 Anger % | 3% (8/301) | 2% (3/134) | 3% (4/155) |
| 10 Guilt % | 3% (7/301) | - | - |
| | | | |
| Neutral descriptors | | | |
| 11 Acceptance % | 11 (100%) | _ | _ |
| 12 Resignation % | _ | 1 (100%) | _ |

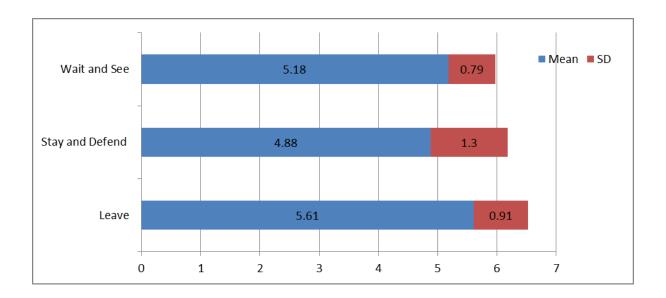
(a) Householders intending to Leave described an appreciably higher percentage of negative emotions and a lower percentage of positive emotions compared with those intending to Stay and Defend or Wait and See. The most common anticipated positive emotional experience described was 'relief' at no longer being under imminent threat of bushfire attack. Inspection of the accounts provided indicated that an appreciable number of these householders described two simultaneous sources of anxiety-related emotional experiences: anxiety about their house being destroyed in their absence, and anxiety about dangers associated with leavingbeing caught on the road by the bushfire, being involved in an accident, threats posed by hazardous driving conditions. This 'double-whammy' of anxiety associated with leaving may explain in part why some householders apparently find it so difficult to actually commit to the action of leaving, and only leave at the last minute when it is clear that they have no option but to do so (McLennan *et al.* 2011, 2012). The second most frequently reported positive anticipated experience can best be described as 'self-approval for having made the difficult decision to leave'.

- (b) More than half (117/205 = 57%) of anticipated emotions described by householders intending to Stay and Defend involved anxiety about the dangers involved in active defence; several commented about concerns that they might misjudge the danger posed by the fire or that something unexpected might go wrong. All the anticipated positive experiences were associated with the task of successfully defending the house: confidence, alertness, focus and concentration.
- (c) An appreciably smaller percentage of those intending to Wait and See responded to the request to describe anticipated emotions compared with those intending to Leave or to Stay and Defend—72% as compared with 88% and 86%, respectively. This is consistent with these householders experiencing a somewhat lower overall level of psychological engagement with the possibility of a bushfire threat

3.2 Individual Householder Characteristics and Intentions

3.2.1 Emotional reactivity to threat

Self-reported Emotional Reactivity to Threat scores were calculated for each householder; scores could range from 2 to 10. Mean Threat Reactivity score for those intending to Stay and Defend was significantly lower than for those intending to Leave (d = 0.65) and for those intending to Wait and See (d = 0.53). Mean scores for those intending to Leave were somewhat higher than for those intending to Wait and See (d = 0.28).

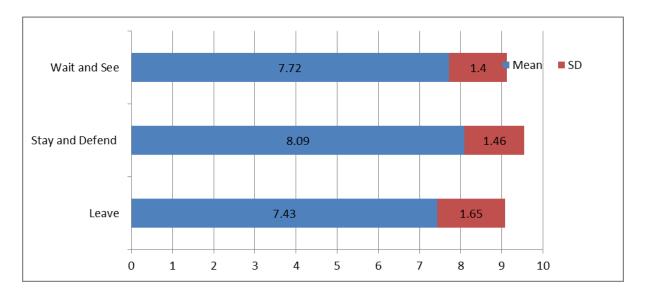


Total Emotional Reactivity Score

Figure 3.11. Horizontal bar chart: Responses to 'When I get scared I panic' (1–5) *plus* 'I am always calm—nothing ever bothers me' (5–1).

3.2.2 Sense of community

Reported Sense of Community scores were calculated for each householder; scores could range from 2 to 10. Mean Sense of Community score for those intending to Stay and Defend was somewhat higher than for those intending to Leave (d = 0.42) and those intending to Wait and See (d = 0.26). Mean scores did not differ significantly between those intending to Leave and those intending to Wait and See (d = 0.19).

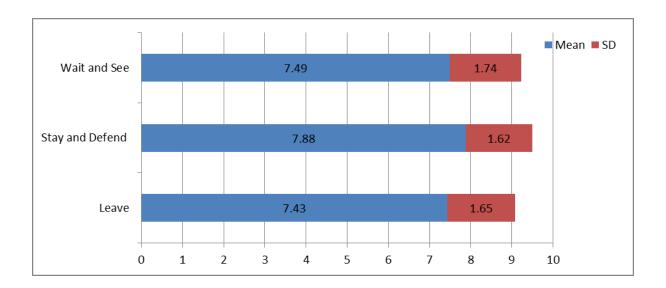


Total Sense of Community Score

Figure 3.12. Horizontal bar chart: Responses to: 'I am on first-name terms with many of my neighbours' (1–5) plus 'People around here work together to try to improve things in the community' (1–5).

3.2.3 Emotional attachment to home

Reported Emotional Attachment to Home scores were calculated for each householder; scores could range from 2 to 10. Mean Emotional Attachment to Home score for those intending to Stay and Defend was somewhat higher than for those intending to Leave (d = 0.28) and those intending to Wait and See (d = 0.23). Mean scores did not differ significantly between those intending to Leave and those intending to Wait and See (d = 0.04).



Total Emotional Attachment to Home Score

Figure 3.13. Horizontal bar chart: Responses to 'I miss my property when I am away too long' (1–5) *plus* 'Where I live is my favourite place to be' (1–5).

3.2.4 Discussion

There were meaningful overall differences among the three groups of householders on the three individual characteristics studied. Those intending to Stay and Defend reported: (a) a lower mean level of Emotional Reactivity, and higher mean levels of (b) Sense of Community and (c) Emotional Attachment to Home. This is consistent with a general tendency for householders who intend to Stay and Defend to perceive protecting their 'property' (encompassing home, contents, possessions, pets and livestock, and neighbours) as being more immediately important than their own personal safety.

3.3 Previous Bushfire Experience and Bushfire-related Training

3.3.1 Previous experiences of bushfire threat warnings

Table 3.6 indicates that a slightly greater percentage of those who intended to Stay and Defend had previous bushfire threat warning experience compared with those who intended to Leave (V = 0.15). Also, a very large proportion (80%) of those who intended to Wait and See had previously experienced a bushfire threat warning (V = 0.41), and many (58%) of these householders left in response to the threat warning. However, this latter finding should be interpreted with some caution: a substantial number of these respondents were from the ACT and had experienced the 2003 Canberra fires.

Table 3.6. Previous experiences of bushfire threat warnings

| Previous experience of a bushfire threat warning? | Intend to Leave | Intend to Stay and Defend | Intend to Wait and See |
|---|-----------------|---------------------------|------------------------|
| - | 220/ (05) | - | |
| YES | 32% (86) | 47% (66) | 80% (139) |
| Left | 48% (41) | 9% (6) | 58% (81) |
| Ready to leave | 19% (16) | _ | 4% (6) |
| Stayed and defended— successful | 23% (20) | 55% (36) | 27% (38) |
| Stayed and defended— house destroyed | 2% (2) | 3% (2) | <1% (1) |
| Stayed—ready to defend | 8% (7) | 33% (22) | 9% (13) |
| NO | 68% (187) | 53% (75) | 20% (35) |
| | | | |
| Total ^a | 100% (273) | 100% (141) | 100% (174) |

^a A few householders reported outcomes for more than one previous experience.

3.3.2 Previous bushfire-related training

Table 3.7 shows that a greater percentage of those who intend to Stay and Defend reported bushfire-relevant training and/or experience compared with those who intend to Leave and those who intend to Wait and See (V = 0.26).

Table 3.7. Training concerning bushfires

| Training status | Intend to | Intend to Stay | Intend to |
|--|------------|----------------|--------------|
| | Leave | and Defend | Wait and See |
| Currently or previously a member of a fire | 12% (32) | 35% (48) | 12% (21) |
| brigade | | | |
| Undertaken some training about | 11% (30) | 19% (26) | 6% (11) |
| bushfires | | | |
| No formal training, but instructed by | 17% (46) | 11% (15) | 14% (24) |
| family/friends | | | |
| No formal training, but experience in | 6% (17) | 11% (15) | 13% (23) |
| fighting bushfires | | | |
| Other bushfire-relevant training or | 6% (16) | 8% (11) | 12% (21) |
| experience ^a | | | |
| No bushfire-relevant training or | 48% (131) | 17% (24) | 42% (72) |
| experience | | | |
| | | | |
| Total | 100% (272) | 100% (139) | 100% (172) |

^a Included: employment-related fire safety training, personal experience of bushfires (mostly reported by those intending to Wait and See—see Table 3.6), membership of Community Fireguard, reading.

3.3.3 Membership of Community Fireguard

Householders were asked 'Have you ever been a member of a Community Fireguard group or similar?' More than one-third of those who intend to Stay and Defend (38%) answered 'yes', compared with 19% of those who intend to Leave, and 13% of those who intend to Wait and See (V = 0.18).

3.3.4 Awareness of agency bushfire safety information

Householders were asked 'Have you read any of the material on bushfire safety prepared by your State or Territory rural or country fire service?' 'Yes' response tallies were: intend to Leave: 87%; intend to Stay and Defend: 96%; intend to Wait and See: 88%. These percentages did not differ significantly among the three groups of householders.

3.4 House Location

Householders were asked to indicate the location of their home: (a) on a farm or other isolated rural setting; (b) in a small country town; or (c) on a suburban street near to bushland. As Table 3.8 shows, there were associations among house location and intention following a bushfire threat warning (V = 0.15). For all three locations, the majority of householders intended to Leave following a bushfire threat warning. Householders residing on farms and other isolated rural settings were least likely to Wait and See, householders residing in suburban streets near bushland were least likely to Stay and Defend.

Table 3.8 House location in relation to intention

| House location | Intend to Leave | Intend to Stay and Defend | Intend to Wait and See | Total |
|--|--------------------|------------------------------|------------------------|------------|
| Farm, isolated rural setting | 45% (56) | 37% (46) | 18% (23) | 100% (125) |
| In a small rural town | 46% (91) | 25% (51) | 29% (58) | 100% (200) |
| In a suburban street near bushland | 47% (121) | 17% (42) | 36% (92) | 100% (255) |
| Total number | (268) | (139) | (173) | (580) |

3.5 Preferred Sources of Information Following a Bushfire Threat Warning

There were no meaningful differences among the three groups of householders in frequency of preferred sources of information following a bushfire threat warning.

Table 3.9 Preferred sources of information tabulated by intention

| Source | Intend to | Intend to Stay | Intend to Wait | Row totals |
|---------------------------|------------|----------------|----------------|------------|
| | Leave | and Defend | and See | |
| Radio | 25% (219) | 26% (108) | 25% (140) | 467 |
| Internet: Agency web site | 19% (169) | 19% (79) | 17% (98) | 346 |
| Environmental cues | 15% (131) | 21% (87) | 20% (113) | 331 |
| Mobile phone: SMS message | 12% (103) | 8% (33) | 8% (47) | 183 |
| Neighbours | 11% (100) | 13% (53) | 13% (75) | 228 |
| TV | 10% (89) | 6% (25) | 9% (53) | 167 |
| Family/friends | 6% (50) | 5% (21) | 5% (31) | 102 |
| Internet: Facebook | 1% (12) | 1% (4) | 1% (5) | 21 |
| Internet: Twitter | <1% (6) | <1% (2) | <1% (2) | 10 |
| Mobile phone: Facebook | <1% (5) | <1% (3) | _ | 8 |
| Mobile phone: Twitter | <1% (4) | <1% (1) | <1% (2) | 7 |
| Total | 100% (888) | 100% (416) | 100% (566) | (1870) |

In light of recent discussions of the likely role of social media as a source of information in disaster situations (e.g. Palen 2008), the small number of respondents who nominated these as preferred sources of information is perhaps surprising.

3.6 Planning and Preparation for Bushfire Survival

3.6.1 A household bushfire survival plan for a day of predicted extreme fire danger

Of the 584 householders, 208 (36%) reported having prepared a household fire plan for a day of predicted extreme or worse fire danger weather. A greater percentage of those intending to Stay and Defend reported having prepared such a fire plan (V = 0.17).

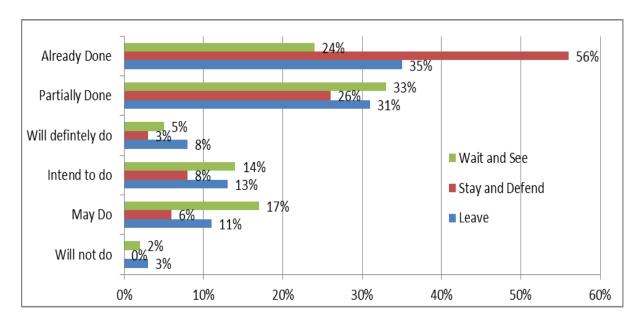


Figure 3.14. Horizontal bar chart: Responses to: 'Prepared a plan involving all members of the household for what to do when a day of extreme fire danger or worse is predicted for your region?'

3.6.2 Planning for bushfire survival when there is a bushfire threat warning

Of the 584 householders, 223 (38%) reported having prepared a plan for survival when there is a bushfire threat warning.

A greater percentage of householders who intended to Stay and Defend reported having a plan for what to do when there is a bushfire threat warning: V = 0.13.

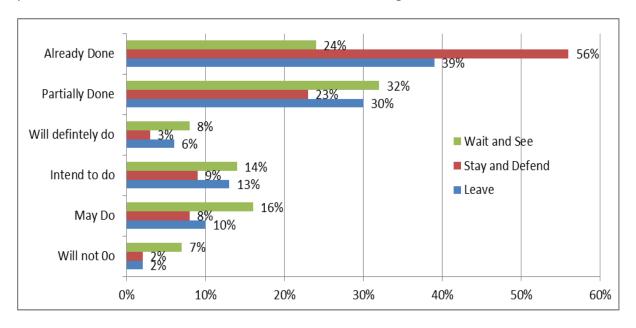


Figure 3.15. Horizontal bar chart: Responses to: 'Prepared a plan involving all members of the household for what to do when there is bushfire burning that might threaten your home?'

Note that of 584 householders, seven householders who intended to Leave plus two householders who intended to Wait and See chose the option indicating that they would never be in this situation because they would have left the day before on the basis of the weather predictions. The nine householders who intended to leave early on the sole basis of weather forecasts account for 1.5% of all householders (584), and 2% of those who do not intend to Stay and Defend (445).

3.6.3 Long-term preparation for bushfire survival

Householders completed a 21-item Bushfire Survival Preparations Checklist (McLennan and Elliott 2011). The Checklist comprises four sub-scales: (a) active defence; (b) reducing house vulnerability; (c) reducing threat to house; (d) leaving safely (see Appendix B).

3.6.3.1 Active defence

There are eight checklist items:

Installed a pump that does not depend on mains power (i.e. petrol or diesel-driven, or electrically powered by a generator)

Installed a water tank for firefighting purposes and/or to supply a sprinkler system

Prepared a kit of protective clothing and gear (boots, smoke masks, goggles) for members of the household

Obtained and prepared firefighting equipment such as ladders, buckets and mops

Obtained and prepared hoses for firefighting, long enough to reach all parts of the house

Installed a sprinkler system on or around the house

Obtained a battery-powered radio with fresh batteries

Installed a fire shelter or bunker in which to take shelter if necessary

Possible responses are:

Already done (6); Partially done (5); Will definitely do (4); Intend to do (3); May do (2); Will not do (1); Not applicable (0). Total scores can range from 8 to 48.

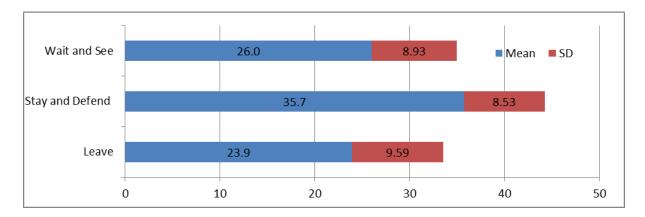


Figure 3.16. Preparations for active defence total scores: means and standard deviations.

The mean scores of householders intending to Stay and Defend were significantly higher than those of householders intending to Leave (d = 1.3) and intending to Wait and See (d = 1.1). The difference in mean scores for householders intending to Wait and See and householders intending to Leave was small (d = 0.23) and not significant.

3.6.3.2 Reduce house vulnerability

There are five checklist items:

Enclosed under-floor spaces to prevent embers or flames from entering

Covered gaps and vents to reduce the risk of embers entering the house through openings under the roof or in walls

Installed seals and/or draft protectors around windows and doors

Installed roof gutter protection

Installed shutters for windows

Possible responses are:

Already done (6); Partially done (5); Will definitely do (4); Intend to do (3); May do (2); Will not do (1); Not applicable (0). Total scores can range from 5 to 30.

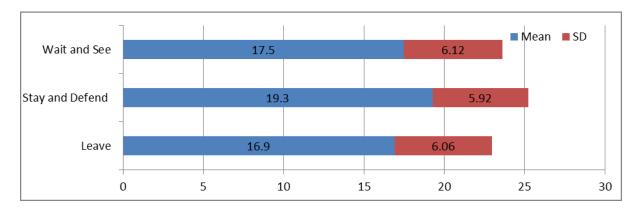


Figure 3.17. Preparations to reduce house vulnerability total scores: means and standard deviations.

The means scores for householders intending to Stay and Defend were significantly higher than those of householders intending to Leave (d = 0.41). Neither of the other two mean differences were significant.

3.6.3.3 Reduce threat to house

There are four checklist items:

Cleared leaves, twigs, long grass from around the house to a distance of 20–30 m

Removed bushes close to the house and cut back overhanging tree branches

Moved combustible material such as firewood, garden furniture, lawn mower and fuel, paint tins, old cars or tyres away from the house

Used landscaping, tree planting, or the layout of the garden to protect the house from bushfires

Possible responses are:

Already done (6); Partially done (5); Will definitely do (4); Intend to do (3); May do (2); Will not do (1); Not applicable (0). Total scores can range from 4 to 24.

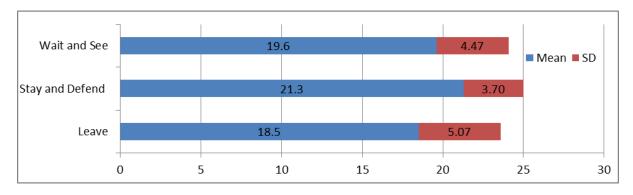


Figure 3.18. Preparations for reducing threat to house total scores: means and standard deviations.

The mean scores of householders intending to Stay and Defend were significantly higher than those of householders intending to Leave (d = 0.64) and those intending to Wait and See (d = 0.43). The difference in means scores for householders intending to Wait and See and householders intending to Leave was small (d = 0.22) and not significant.

3.6.3.4 Leave safely

There are four checklist items:

Planned what to do if you decide to leave your home because of the risk of a bushfire (e.g. where to go and stay, the route, what to take, what to do about pets and livestock)

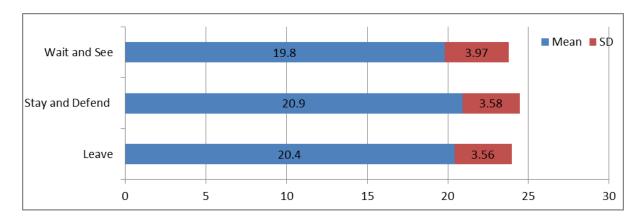
Identified a location nearby where you, or other family members, could shelter safely if you had to leave your home because of a bushfire

Checked that you have enough home contents and building insurance

Stored important documents and possessions safely elsewhere, or in a fire-proof location on site, or have them packed ready to take with you when you leave

Possible responses are:

Already done (6); Partially done (5); Will definitely do (4); Intend to do (3); May do (2); Will not do (1); Not applicable (0). Total scores can range from 4 to 24.



Total Preparations For leaving Score

Figure 3.19. Preparations for leaving safely total scores: means and standard deviations.

The mean scores for the three groups of householders did not differ significantly. This is consistent with previous findings that householders who do not intend to Stay and Defend nonetheless are mostly *not* well prepared to leave safely (McLennan *et al.* 2011; McLennan *et al.* 2012).

3.6.3.5 Bushfire preparation actions completed

3.6.3.5.1: Active defence

Table 3.10 Percentage of householders in each Intention group who reported completing active property defence preparation actions (n = number of householders completing the action; N = total number of householders in the Intention group)

| Action | Leave | Stay and defend | Wait and See | All |
|---|-----------|--------------------|-----------------|-----------|
| | % (n/N) | % (n/N) | % (n/N) | % (n/N) |
| Installed a pump that does not depend | 20% | 59% | 19% | 30% |
| on mains electric power (i.e. petrol, diesel-driven or electrically powered by a generator) | (47/234) | (78/132) | (29/156) | (154/522) |
| Installed a water tank for firefighting | 32% | 68% | 30% | 40% |
| purposes and/or to supply a sprinkler system | (78/247) | (89/131) | (49/162) | (216/540) |
| Obtained and prepared firefighting | 27% | 75% | 35% | 41% |
| equipment such as ladders, buckets and mops | (68/249) | (100/134) | (58/166) | (226/549) |
| Prepared a kit of protective clothing and | 21% | 63% | 22% | 32% |
| gear (boots, smoke masks, goggles) for members of the household | (55/258) | (83/131) | (37/166) | (175/555) |
| Obtained and prepared hoses for | 41% | 75% | 49% | 53% |
| firefighting, long enough to reach all parts of the house | (104/251) | (100/134) | (82/169) | (286/554) |
| Installed a sprinkler system on or around | 8% | 34% | 14% | 16% |
| the house | (21/249) | (44/129) | (22/161) | (87/539) |
| Obtained a battery-powered radio with | 53% | 76% | 51% | 57% |
| fresh batteries | (137/261) | (99/131) | (85/167) | (321/559) |
| Installed or constructed a fire shelter or | 2% | 12% | 4% | 5% |
| bunker in which to take refuge if necessary | (4/223) | (15/124) | (6/144) | (25/491) |

3.6.3.5.2 Reduce danger to house

Table 3.11: Percentage of householders in each Intention group who reported completing preparation actions to reduce danger to the house (n = number of householders completing the action; N = total number of householders in the Intention group)

| Action | Leave | Stay and defend | Wait and See | All |
|--|-----------|-----------------|-----------------|-----------|
| | % (n/N) | % (n/N) | % (n/N) | % (n/N) |
| Removed bushes close to the house and | 39% | 68% | 42% | 47% |
| cut back overhanging tree branches | (100/255) | (90/132) | (68/163) | (258/550) |
| Cleared leaves, twigs, long grass from | 46% | 63% | 50% | 51% |
| around the house to a distance of 20–30 m | (113/248) | (82/130) | (79/159) | (274/541) |
| Moved combustible material such as | 46% | 69% | 49% | 52% |
| firewood, garden furniture, lawn mower and fuel, paint tins, old cars or tyres | (113/248) | (91/132) | (79/162) | (283/542) |
| away from the house | | | | |
| Used landscaping, tree planting, or the | 29% | 59% | 39% | 39% |
| layout of the garden to protect the house from bushfires | (70/245) | 76/130) | (60/156) | (206/531) |

3.6.3.5.3 Reduce house vulnerability

Table 3.12: Percentage of householders in each Intention group who reported completing preparation actions to reduce house vulnerability (n = number of householders completing the action; N = total number of householders in the Intention group)

| Action | Leave | Stay and defend | Wait and See | All |
|---|----------|-----------------|-----------------|-----------|
| | % (n/N) | % (n/N) | % (n/N) | % (n/N) |
| Installed seals and/or draft protectors | 32% | 46% | 52% | 35% |
| around windows and doors | (80/228) | (59/128) | (52/161) | (191/543) |
| Covered gaps and vents to reduce the | 30% | 48% | 30% | 34% |
| risk of embers entering the house through openings under the roof or in walls | (69/228) | (60/125) | (45/152) | (174/505) |
| Installed shutters for windows | 1% | 3% | 3% | 2% |
| | 3/239 | (4/123) | (5/155) | (12/517) |
| Enclosed under-floor spaces to prevent | 48% | 62% | 60% | 55% |
| embers or flames entering | (97/204) | (63/101) | (77/129) | (237/4340 |
| Installed roof gutter protection | 26% | 40% | 26% | 32% |
| | (65/246) | (63/101) | (39/152) | (167/523) |

3.6.3.5.4 Leave safely

Table 3.11: Percentage of householders in each Intention group who reported completing preparation actions to leave safely (n = number of householders completing the action; N = total number of householders in the Intention group)

| Action | Leave | Stay and defend | Wait and See | All |
|---|------------------|------------------|-----------------|------------------|
| | % (n/N) | % (n/N) | % (n/N) | % (n/N) |
| Planned what to do if you decided to leave your home because of the risk of a bushfire, e.g. where to go and stay, the route to take, what to do about pets and livestock | 52% (138/266) | 62% (74/120) | 41% 68/166) | 51% (280/552) |
| Identified a location nearby where you, or other family members, could shelter safely if you had to leave your home because of a bushfire | 61% (162/264) | 74% (93/125) | 61% (99/163) | 64% (354/552) |
| Checked that you have enough home contents and building insurance | 87% (232/268) | 89% (118/133) | 86% (143/ | 87% (493/568) |
| Stored important documents and possessions safely elsewhere, or in a fire-proof location on site, or have them packed ready to take with you when you leave | 40% (108)/267) | 38% (51/133) | 37% (62/169) | 39% (221/569) |

3.6.3.6 Perceived extent to which preparations for a bushfire would protect the house A much higher percentage of householders intending to Stay and Defend rated the extent to

which their preparation would protect the house as 'Extremely high' or 'High' (V = 0.39).

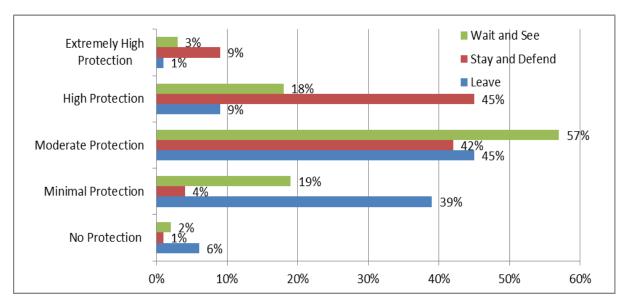


Figure 3.20. Horizontal bar chart: Responses to: 'Please rate the extent to which your preparations for a bushfire would protect your house if a bushfire did threaten your property'.

3.6.3.7 Preparations on a day of predicted Severe or Extreme bushfire danger

Householders completed a seven-item checklist of possible preparatory actions on a day of Severe or Extreme bushfire danger. The items were:

Fill containers (buckets, bins, drums) with water and place these in or around the house

Clear leaves from gutters and roof surfaces

Fill some containers with emergency drinking water

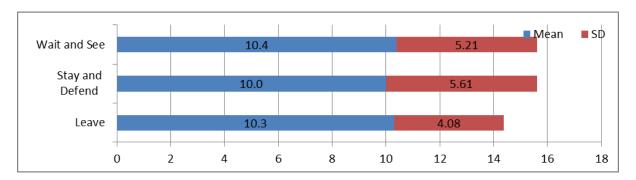
Make arrangements for pets or livestock to be safe

Park the car facing the way to drive away quickly; garage doors open, gates unlocked (even if the plan is to defend)

Prepare a kit to take with you if you decide to leave because of the threat of a bushfire (or in case defence fails): water, food, change of clothes, toiletries, valuables

Ensure mobile phone is kept fully charged (and has sufficient credit for making calls if pre-paid)

Response options were: Will definitely do (4); Intend to do (3); May do (2); Will not do (1); Not applicable (0). Total preparations on a high fire danger day scores could range from 7 to 28.



Total Fire Danger Day Preparation Score

Figure 3.21. Preparations for a day of Severe or Extreme fire danger total scores: means and standard deviations.

The mean scores for the three groups of householders did not differ significantly.

3.6.3.8 Strength of commitment to intending to Leave, or to Stay and Defend, or to Wait and See, and bushfire survival planning and preparation actions

Strength of Commitment to Intention scores (see Section 3.1.2: Strength of Commitment = Likelihood plus Importance, score range 2–10) were correlated with having prepared a household plan for what to do on a day of predicted Extreme fire danger.

- Intend to Leave: $r_{pb} = 0.16$;
- Intend to Stay and Defend: $r_{pb} = .27$;
- Intend to Wait and See: $r_{pb} = 0.16$.

All three correlation values are small.

Strength of Commitment to Intention scores were correlated with having prepared a household plan for what to do following a bushfire threat warning.

- Intend to Leave: $r_{pb} = 0.13$;
- Intend to Stay and Defend: r_{pb} = 0.28;

• Intend to Wait and See: $r_{pb} = 0.06$.

The correlation values are small for those householders intending to Leave or to Stay and Defend, and the value for those intending to Wait and See is not meaningful.

(Note: r_{pb} is a point-biserial correlation; it can be understood as being equivalent to a standard [Pearson] correlation coefficient).

Strength of Commitment to Intention scores were correlated with the number of bushfire survival preparation actions undertaken for each of the four Bushfire Survival Preparations Checklist sub-scales (see Section 3.6.3): Active defence (score range 0–9); Reduce house vulnerability (score range 0-4); Reduce threat to house (score range 0–4); Leave safely (score range 0–4). Table 3.12 shows that, overall, Strength of Commitment to Intention was **not** related strongly to (reported) bushfire survival preparation actions.

Table 3.12. Correlations between strength of Commitment to Intention scores and number of bushfire survival preparation actions (values in bold type are sufficiently large to be meaningful)

| Prepare: for | Prepare: to | Prepare: to | Prepare: to |
|----------------|--|---|--|
| active defence | reduce house | reduce threat to | leave safely |
| (scores 0–9) | vulnerability | house (scores 0– | (scores 0–4) |
| | (scores 0–4) | 4) | |
| | | | |
| -0.01 | -0.03 | 0.19 | 0.15 |
| 0.35 | 0.10 | 0.22 | 0.10 |
| | | | |
| 0.18 | 0.04 | 0.05 | 0.09 |
| 0 | octive defence scores 0–9) -0.01 | reduce house vulnerability (scores 0–4) -0.01 -0.03 0.35 0.10 | reduce house reduce threat to house (scores 0–9) (scores 0–4) (scores 0–4) (0.01 (0.19) (0.19) (0.10) (0.22) |

Using generally accepted conventions, there are four, small, meaningful correlations between strength of Commitment to Intention and number of bushfire survival preparation actions. For those intending to Stay and Defend, there was a medium correlation with the number of actions taken to prepare for active defence. This indicates, for many householders, a disconnect between the intention and taking the actions necessary to enable the intention to be enacted successfully.

3.7 Demographic Characteristics of Householders

3.7.1 *Gender*

Of the 584 survey respondents, 273 were males (47%) and 310 were females (53%), with one unspecified. Men were more likely to intend to Stay and Defend, women were more likely to intend to Leave as soon as possible (V = 0.28). Men and women were almost equally likely to intend to Wait and See (Table 3.13).

Table 3.13. Gender by intention

| Gender | Intention: Leave | Intention: Stay and Defend | Intention: Wait and See |
|--------|------------------|-------------------------------|----------------------------|
| Male | 35% (96) | 65% (89) | 51.% (88) |
| Female | 65% (177) | 35% (49) | 49% (84) |

3.7.2 Age

The mean age of men was 56.6 years (SD = 13.42); the mean age of women was 53.0 years (SD = 13.93).

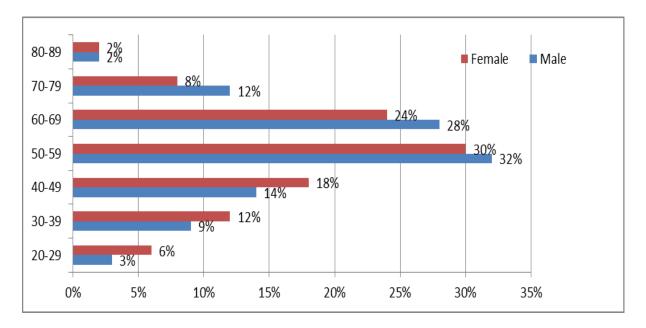


Figure 3.22. Horizontal bar chart: age distribution percentage in 10-year intervals.

Table 3.14. Age and intention: means and standard deviations, men and women

| | Intend to Leave as | Intend to Stay and | Intend to Wait and |
|-------|--------------------|--------------------|--------------------|
| | soon as possible | Defend | See |
| Men | Mean = 55.9 | Mean = 55.2 | Mean = 58.8 |
| | SD = 14.39 | SD = 12.36 | SD = 13.25 |
| | n = 92 | n = 87 | n = 86 |
| Women | Mean = 51.4 | Mean = 55.2 | Mean = 55.3 |
| | SD = 14.79 | SD = 11.82 | SD = 12.73 |
| | n = 174 | n = 46 | n = 81 |

Apparent differences in mean age are small ($d \le 0.28$) and not significant.

3.7.3 Marital status

Table 3.15. Marital status and intention

| Marital status | Intend to Leave as | Intend to Stay and | Intend to Wait and |
|---------------------|--------------------|--------------------|--------------------|
| | soon as possible | Defend | See |
| Married, de facto | 71% (193) | 82% (112) | 73% (124) |
| Separated, divorced | 11% (30) | 9% (12) | 13% (22) |
| Widowed | 4% (11) | 1% (2) | 5% (9) |
| Single | 14% (37) | 8% (11) | 9% (15) |
| Total | 100% (271) | 100% (137) | 100% (170) |

There are no significant differences in marital status patterns across the three groups of householders.

3.7.4 Household size: adults

Table 3.16.

| Number of adults | Intend to Leave as | Intend to Stay and | Intend to Wait and |
|----------------------|--------------------|--------------------|--------------------|
| (>18 years) resident | soon as possible | Defend | See |
| One | 22% (58) | 13% (17) | 20% (33) |
| Two | 62% (163) | 65% (88) | 64% (1020 |
| Three | 13% (33) | 15% (20) | 12% (20) |
| Four | 2% (6) | 6% (8) | 2% (4) |
| More than four | 1% (3) | 1% (2) | 2% (3) |
| Total | 100% (263) | 100% (135) | 100% (162) |

There are no significant differences in adult household size patterns across the three groups of householders.

3.7.5 Household size: dependent children

Table 3.17.

| Number of | Intend to Leave as | Intend to Stay and | Intend to Wait and |
|----------------------------|--------------------|--------------------|--------------------|
| dependent children | soon as possible | Defend | See |
| resident | | | |
| None | 71% (193) | 77% (106) | 80% (138) |
| | | | |
| <5 years old | 10% (28) | 6% (8) | 3% (6) |
| 5–12 years old | 17% (46) | 11% (15) | 6% (10) |
| 13–17 years old | 11% (31) | 12% (17) | 13% (23) |
| Total number of households | 271 | 138 | 172 |

There are no significant differences in percentage of dependent children across the three groups of householders.

3.7.6 Households with a disabled member

Intend to Leave as soon as possible: n = 39; 14.3%

Intend to Stay and Defend: n = 7; 5.0%

Intend to Wait and See n = 28; 16.3%

Households where the intention was to Stay and Defend were somewhat **less** likely to have a disabled member (V = 0.12).

3.7.7 Length of time resident in the community

Over half of the householders had lived in their communities for more than 10 years. More householders intending to Stay and Defend had lived in the community for 20 or more years (V = 0.29).

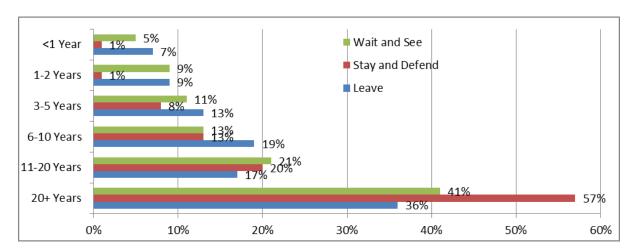


Figure 3.23. Horizontal bar chart: Responses to: 'How long have you lived in this community?'

3.7.8 Employment status

Table 3.18.

| Intend to | Intend to | Intend to |
|---------------|---|---|
| Leave as soon | Stay and | Wait and |
| as possible | Defend | See |
| <1% (1) | <1% (1) | <1% (1) |
| 4% (10) | 8% (12) | 3% (5) |
| 4% (10) | 5% (7) | 5% (8) |
| 7% (18) | 11% (15) | 8% (13) |
| 32% (87) | 35% (49) | 28% (49) |
| 19% (51) | 15% (21) | 17% (29) |
| 1% (4) | 3% (4) | <1% (1) |
| 7% (20) | 4% (5) | 6% (10) |
| 4% (12) | 3% (4) | 2% (3) |
| 28% (75) | 22% (31) | 35% (60) |
| | | |
| 272 | 139 | 172 |
| | | |
| | | |
| | Leave as soon as possible <1% (1) 4% (10) 4% (10) 7% (18) 32% (87) 19% (51) 1% (4) 7% (20) 4% (12) 28% (75) | Leave as soon as possible Stay and Defend <1% (1) |

There are no significant differences in employment status patterns across the three groups of householders.

4. Discussion

4.1 Summary

Of the 584 householders who responded to the hypothetical bushfire threat warning scenario, 47% intended to Leave as soon as possible, 24% intended to Stay and Defend, and 29% intended to Wait and See what developed before committing to a final action of leaving or staying and defending (Section 3.1).

The three groups of householders differed on their level of commitment to their expressed intentions: householders who intended to Leave or to Stay and Defend evidenced a stronger level of commitment to acting on their intention under an actual bushfire threat compared with those who intended to Wait and See (Sections 3.1.1, 3.1.2).

Different psychological processes apparently determined the strength of each intention: (a) for householders intending to Leave as soon as possible, the predictors of strength of intention were associated with safety; (b) for householders intending to Stay and Defend, the predictors were associated with successful defence; (c) for those householders intending to Wait and See, the predictors were associated with making the right choice (Section 3.1.3).

Reasons given by householders for rejecting alternative choices were consistent with the above interpretations of the analyses of predictors of strengths of intentions. Most of those who intended to Leave saw this as the safest option: staying and defending was seen as being too risky. Most of those who intended to Stay and Defend did not want to leave because they were committed to saving their 'property'. Most of those who intended to Wait and See did not perceive the risks associated with waiting to see to be great, but they did not want to leave unnecessarily and risk losing the house when they could have saved it, or be exposed to unnecessary danger when leaving, but they did not want to be menaced by a serious bushfire (Section 3.1.4).

On seven indicators of bushfire risk or threat perception: (a) those intending to Leave were somewhat more likely to perceive their risk to be *higher* on two indicators—house vulnerability, and low protection afforded by house construction; (b) those intending to Wait and See were somewhat more likely to perceive their risk to be *lower* on two indicators—expected optimistic outcome of a threat warning, and longer anticipated time window for safe evacuation (Section 3.1.5).

In relation to householders' anticipations about what it might be like to act upon their intentions: (a) anticipations of those intending to Leave were mostly negative, and these anticipated negative experiences were mostly associated with losing the house and dangers involved in leaving; (b) for householders intending to Stay and Defend, more than half the anticipated experiences were about dangers involved in staying and defending; (c) the anticipated experiences described by those intending to Wait and See were more similar to those described by those intending to Stay and Defend than those described by those intending to Leave (Section 3.1.6).

Compared with those intending to Leave and those intending to Wait and See, householders intending to Stay and Defend reported a lower mean level of Emotional Reactivity, and higher mean levels of Sense of Community and Attachment to Place. These findings are consistent with other indications noted above that many householders intending to Stay and Defend perceive protecting their property (and perhaps that of their neighbours) as having a higher priority than ensuring their own personal safety (Section 3.2).

Compared with those intending to Leave or Wait and See, a greater percentage of householders intending to Stay and Defend reported having some form of bushfire-related training or knowledge (Sections 3.3.2, 3.3.3).

Householders residing on farms or in other isolated dwellings in rural settings were least likely to intend to Wait and See; householders residing in suburban settings near to bushland were least likely to intend to Stay and Defend (Section 3.4).

A little more than one-third (36%) of all householders reported having prepared a household plan for days of predicted extreme or worse fire danger. For those intending to Leave, the figure was 35%, for those intending to Stay and Defend, 56%, and for those intending to Wait and See, 24% (Section 3.6.1).

A little more than one-third (38%) of all householders reported having prepared a household plan for what to do following a bushfire threat warning. For those intending to Leave, the figure was 39%, for those intending to Stay and Defend, 56%, and for those intending to Wait and See, 24%. Only 2% of those householders not intending to Stay and Defend reported that they would leave early on the basis of a fire danger weather prediction (Section 3.6.2).

Householders intending to Stay and Defend reported higher overall levels of bushfire property protection actions and intentions. However, even for these householders, the number of property preparation actions reportedly undertaken seemed low. Those intending to Leave had, on average, undertaken no more preparation actions to leave safely than those intending to Stay and Defend or to Wait and See (Section 3.6.3).

Strength of Commitment to Intention was only weakly related to: (a) having a household plan for what to do on a day of predicted extreme fire danger; (b) having a household plan for what to do following a bushfire threat warning; and(c) the number household bushfire preparation activities undertaken (Section 3.6.3.8).

There were few meaningful differences among the three groups of householders on demographic characteristics. Men were more likely to intend to Stay and Defend, women were more likely to intend to Leave; households intending to Stay and Defend were less likely to have a member with a disability; householders intending to Stay and Defend were more likely to have resided in their local community for 20 years or more (Section 3.7).

4.2 Potential Limitations

Our reliance on householders' stated intentions may be criticised. We have no impregnable defence against an assertion that there is no reason to believe that householders will, in fact, do as they said they intended under actual bushfire threat. Whittaker and Handmer (2010), for example, argued that the gap between what residents say they will do on a day of extreme fire danger in relation to leaving early and what they actually do represents a serious challenge to agencies. However, in our study, we did not simply ask residents if they intended to leave early on a day of extreme fire danger. We presented a hypothetical bushfire threat scenario and asked which of three options (Leave, Stay and Defend, or Wait and See) the householder believed he or she would most likely choose to do under such circumstances. It is interesting that 29% chose the Wait and See option given that community bushfire safety information provided to households by fire agencies tells residents bluntly **not** to Wait and See. If these householders were merely reporting intentions that they believed were socially acceptable, it seems unlikely that so many would confess such a roundly condemned intention. There is evidence from the social psychology research literature that stated intentions are good predictors of behaviour provided that there are no situational incentives or social pressures to endorse a particular intention (e.g. Sheeran 2003). In short, we suggest that while there will always be some uncertainty about the strength of the link between a given stated intention and a specific future action, there is no reason to assume that there will be no link. As discussed in Section 1.4, interviews with householders impacted by the 2009 Victorian bushfires indicated that the most important determinant of what a householder did under threat was his or her prior intentions or plans in the event of a bushfire (McLennan et al. 2011; McLennan et al. 2012).

Our sample size was smaller than desirable. We expected between 800 and 1,000 respondents and our total of 584 fell short of this target. Anecdotal evidence suggests that the timing of the survey, while unavoidable owing to a tight budget and project deadline, was singularly unfortunate in that it coincided (February to May 2012) with storms, heavy rains and floods across many of the communities surveyed. As one householder remarked in a phone call to the first author in March 2012: "Jeez mate, nobody up here gives a rat's about bushfires. We are all trying to keep our heads above the flood waters". The practical effect of our smaller-than-desired sample size is that we may have failed to detect some important differences among our groups of householders and some important associations among factors.

It should be noted that our sample of householders is unlikely to be truly representative of residents in the communities surveyed in some important respects. Overall, our respondents are almost certainly more engaged with issues of bushfire threat and safety than many of their neighbours. This is because of the methodology employed in which, unlike a telephone or individually addressed postal questionnaire survey, participating required motivation to actively 'opt-in' to the study by typing or pasting a link into an internet search engine, or telephoning or emailing the researchers to request a questionnaire. One likely effect of this is that the overall level of bushfire readiness, planning and preparation in the communities studied is probably appreciably lower than what we have described in the report. However, the probable under-representation of householders who are not very engaged with issues of bushfire safety is unlikely to invalidate our general conclusions about the psychological processes involved in determining intentions to Leave, or to Stay and Defend, or to Wait and See. In fact, 'restriction of the range' issues (with disengaged residents being under-represented) are likely to have weakened at least some of the differences and associations we did detect.

4.3 Conclusions

The aim of the study was to improve understanding of why householders intend to either: (a) Leave as soon as possible, or (b) Stay and Defend their home, or (c) Wait and See what develops before committing to a final action following a bushfire threat warning, and our main conclusion is that different psychological processes drive each of the three householder intention choices.

Those whose intention is to **Leave** are motivated mostly by concerns about safety: their own and that of members of their family. They perceive staying and defending to be too risky. Following a bushfire threat warning, they are likely to experience anxiety about: (a) their house being destroyed; and (b) dangers while evacuating. These two sources of anxiety are likely to inhibit some of these householders from leaving in a timely manner. Very few (approximately 2%) are likely to leave solely on the basis of an extreme fire danger weather prediction. Despite concerns about safety, only a little more than one-third reported having planned what to do on a day of extreme fire danger, or what to do if a bushfire threat warning was received.

Those whose intention is to **Stay and Defend** are motivated mostly by: (a) the desire to protect their property (defined broadly as home, contents, possessions, pets/livestock, and

for some their neighbours); and (b) their confidence in their ability to do so. The desire to protect their possessions is given a higher priority than ensuring their own safety. Bushfire 'survival' probably does not resonate for them: they know that staying and defending entails some risk. A little less than 60% reported having planned what to do on a day of extreme fire danger, or what to do if a bushfire threat warning was received.

Those whose intention is to **Wait and See** are motivated mostly by concern not to make the wrong decision under conditions of uncertainty: (a) leaving unnecessarily and losing the house, being exposed to danger while evacuating, experiencing the inconvenience of evacuating; or (b) staying and being exposed to danger from a serious fire threat. They perceive their risk of being impacted by a bushfire to be relatively low and most believe that if a threat developed, they would have the time and the means to leave late safely. Seven per cent of these householders believe that authorities will warn them when it is time to leave or will protect them from any serious threat. One-quarter reported having planned what to do on a day of extreme fire danger, or what to do if a bushfire threat warning was received. Overall, the level of engagement with bushfire safety is somewhat lower than for the other two groups of householders.

4.4 Possible Implications

The findings suggest that community bushfire safety messages may be more effective than at present in raising householders' levels of (a) bushfire readiness, (b) planning and (c) preparation if they are tailored and targeted to influence separately each of the three intention-type households identified. For those householders whose intention is to leave before being threatened by a bushfire, the challenge is how to convert concern about bushfire threat into household-appropriate planning and preparation.

Most householders who intend to leave probably do not need general fear-arousing messages about how dangerous bushfires are. Given the apparent importance for many of *anxiety* about losing the house and about danger when leaving, messages that:

(a) emphasise low-cost (money, time, effort, inconvenience) actions that mitigate the probability of their house being destroyed in their absence, plus messages that

(b) emphasise the 'how to' of planning and preparing for safe evacuation may be more effective.

It seems unlikely that general messages that focus on bushfire survival will greatly influence householders intent on staying and protecting their assets. What is probably needed is more effective ways of influencing these householders to undertake realistic risk assessments of their likelihood of success under different fire danger conditions and to engage in worst-case thinking in relation to their house, family and individual situation so as to identify vulnerabilities in the house–householder–defence 'system'.

Most householders intending to wait and see do so primarily because they perceive their risk from bushfire to be low. Being badgered by agency messages to 'don't wait and see' is unlikely to be effective. Perhaps a more achievable aim is to seek to convert them into conditional 'intend to leave-ers' by a message of 'Don't plan to wait and just hope for the best—decide what is your trigger to leave safely and prepare for it'. There is a more extended discussion of the reasons why householders wait and see following an initial bushfire warning in McLennan and Elliott (2012)

4.5 Concluding Comment

This report concludes the program of Bushfire CRC research by the La Trobe University School of Psychological Science team. Over the life of the Bushfire CRC and its Extension, a great deal has been learned about community bushfire safety problems and issues—especially (a) from the work by *Program C* (Community Self-sufficiency for Fire Safety) researchers under the leadership of Professor John Handmer of RMIT University as part of the original Bushfire CRC (see Handmer and Haynes 2008 and Program C Fire Notes [www.bushfirecrc.com/publications]) and (b) Bushfire CRC research following the 2009 Victorian bushfires (McLennan et al. 2011, 2012; Whittaker et al. 2009, 2010). It seems to us that future research efforts should be directed towards devising community- and community-group-focussed interventions aimed at changing behaviour, rather than continuing to study problems. The interventions need to have sufficient resources allocated from the very beginning to permit sound evaluation of their effectiveness and to guide improvement. There is a mantra generally attributed to management guru Peter Drucker: "If you can't measure it, you can't manage it, and if you can't manage it, you can't improve it". This is undoubtedly true for community bushfire safety improvement endeavours.

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Part 2: Technical Supplement

3.1.1 Likelihood of acting on the intention

$$\chi^2$$
 (n = 583; df = 10) = 96.70, p < 0.001

3.1.2 Relative strength of commitment to each intention

Leave: mean = 8.61, SD = 1.36

Stay and Defend: mean = 8.45, SD = 2.06

Wait and See: mean = 6.12, 1.62

Leave vs Stay and Defend: t (409) = 0.096, ns

Leave vs Wait and See: t (442) = 17.1, p < 0.001

Stay and Defend vs Wait and See: t (309) = 12.05, p < 0.001

3.1.3 Determinants of strength of commitment to a particular intention to respond to a bushfire threat warning

See Appendix A

3.1.5.2 Bushfire risk perceptions: Vulnerability of the house

$$\chi^2$$
 (n = 584; df = 8) = 22.53, p = 0.004

3.1.5.4 Bushfire risk perceptions: Resistance of house construction material to bushfire attack

$$\chi^2$$
 (n = 584; df = 8) = 46.86, p < 0.001

3.1.5.6 Bushfire risk perceptions: Optimistic threat warning outcome expectations

$$\chi^2$$
 (n = 584; df = 10) = 29.09, p < 0.001

3.1.5.7 Bushfire risk perceptions: Anticipated time window to leave safely

$$\chi^2$$
 (n = 584; df = 12) = 74.77, p < 0.001

3.2.1 Emotional reactivity to threat

Leave: mean = 5.61, SD = 0.91

Stay and Defend: mean = 4.88, SD = 1.30

Wait and See: mean = 5.18, SD = 0.79

Leave vs Stay and Defend: t (409) = 5.97, p < 0.001

Leave vs Wait and See: t (442) = 4.59, p < 0.001

Stay and Defend vs Wait and See: t (309) = 1.84, p = 0.067

3.2.2 Sense of community

Leave: mean = 7.55, SD = 1.53

Stay and Defend: mean = 8.09, SD = 1.46

Wait and See: mean = 7.72, SD = 1.40

Leave vs Stay and Defend: t (409) = 3.31, p < 0.001

Leave vs Wait and See: t (442) = 1.10, p = 0.272

Stay and Defend vs Wait and See: t (309) = 2.39, p = 0.017

3.2.3 Emotional attachment to home

Leave: mean = 7.43, SD = 1.65

Stay and Defend: mean = 7.88, SD = 1.62

Wait and See: mean = 7.49, SD = 1.76

Leave vs Stay and Defend: t (409) = 2.57, p = 0.011

Leave vs Wait and See: t (442) = 0.36, p = 0.719

Stay and Defend vs Wait and See: t (309) = 2.11, p = 0.036

3.3.1 Previous experiences of bushfire threat warnings

$$\chi^2$$
 (n = 414; df = 1) = 8.73, p = 0.003

$$\chi^2$$
 (n = 584; df = 2) = 100.05, $p < 0.001$

$$\chi^2$$
 (n = 584; df = 10) = 78.13, p < 0.001

3.3.3 Membership of Community Fireguard

$$\chi^2$$
 (n = 584; df = 10) = 37.80, p < 0.001

3.4 House location

$$\chi^2$$
 (n = 584; df = 8) = 25.70, p = 0.001

3.6.1 A household bushfire survival plan for a day of predicted extreme fire danger

$$\chi^2$$
 (n = 567; df = 10) = 48.23, p < 0.001

3.6.2 Planning for bushfire survival when there is a bushfire threat warning

$$\chi^2$$
 (n = 567; df = 12) = 45.92, p < 0.001

3.6.3.1 Active defence

$$F(2,454) = 64.20, p < 0.001$$

3.6.3.2 Reduce house vulnerability

$$F(2,370) = 4.88, p = 0.008$$

3.6.3.3 Reduce threat to house

$$F(4,486) = 15.31, p < 0.001$$

3.6.3.4 Leave safely

$$F(2,526) = 2.90, p = 0.06$$

3.6.3.6 Perceived extent to which preparations for a bushfire would protect the house χ^2 (n = 574; df = 10) = 134.08, p < 0.001

3.6.3.7 Preparations on a day of predicted Severe or Extreme bushfire danger F(2,350) = 0.23, p = 0.80

3.7.1 Gender and Intention

$$\chi^2$$
 (n = 584; df = 2) = 33.51, p < 0.001

3.7.6 Households with a disabled member

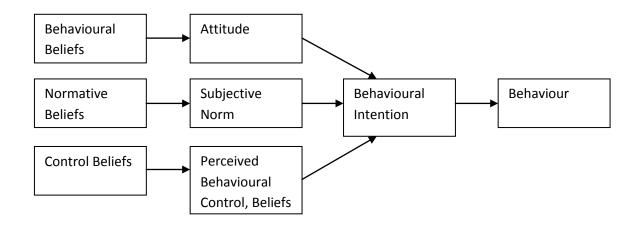
$$\chi^2$$
 (n = 584; df = 2) = 10.15, p = 0.006

3.7.7 Length of time resident in the community

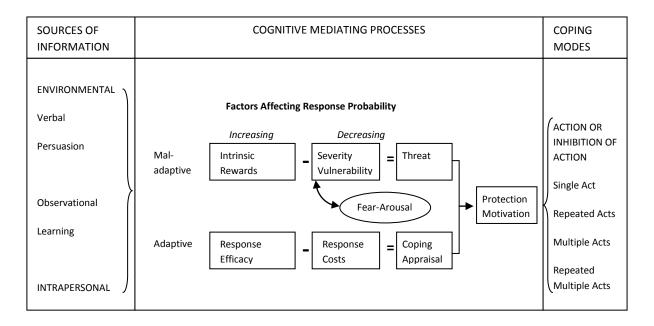
$$\chi^2$$
 (n = 584; df = 10) = 32.0, p < 0.001

Appendix A. Predictors of Strength of Commitment to Intentions

Theory of Planned Behaviour: Original Model



Protection Motivation Theory



Reproduced from Rogers (1983).

Theory Components and Corresponding Survey Questionnaire Items—'Leave' items

Behavioural Intentions (TPB and PMT)

How likely is it that you would decide to leave?

1 = Unlikely; 2 = Somewhat likely; 3 = Quite likely; 4 = Very likely; 5 = Extremely likely; 6 = Almost certain

I would leave no matter what the difficulties might be on the day.

1 = Unlikely; 2 = Somewhat likely; 3 = Quite likely; 4 = Very likely; 5 = Extremely likely; 6 = Almost certain

Attitude (TPB) and Response Efficacy (PMT)

I believe that leaving would be a safe option for ensuring my survival.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

In the situation described, leaving would be a safe option for most people.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Leaving would significantly improve my chances of survival.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Subjective Norms (TPB)

Those who are most important to me would prefer that I leave rather than stay and defend.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

I would want to follow the wishes of those who are most important to me.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Perceived Behavioural Control (TPB) and Self-Efficacy (PMT)

I am physically and mentally fit enough to leave in such situations.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

I am confident that I would be able to leave in this scenario.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Descriptive Norms (TPB)

Most people would leave in this scenario.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Most of my friends, family and neighbours would decide to leave, if they were faced with this scenario.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Moral Norms (TPB)

I believe I have a moral obligation to leave, in this type of scenario.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

I have a responsibility to be safe so as to ensure my family's well-being.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Self-identification (TPB)

I see myself as the type of person who avoids dangerous situations.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Anticipated Affect (TPB)

I would regret it if I decided to leave and my house was destroyed.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Self-determination (TPB)

The opinions and feelings of others would have little influence on my decision to leave or stay and defend under such circumstances.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

My decision to leave, or stay, or wait would be entirely my own.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Threat Severity (PMT)

Choosing to leave could result in serious injury.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

I believe that choosing to leave could result in death.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Threat Susceptibility (PMT)

How likely do you think it is that you could be seriously injured in the course of leaving? 1 = Unlikely; 2 = Somewhat likely; 3 = Quite likely; 4 = Very likely; 5 = Extremely likely; 6 = Almost certain

How likely do you think it is that you could die in the course of leaving?

1 = Unlikely; 2 = Somewhat likely; 3 = Quite likely; 4 = Very likely; 5 = Extremely likely; 6 = Almost certain

Action Cost (PMT)

Leaving would be difficult for me.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Action Reward (PMT)

People who are important to me would approve of the decision I made to leave.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Others respect those who make the decision to leave.

1 = Disagree strongly; 2 = Disagree; 3 = Not sure; 4 = Agree; 5 = Agree strongly

Stepwise regression analyses

Leave

Model summary

R = 0.610; $R^2 = 0.372$; F(6,267) = 95.32; p < 0.001

Statistics

M = mean predictor variable score; SD = score standard deviation

 $\boldsymbol{\beta}$ = standardized predictor variable regression coefficient

t = t-test statistic for the significance of β

| Predictor | Score | М | SD | β | t | р |
|---------------------------|-------|------|------|-------|-------|--------|
| | range | | | | | |
| | | | | | | |
| Attitude/Outcome-efficacy | 3–15 | 13.1 | 1.84 | 0.25 | 4.24 | <0.001 |
| Self-determination | 2–10 | 7.1 | 1.81 | 0.18 | 3.49 | 0.001 |
| Anticipated Affect | 1–5 | 2.3 | 1.03 | -0.17 | -3.18 | 0.002 |
| Subjective Norms | 2–10 | 8.6 | 1.34 | 0.17 | 2.87 | 0.004 |
| Perceived Behavioural | 2-10 | 8.6 | 1.11 | 0.16 | 2.85 | 0.005 |
| Control/Self-efficacy | | | | | | |
| Cost | 1–5 | 2.6 | 1.23 | -0.14 | -2.55 | 0.011 |
| | | | | | | |

Stay and Defend

Model summary

R = 0.557; $R^2 = .311$; F(2,138) = 31.10; p < 0.001

Statistics

M = mean predictor variable score; SD = score standard deviation

 β = standardized predictor variable regression coefficient

t = t-test statistic for the significance of β

| Predictor | Score | М | SD | β | t | р |
|---------------------------|-------|------|------|------|------|--------|
| | range | | | | | |
| | | | | | | |
| | | | | | | |
| Attitude/Outcome-efficacy | 4–20 | 19.6 | 2.90 | 0.39 | 5.11 | <0.001 |
| Self-determination | 2–10 | 6.7 | 1.98 | 0.29 | 3.79 | <0.001 |
| | | | | | | |

Wait and See

Model summary

$$R = 0.420; R^2 = 0.176; F(4,169) = 31.10; p < 0.001$$

Statistics

M = mean predictor variable score; SD = score standard deviation

 β = standardized predictor variable regression coefficient

t = t-test statistic for the significance of β

| Predictor | Score range | М | SD | β | t | p |
|------------------|----------------|-----|------|------|------|-------|
| | | | | | | |
| Subjective Norms | 1–5 | 2.8 | 0.90 | 0.22 | 3.11 | 0.002 |

| Self-determination | 2–10 | 5.6 | 1.82 | 0.21 | 2.99 | 0.003 |
|--------------------|------|-----|------|-------|------|-------|
| Anticipated Affect | 2–10 | 5.7 | 1.89 | -0.18 | 2.56 | 0.012 |
| Moral Norms | 1–5 | 2.5 | 1.02 | 0.16 | 2.29 | 0.023 |
| | | | | | | |

Appendix B. Long-Term Bushfire Survival Preparations Checklist

The construction and nature of the measure were described in McLennan and Elliott (2011).

There were 584 responses. An exploratory factor analysis was conducted to investigate inter-relationships among the 21 preparedness items. Four factors were identified: preparations for active defence; preparations to leave safely; preparations to reduce danger to the house; preparations to reduce vulnerability of the house. The items, grouped to represent the four factors, are in Table B.1. Householders reported their actions/intention in relation to each as:

6 = Already done; 5 = Partially done; 4 = Will definitely do; 3 = Intend to do; 2 = May do; 1 = Will not do; 7 = Not Applicable: treated as 'missing' and not included in the calculation of percentages.

Frequency tallies of responses to each item were undertaken, and reported as percentages in Table B.1. It is probably most instructive to look at the percentages in Response Categories 6 (Already done) and 1 (Will not do).

Table B.1. Responses to items in the Long-Term Bushfire Preparation Checklist: Percentages in each response category

Response categories: 6 = Already done; 5 = Partially done; 4 = Will definitely do; 3 = Intend to do; 2 = May do; 1 = Will not do; (7 = Not applicable: treated as 'missing' and not included in the calculation of percentages)

Percentage in each response category

| Items | 6 | 5 | 4 | 3 | 2 | 1 |
|--|----|----|---|----|----|----|
| | % | % | % | % | % | % |
| SCALE 1: ACTIVE HOUSE DEFENCE ($\alpha = 0.81$) ^a | | | | | | |
| Installed a pump that does not depend on mains electric power (i.e. petrol, diesel-driven, or electrically powered by a generator). N = 522 | 30 | 3 | 3 | 4 | 15 | 44 |
| Installed a water tank for firefighting purposes and/or to supply a sprinkler system. N = 540 | 40 | 4 | 2 | 6 | 13 | 36 |
| Obtained and prepared firefighting equipment such as ladders, buckets and mops. N = 549 | 41 | 21 | 5 | 6 | 13 | 15 |
| Prepared a kit of protective clothing and gear (boots, smoke masks, goggles) for members of the household. N = 555 | 32 | 14 | 6 | 11 | 23 | 14 |
| Obtained and prepared hoses for firefighting, long enough to reach all parts of the house. N = 554 | 52 | 15 | 3 | 7 | 8 | 15 |
| Installed a sprinkler system on or around the house. N = 539 | 16 | 9 | 2 | 7 | 19 | 47 |
| Obtained a battery-powered radio with fresh batteries. N = 559 | 57 | 6 | 7 | 14 | 10 | 6 |

| Installed or constructed a fire shelter or bunker in which to take refuge if necessary. N = 491 | 5 | 2 | 1 | 3 | 11 | 78 |
|--|----|----|----|----|----|----|
| SCALE 2: LEAVE SAFELY (α = 0.61) | | | | | | |
| Planned what to do if you decided to leave your home because of the risk of a bushfire, e.g. where to go and stay, the route to take, what to do about pets and livestock. N = 552 | 51 | 22 | 5 | 11 | 8 | 3 |
| Identified a location nearby where you, or other family members, could shelter safely if you had to leave your home because of a bushfire. N = 552 | 64 | 9 | 6 | 10 | 6 | 4 |
| Checked that you have enough home contents and building insurance. N = 568 | 87 | 4 | 3 | 3 | 2 | 1 |
| Stored important documents and possessions safely elsewhere, or in a fire-proof location on site, or have them packed ready to take with you when you leave. N = 569 | 39 | 25 | 14 | 11 | 9 | 2 |
| | | | | | | |
| SCALE 3: REDUCE DANGER TO HOUSE $(\alpha = 0.79)$ | | | | | | |
| Removed bushes close to the house and cut back overhanging tree branches. N = 550 | 47 | 28 | 4 | 7 | 8 | 7 |
| Cleared leaves, twigs, long grass from around the house to a distance of 20–30 m. N = 541 | 51 | 26 | 8 | 6 | 5 | 55 |
| Moved combustible material such as firewood, garden furniture, lawn | 52 | 20 | 13 | 7 | 5 | 4 |

| mower and fuel, paint tins, old cars or | | | | | | |
|--|-----------|------------|----|----|----|----|
| tyres away from the house. N = 542 | | | | | | |
| Used landscaping, tree planting, or the | 39 | 34 | 2 | 7 | 7 | 2 |
| layout of the garden to protect the | | | | | | |
| house from bushfires. N = 531 | | | | | | |
| | | | | | | |
| SCALE 4: REDUCE VULNERABILITY OF | | | | | | |
| HOUSE | | | | | | |
| $(\alpha = 0.69)$ | | | | | | |
| Installed seals and/or draft protectors | 35 | 19 | 5 | 9 | 16 | 16 |
| around windows and doors. N = 543 | | | | | | |
| Covered gaps and vents to reduce the | 35 | 16 | 10 | 10 | 16 | 13 |
| risk of embers entering the house | | | | | | |
| through openings under the roof or in | | | | | | |
| walls. N = 505 | | | | | | |
| Installed shutters for windows. N = 517 | 72 | 16 | 4 | 2 | 5 | 2 |
| Enclosed under-floor spaces to prevent | 55 | 12 | 4 | 7 | 12 | 11 |
| embers or flames entering. N = 434 | | | | | | |
| Installed roof gutter protection. N = | 29 | 11 | 5 | 12 | 20 | 23 |
| 523 | | | | | | |
| | | | | | | |
| ^a Internal consistency of the scale items a | as Cronba | ch's alpha | | 1 | 1 | 1 |

Appendix C. Survey Questionnaire

Community Intentions Bushfire Survey

Participant Information Statement

This project is funded by the Australasian Bushfire Cooperative Research Centre. It is being conducted by a research team from La Trobe University, Victoria.

The La Trobe University researchers comprise Glenn Elliott (03 9479 3704) and Jim McLennan (03 9479 5363).

The aim of the project is to gain a better understanding behind the reasons why people choose to stay and defend, leave early, or wait to see what develops in the face of an imminent bushfire threat. Your community has been identified by your state fire agency as a suitable locality for this research.

If you agree to participate in the research you will be asked to fill out an online (or paper-based) survey. In order to participate you must be aged 18 years or more and live in a location near to bushland. Only one member of the household should complete the survey. The survey should take approximately 20–30 minutes to complete. If you choose to complete the survey online, the software will allow you to save your session and return to it at a later stage if required.

Although there are no anticipated risks to participants, the survey does ask you to imagine a hypothetical bushfire scenario. If you are experiencing any negative effects of a previous bushfire experience, you may choose not to continue with the survey. If you are experiencing negative effects of a recent bushfire experience, help with personal issues is available from Lifeline, phone: 13 11 14, Mensline, phone: 1300 78 98 78, or Beyond Blue, www.beyondblue.org

The research will assist fire agencies to help communities to better prepare for bushfires in the future.

The findings from this project may be presented at seminars or conferences and may be published in reports to the Bushfire CRC and fire agencies, or in professional journals. If you wish to be informed of the outcomes of this research, please indicate by ticking the

appropriate box on the final page of the questionnaire (this page also provides details for entry into the prize draw).

In order to participate, you must be over 18 years of age. You have the right to withdraw from active participation in this project at anytime. Completion and submission of the survey will be taken to mean that you consented to participate. Because the survey is anonymous, it will not be possible for your data to be withdrawn subsequently. The anonymous research data you provided may be included in technical reports, presented at conferences and published in journals.

If you choose, you may enter into a draw to receive one of five \$100 vouchers. Entry for the draw means that your contact details go into another file, separate from your survey, so your survey always remains anonymous.

Any questions regarding this project may be directed to the project manager, Glenn Elliott, of the School of Psychological Science on (03) 9479 3704, or alternatively, e-mailed to g.elliott@latrobe.edu.au

If you have any complaints or queries that the investigator has not been able to answer to your satisfaction, you may contact the Secretary, Faculty Human Ethics Committee, Faculty of Science, Technology and Engineering, La Trobe University, Victoria, 3086 (ph: +61 3 9479 3698), email: k.collins@latrobe.edu.au. Please quote FHEC application reference number FHEC11/R86.

PART I: BACKGROUND FACTORS

Please respond to each question by ticking the circle that best shows your answer, or write down the requested information. **N.B. There are no wrong or right answers, we want to find out what <u>you</u> think. Please answer as honestly as possible.**

| Please | enter today's date: DD/MM | I /YY |
|---------|---------------------------|--------------|
| Tick to | show if you are: | |
| 0 | Male | |
| 0 | Female | |
| In wha | t year were you born? | |
| | ou born overseas? | |
| 0 | Yes | |
| \circ | No | |

What is your marital status? 0 Married \bigcirc De facto \bigcirc Separated but not divorced \bigcirc Divorced \bigcirc Widowed \bigcirc Single \bigcirc Decline to answer How many adults (18 years and older) normally reside at your house?

 \bigcirc

 \bigcirc

 \bigcirc

 \bigcirc

 \bigcirc

 \bigcirc

One

Two

Three

Four

More than four

Not applicable

| Tick to s | show if you have dependent children living with you (tick all that apply) |
|-----------|---|
| | No |
| | Yes (Aged under 5) |
| | Yes (Aged 5–12) |
| | Yes (Aged 13–17) |
| | Decline to answer |
| | |
| Does an | y member of the household have a disability? |
| | |
| 0 | Yes |
| 0 | No |
| \circ | Decline to answer |

What is your employment status? (tick all that apply) Farm owner with employees Farm owner with no employees Business owner with employees Business owner with no employees Employed full time Employed part time (or casual) Unemployed Home duties or carer Student Retired П Decline to answer

Other (please specify):

| 0 | Less than a year | | | | | |
|----------|---------------------|---------------|-------|-----------------------|-------|----------|
| 0 | 1–2 years | | | | | |
| 0 | 3–5 years | | | | | |
| 0 | 6–10 years | | | | | |
| 0 | 11–20 years | | | | | |
| 0 | More than 20 yea | ars | | | | |
| 0 | Not applicable | | | | | |
| Were y | ou born in this cor | nmunity? | | | | |
| 0 | Yes O | No | 0 | Not sure | 0 | N/A |
| If you v | vere born elsewhe | re, about wha | t yea | r did you move to thi | s cor | nmunity? |

How long have you lived in this community?

What training or experience have you had concerning bushfires? (tick one only)

| 0 | I am, or was previously, a member of a fire brigade | | | | | | |
|----------|---|---------|----------------------------------|---------|-------------------------------|--------------|-----------------|
| 0 | I have received some training about bushfires | | | | | | |
| 0 | | | rmal training b who have busl | | nave been taugh experience | nt about bu | ishfires from |
| 0 | I have not h | nad for | mal training b | out I ł | nave had experi | ence in figh | nting bushfires |
| 0 | I have had experience | - | _ | bout | bushfires, nor h | ave I had a | ny previous |
| 0 | Other train | ing or | experience re | levan | t to bushfires? | Please spe | cify: |
| | | | | | | | |
| | | | | | | | |
| Have yo | ou ever been | a mei | mber of a Con | nmur | nity Fireguard g | roup or sin | nilar? |
| | | | | | | | |
| 0 | Yes | 0 | No | 0 | Not sure | 0 | N/A |
| | | | | | | | |
| | | | | | | | |
| - | ou read any or ry rural or co | | | ushfi | re safety prepa | red by you | r State or |
| 0 | Yes | 0 | No | 0 | Not sure | 0 | N/A |
| | | | | | | | |
| | | | | | | | |
| Please (| enter your p | ostcod | le: | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Your house is located (tick one only):

| 0 | On a farm or other rural property |
|------------|---|
| 0 | In a small town or rural community, in a house within about 100 m of bushland (e.g. grass, scrub, forest) |
| 0 | In a city or large town, in a house within about 100 m of bushland (e.g. grass scrub, forest) |
| 0 | None of the above (please specify): |
| \bigcirc | Not applicable |

Now imagine that during the fire season you and all those who normally reside with you are at home. It has been declared a day of 'Extreme Fire Danger', and there is a Total Fire Ban for your Region of the State/Territory. At about 3 pm you become aware of a warning (on the radio, or a web site, or by email, or text, or telephone) that there is a large bushfire burning out of control and that it will probably hit your location in <u>1–2 hours</u>. You look outside and see a large plume of smoke being blown toward your property.

Please think about what you would probably do if this happened, and answer the following:

From the time you receive the warning, how much time do you think you would have to leave with no danger? (tick one only)

- O More than 2 hours
- O 90 minutes to 2 hours
- O 60 to 90 minutes
- O 30 to 60 minutes
- O Less than 30 minutes
- O Could not say, too difficult for me to judge
- O Not applicable

| How likely do y | ou think it is th | at you could be I | n the situation | i described above | , |
|------------------|-------------------|-------------------|-----------------|-------------------|--------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very unlikely | Unlikely | Not sure | Likely | Very likely | N/A |
| How likely is it | that the wind w | ould change and | direct the fire | e away from your | house? |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very unlikely | Unlikely | Not sure | Likely | Very likely | N/A |

I would most likely seek information about the bushfire from the following sources (tick all that apply):

| Radio |
|--|
| Television |
| Internet – Fire agency website |
| Internet – Twitter |
| Internet – Facebook |
| Family and/or friends |
| Neighbours |
| Environmental cues (e.g. smoke, embers, flame) |
| Mobile phone – SMS |
| Mobile phone – Twitter |
| Mobile phone – Facebook |
| Other (please describe) |
| |
| None of the above |

I would be more likely to trust information from the following sources (<u>tick all that apply</u>):

| Radio |
|--|
| Television |
| Internet – Fire agency website |
| Internet – Twitter |
| Internet – Facebook |
| Family and/or friends |
| Neighbours |
| Environmental cues (e.g. smoke, embers, flame) |
| Mobile phone – SMS |
| Mobile phone – Twitter |
| Mobile phone – Facebook |
| Other (please describe) |
| |
| None of the chave |
| None of the above |

Please select the information sources you would expect to be most useful to you (tick all that apply):

| Radio |
|--|
| Television |
| Internet – Fire agency website |
| Internet – Twitter |
| Internet – Facebook |
| Family and/or friends |
| Neighbours |
| Environmental cues (e.g. smoke, embers, flame) |
| Mobile phone – SMS |
| Mobile phone – Twitter |
| Mobile phone – Facebook |
| Other (please describe) |
| |
| |
| None of the above |

| What d | o you think you would most likely decide to do? |
|---------|---|
| 0 | a. Leave as soon as you can |
| \circ | b. Stay to defend the home |
| 0 | c. Wait and see what develops, before finally deciding whether or not to leave, or to stay and defend |
| | |
| - | nose a. Leave as soon as you can , please proceed to the <u>yellow</u> section: PART II (L): IS FOR LEAVING (page 10). |
| - | nose b. Stay to defend the home , please proceed to the green section: PART II (S): IS FOR STAYING TO DEFEND (page 19). |
| | nose c. Wait and see what develops , please proceed to the light blue section: PART EASONS FOR WAITING TO SEE (page 29). |

PART II (L): REASONS FOR LEAVING

| (Please complete this section if you answered ' <u>a). Leave as soon as you can</u> ' in the hypothetical bushfire scenario.) | | | | | | | | |
|---|--------------------|-----------------|----------------|---------------------|-------------------|-----|--|--|
| How likely is it that you would decide to leave? | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Unlikely | Somewhat likely | Quite likely | Very likely | Extremely likely | Almost certain | N/A | | |
| I would leave as soon as possible | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| Unlikely | Somewhat likely | Quite likely | Very likely | Extremely likely | Almost certain | N/A | | |

| i would leave | no matter what | tne airricuities | mignt be | on the day | | | |
|---|-------------------------|---------------------|------------|-----------------------------|-----------|----------|--|
| O | ○ Somewhat | Quite | ○ Very | Extremely | Almost | O N/A | |
| , | likely | | ikely | likely | certain | • | |
| I believe that | leaving would be | e a safe option | for ensuri | | val | 0 | |
| Agree | Agree | Not sure | Disa | gree D | Disagree | N/A | |
| strongly | | | | s | strongly | | |
| How important to you is your personal safety in a bushfire? | | | | | | | |
| 0 | 0 | 0 | (| 0 | 0 | 0 | |
| Not at all important | Somewhat unimportant | Moderatel important | = | - | Extremely | N/A | |

| in the situation | in the situation described, leaving would be a safe option for most people | | | | | | | |
|----------------------|--|----------------------|-------------------|----------------------|-----|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| Leaving would | significantly imp | rove my chances | s of survival | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| How important | t to you is it that | your house is no | ot destroyed? | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Not at all important | Somewhat unimportant | Moderately important | Very important | Extremely important | N/A | | | |

| Those who are i | most importan | t to me would p | refer that I leav | e, rather than sta | ay and | | |
|--|---|-----------------|-------------------|----------------------|--------|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| I would want to | I would want to follow the wishes of those who are most important to me | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| I could financially afford to leave my home for several days | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |

| The option to le | The option to leave would be under my control | | | | | | | |
|---|---|----------|----------|----------------------|-----|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| I am physically a | I am physically and mentally fit enough to leave in such situations | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| I am confident I would be able to leave, in this scenario | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |

| Most people wo | Most people would leave in this scenario | | | | | | | |
|--|--|-----------------|------------------|----------------------|------------|--|--|--|
| ○ Agree strongly | ○ Agree | O Not sure | ○ Disagree | ○ Disagree strongly | O N/A | | | |
| | nds, family and | I neighbours wo | uld decide to le | ave, if they were | faced with | | | |
| tilis scenario | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| I believe I have a moral obligation to leave, in this type of scenario | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |

| I have a respons | I have a responsibility to be safe so as to ensure my family's well-being | | | | | | | |
|--|---|--------------------|------------------|----------------------|-----|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| I have a respons | ibility to ensu | re the survival of | f my livestock a | nd/or pets | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| I see myself as the type of person who avoids dangerous situations | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |

| see myself as the type of person who doesn't make hasty decisions | | | | | | | |
|--|-----------------|---------------|----------------|----------------------|-----|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| If I left I would k | oe anxious to k | now what happ | ened to my pro | perty | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| I would regret it if I decided to leave and my house was destroyed | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |

| I would feel gui | lty or ashamed | l if I left my anim | nals behind and | in danger | |
|-------------------|----------------|---------------------|--------------------|----------------------|-------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Please describe | the emotions | you would feel i | f you decided to | leave: | |
| The opinions an | _ | | e little influence | e on my decision | to stay and |
| defend of leave | under sach en | cumstances | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| My decision to I | eave, or stay, (| or wait would be | e entirely my ow | vn | |
|------------------------|------------------|-------------------|------------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| My <u>family</u> would | d want me to I | eave, rather tha | n stay and defe | nd | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| My <u>friends</u> wou | ld want me to | leave, rather tha | an stay and defe | end | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| With regard to | fire safety, I wa | ant to follow the | wishes of <u>famil</u> | ¥ | |
|-------------------|-------------------|--------------------|------------------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| With regard to | fire safety, I wa | ant to follow the | wishes of <u>frien</u> | <u>ds</u> | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| The thought of | dying in a bush | fire is terrifying | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| I feel very unco | mfortable whe | n I contemplate | the possibility | of being caught in | a bushfire | | | | |
|--|-----------------|-------------------|-----------------|----------------------|------------|--|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | | |
| Choosing to lea | ve could result | in serious injury | , | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | | |
| How <u>likely</u> do you think it is that you would be seriously injured in the course of leaving? | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Very unlikely | Unlikely | Not sure | Likely | Very likely | N/A | | | | |

| i believe that ch | loosing to leave | e coula result in | death | | |
|------------------------------|-------------------|-------------------|-------------------|---------------------------|----------|
| O Agree strongly | ○ Agree | O Not sure | ○ Disagree | O Disagree strongly | O N/A |
| How <u>likely</u> do yo ○ | ou think it is th | at you would die | e in the course o | of leaving? | |
| Very | Unlikely | Not sure | Likely | Very likely | N/A |
| unlikely My home is in a | n area where b | oushfires are unl | ikely to occur | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| The thought of a | a bushfire impa | acting my home | is so scary, I try | not to think abo | ut it |
|-------------------|------------------|----------------|--------------------|----------------------|-------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Leaving would b | oe difficult for | me | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Leaving would b | oe inconvenien | t | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| Leaving would involve significant financial expense | | | | | | | | |
|--|------------|-----------------|---------------|----------------------|----------|--|--|--|
| ○ Agree strongly | ○ Agree | O Not sure | ○ Disagree | ○ Disagree strongly | O N/A | | | |
| People who are important to me would approve of the decision I made to leave | | | | | | | | |
| r copie uno arc | portant to | ne would approv | | on i made to leave | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| Others respect those who make the decision to leave | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |

| Have y | ou eve | r been in a situa | tion similar to the | e scenario desci | ribed? | |
|-----------|---------------|-------------------|---------------------|------------------|----------------------|-----|
| | <u>Yes</u> | (if yes, what di | d you do?) | | | |
| | I left | | | | | |
| | I stay | ed and successfu | ılly defended my | house | | |
| | I stay | ed to defend, bu | t there was some | e damage to my | house | |
| | I stay | ed to defend, bu | t the house was | destroyed/irrep | arable | |
| | Othe | r, please describ | e | | | |
| | | | | | | |
| | <u>No</u> | | | | | |
| Now p | lease a | nswer some gen | eral questions | | | |
| I feel tl | hat I an | n a person of wo | rth on an equal p | plane with othe | rs | |
| , | 0 | 0 | 0 | 0 | 0 | 0 |
| _ | gree ongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| When I get scar | ed, I panic | | | | |
|--------------------------|------------------|-------------------------------------|----------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very untrue for me | Untrue for me | Untrue and true about equally | True for me | Very true for me | N/A |
| I'm on first-nan | ne terms with n | nany of my neigh | bours | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I miss my prope | erty when I am | away for too lon | g | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| I certainly feel | useless at times | S | | | | | | |
|---|------------------|-------------------------------------|----------------|----------------------|-----|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Agree Not sure Disagree Strongly | | | | | | |
| I am always cal | m – nothing eve | er bothers me | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Very untrue for me | Untrue for me | Untrue and true about equally | True for me | Very true for me | N/A | | | |
| People here work together to try to improve things in the community | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |

| Where I live is my favourite place to be | | | | | | | | | |
|--|------------|----------|----------|----------------------|-----|--|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | | |
| What is the main reason you did not choose to <u>stay and defend</u> your property? | | | | | | | | | |
| | | | | | | | | | |
| This is the end o | of Part II | | | | | | | | |
| Please proceed to Part III: Preparing for a Bushfire (the white section beginning on page 43). | | | | | | | | | |
| (You are not required to fill out the green or blue sections.) | | | | | | | | | |

PART II(S): REASONS FOR STAYING TO DEFEND

likely

likely

likely

likely

certain

| | olete this section bushfire scenar | | vered ' <u>b) Sta</u> | ny to defend the | home' in the | |
|---------------|---------------------------------------|-----------------|-----------------------|---------------------|-------------------|-----|
| How likely is | it that you wou | ld decide to | stay? | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unlikely | Somewhat likely | Quite likely | Very likely | Extremely likely | Almost certain | N/A |
| I would imm | ediately prepare | e the proper | ty for active | defence | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unlikely | Somewhat likely | Quite likely | Very likely | Extremely likely | Almost certain | N/A |
| | | | | | | |
| I would stay | and defend no r | natter what | the difficult | ies might be on | the day | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unlikely | Somewhat | Quite | Very | Extremely | Almost | N/A |

| I believe that staying and defending would be a safe option for ensuring my survival | | | | | | | | |
|--|-------------------------|-------------------------|-------------------|----------------------|-----|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree Not sure | | Disagree | Disagree strongly | N/A | | | |
| How important | t to you is your pe | ersonal safety ir | a bushfire? | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Not at all important | Somewhat unimportant | Moderately important | Very important | Extremely important | N/A | | | |
| In the situation described, staying and defending would be a safe option for most people | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |

| Staying would significantly improve my chances of survival | | | | | | | | | |
|--|----------------------|----------------------|-------------------|----------------------|-----|--|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | | |
| Staying and de | fending would sig | gnificantly impro | ove my chances | of saving my ho | use | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | | |
| How important to you is it that your house is not destroyed? | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Not at all important | Somewhat unimportant | Moderately important | Very important | Extremely important | N/A | | | | |

| leave | nost importan | t to me would pi | refer that I stay | and detend, ratr | ier than |
|-------------------|----------------|------------------|-------------------|----------------------|----------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I would want to | follow the wis | shes of those wh | o are most imp | ortant to me | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I could afford to | purchase the | equipment nece | ssary to stay an | d defend | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| The option to st | ay and defen | nd would be und | der my control | | | |
|-------------------|--------------|------------------|------------------|----------------------|-----|-----|
| 0 | 0 | 0 | 0 | 0 | | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | | N/A |
| I am physically a | and mentally | fit enough to st | ay and defend | in such situation | s | |
| 0 | 0 | 0 | 0 | 0 | 0 | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | |
| I am confident I | would be ab | le to stay and d | efend in this so | rt of situation | | |
| 0 | 0 | 0 | 0 | 0 | | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | | N/A |

| Most people wo | ould stay and d | lefend, in this sco | enario | | |
|-------------------------------------|-----------------|---------------------|-------------------|----------------------|-------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Most of my friend faced with this s | = | d neighbours wo | ould decide to st | tay and defend, i | f they were |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I believe I have | a moral obliga | tion to stay and | defend the hou | se, in this type of | scenario |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| i nave a respons | sibility to be sa | ite so as to ensur | e my family's w | eii-being | |
|-------------------|-------------------|--------------------|------------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I have a respons | ibility to ensu | re the survival of | f my livestock a | nd/or pets | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I see myself as t | he type of per | son who could fi | ght to defend tl | neir house | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| I see myself as the type of person who doesn't make hasty decisions | | | | | | | |
|---|-----------------|-------------------|----------|----------------------|-----|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| Staying and def | ending would | be frightening fo | r me | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| I would feel anx | rious about sta | ying and defend | ing | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |

| Please describe | escribe the emotions you think you would feel if you decided to stay and defend | | | | | |
|----------------------------------|---|------------------|--------------------|----------------------|-------------|--|
| | | | | | | |
| The opinions and defend or leave | | | e little influence | e on my decision | to stay and | |
| defend of leave | under sach en | cumstances | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | |
| My decision to | leave, or stay, | or wait would be | e entirely my ov | vn | | |
| 0 | 0 | 0 | 0 | 0 | 0 | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | |

| iviy <u>tamily</u> would | d want me to s | stay and detend, | rather than lea | ve | |
|--------------------------|------------------|-------------------|-------------------|----------------------|----------|
| ○ Agree | ○ Agree | O Not sure | ○ Disagree | ○ Disagree | O N/A |
| strongly | | | | strongly | |
| | | | | | |
| My <u>friends</u> wou | ld want me to | stay and defend | , rather than lea | ave | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| | | | | | |
| With regard to f | ire safety, I wo | ould want to foll | ow the wishes o | of <u>family</u> | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| with regard to f | ire satety, i wo | ould want to folk | ow the Wishes C | or <u>trienas</u> | |
|-------------------|------------------|---------------------|-------------------|----------------------|--------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| The thought of o | dying in a bush | ifire is terrifying | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I feel very uncor | nfortable whe | n I contemplate | the possibility (| of being caught in | n a bushfire |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| Choosing to sta | y and detend c | ouia result in sei | rious injury | | |
|---|-----------------|--------------------|-------------------|----------------------|------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| How <u>likely</u> do you and defending? | | at you would be | seriously injur | ed in the course c | of staying |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very unlikely | Unlikely | Not sure | Likely | Very likely | N/A |
| I believe that ch | noosing to stay | and defend cou | ld result in deat | th | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| How <u>likely</u> do you think it is that you would die in the course of staying and defending? | | | | | | | |
|---|----------------|-------------------|----------------|----------------------|-----|--|--|
| | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Very unlikely | Unlikely | Not sure | Likely | Very likely | N/A | | |
| My home is in a | n area where b | oushfires are unl | ikely to occur | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| The thought of a bushfire impacting my home is so scary, I try not to think about it | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |

| Staying and defending would be difficult for me | | | | | | | | |
|---|-----------------|--------------------|----------|----------------------|-----|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| Defending woul | d be inconveni | ient | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| Defending woul | d involve signi | ficant financial e | expense | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |

| People who are and defend | important to r | ne would approv | ve of the decision | on I made if I wer | e to stay |
|---------------------------|-----------------|--------------------|--------------------|----------------------|-----------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Others would th | nink I was brav | e if I were to sta | y and defend | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Others respect t | those who mak | e the decision to | o stay and defei | nd | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| Have yo | ou ever | been in a situat | ion similar to the | e scenario desci | ibed? | |
|------------|-------------|-------------------|--------------------|------------------|----------------------|-----|
| | <u>Yes</u> | (if yes, what did | l you do?) | | | |
| | I left | | | | | |
| | I staye | ed and successfu | lly defended my | house | | |
| | I staye | ed to defend, but | there was some | damage to my | house | |
| | I staye | ed to defend, but | the house was o | destroyed/irrep | arable | |
| | Other, | , please describe | | | | |
| | <u>No</u> | | | | | |
| Now plo | ease an | swer some gene | eral questions | | | |
| I feel th | at I am | a person of wo | th on an equal p | lane with othe | rs | |
| | | 0 | 0 | 0 | 0 | 0 |
| Ag stro | ree ngly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| When I get scar | red, I panic | | | | |
|--------------------------|------------------|-------------------------------------|------------------|----------------------|-----|
| | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very untrue for me | Untrue for me | Untrue and true about equally | True for me | Very true for me | N/A |
| I'm on first-nan | ne terms with n | nany of my neigh | nbours | | |
| 0 | 0 | 0 | \circ | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I miss my prope | erty when I am | away from the p | lace for too lor | ng | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| i certainly feel | useless at times | i | | | |
|--------------------------|------------------|-------------------------------------|------------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| l am always cal | m – nothing evo | er bothers me | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very untrue for me | Untrue for me | Untrue and true about equally | True for me | Very true for me | N/A |
| People here wo | ork together to | try to improve th | nings in the con | nmunity | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| where I live is my favourite place to be | | | | | | | | |
|--|---|---------------|----------------|----------------------|-----|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| What is the main reason you did not choose to leave early? | | | | | | | | |
| | | | | | | | | |
| This is the end o | of Part II | | | | | | | |
| Please proceed beginning on | | Preparing for | a Bushfire (th | ne white sectio | on | | | |
| (You are not req | (You are not required to fill out the yellow or blue sections.) | | | | | | | |

PART II (W): REASONS FOR WAITING TO SEE

| (Please complete this section if you answered | ' <u>c) Wait</u> | and see | what develor | <u>os</u> ' in the |
|---|------------------|---------|--------------|--------------------|
| hypothetical bushfire scenario.) | | | | |

| hypothetical | bushfire scenar | io.) | | | | |
|---------------|--------------------|-----------------|----------------|---------------------|-------------------|-----|
| How likely is | it that you wou | ld decide to | wait and se | e? | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unlikely | Somewhat likely | Quite likely | Very likely | Extremely likely | Almost certain | N/A |
| I would retu | rn to doing wha | t I was doing | g before I sav | w the smoke | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unlikely | Somewhat likely | Quite likely | Very likely | Extremely likely | Almost certain | N/A |
| I would wait | and see no mat | ter what the | e difficulties | might be on the | e day | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Unlikely | Somewhat likely | Quite likely | Very likely | Extremely likely | Almost certain | N/A |

| I believe waitir | ng to see how thin | ngs unfold woul | d be a safe opti | on for ensuring n | ny survival |
|----------------------|-------------------------|-------------------------|-------------------|----------------------|-------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| How important | t to you is your po | ersonal safety ir | a bushfire? | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Not at all important | Somewhat unimportant | Moderately important | Very important | Extremely important | N/A |
| In the situation | n described, waiti | ng and seeing w | ould be a safe | option for most p | people |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| Waiting would | significantly imp | rove my chance | s of survival | | |
|----------------------|-------------------------|----------------------|-------------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Waiting and se | eeing would signif | icantly improve | my chances of | saving my | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| How importan | t to you is it that | your house is no | ot destroyed? | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Not at all important | Somewhat unimportant | Moderately important | Very important | Extremely important | N/A |

| Those who are r leave or stay | most importan | t to me would p | refer that I wait | and see, before | deciding to |
|----------------------------------|------------------|------------------|-------------------|----------------------|-------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I would want to | follow the wis | shes of those wh | o are most imp | ortant to me | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I believe I would to leave | l be able to pro | epare and defen | d my home if it | became unsafe | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| The option to wait would be under my control | | | | | | | | |
|---|-----------------|------------------|--------------------|---------------------------|----------|--|--|--|
| O Agree strongly | ○ Agree | O Not sure | O Disagree | O Disagree strongly | O N/A | | | |
| I am physically a | and mentally fi | it enough to wai | t it out in such s | ituations | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |
| I believe I would be able to leave my home if it became unsafe to stay and defend | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |

| am confident I would be able to wait and see in this sort of situation | | | | | | | |
|--|-----------------|--------------------|------------------|----------------------|---------|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| Most people wo | ould wait and s | see, in this scena | rio | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| Most of my frie faced with this | | d neighbours wo | ould decide to w | vait and see, if th | ey were | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |

| I believe I have a | a moral obliga | tion to wait and | see what devel | ops in this scenar | rio |
|--------------------|------------------|--------------------|------------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I have a respons | ibility to be sa | fe so as to ensur | re my family's w | vell-being | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I have a respons | ibility to ensu | re the survival of | f my livestock a | nd/or pets | |
| 0 | \circ | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| i see myseir as t | ne type of per | son wno coula ti | gnt to detend ti | neir nouse | |
|-------------------|----------------|------------------|------------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I see myself as t | he type of per | son who doesn't | make hasty de | cisions | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Waiting before | making a firm | decision would b | e frightening fo | or me | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| I would feel anx | ious about wa | iting around bef | ore making my | decision to stay o | or leave |
|-------------------|----------------|---------------------|--------------------|----------------------|-------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I would feel gui | lty or ashamed | l if I left my anim | nals behind in da | anger | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Please describe | the emotions | you think you w | ould feel if you | decided to wait | |
| The opinions an | _ | | e little influence | e on my decision | to stay and |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| My decision to | leave or stay, o | or wait would be | entirely my ow | 'n | |
|-----------------------|------------------|------------------|-------------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| My <u>family</u> woul | d want me to v | wait and see, be | fore deciding to | leave or stay | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| My <u>friends</u> wou | ld want me to | wait and see, be | efore deciding to | o leave or stay | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| with regard to i | ire satety, i wo | ould want to folk | ow the wishes o | or <u>ramily</u> | |
|-------------------|------------------|--------------------|-----------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| With regard to f | ire safety, I wo | ould want to foll | ow the wishes o | of <u>friends</u> | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| The thought of o | dying in a bush | fire is terrifying | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| I feel very unco | mfortable whe | n I contemplate | the possibility | of being caught in | a bushfire |
|--------------------------|-------------------|--------------------|------------------|----------------------|------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Choosing to wa | nit and see could | l result in seriou | ıs injury | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| If you were to vinjured? | wait and see, ho | ow likely do you | think it is that | you would be seri | iously |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very unlikely | Unlikely | Not sure | Likely | Very likely | N/A |

| Choosing to wait and see could result in death | | | | | | | | |
|--|------------------|-------------------|--------------------|---------------------------|----------|--|--|--|
| ○ Agree strongly | ○ Agree | O Not sure | O | O Disagree strongly | O N/A | | | |
| If you were to w | vait and see, ho | ow likely do you | think it is that y | you would die? | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Very unlikely | Unlikely | Not sure | Likely | Very likely | N/A | | | |
| My home is in a | n area where b | oushfires are unl | ikely to occur | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | | |

| The thought of | a bushfire impa | acting my home | is so scary, I try | not to think abo | ut it |
|-------------------|------------------|----------------|--------------------|----------------------|-------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Leaving would b | be difficult for | me | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Leaving would b | be inconvenien | t | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| Staying and defending would be difficult for me | | | | | | | |
|---|-----------------|--------------------|----------|----------------------|-----|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| Defending woul | d be inconven | ient | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |
| Defending woul | d involve signi | ficant financial e | expense | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A | | |

| and see | important to r | ne would approv | ve of the decision | on i made if i wer | e to wait |
|-------------------|----------------|--------------------|--------------------|----------------------|-----------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Others respect t | hose who mak | ce the decision to | o wait and see | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Others would th | ink I was brav | e if I were to wa | it and see | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| Have you ever been in a situation similar to the scenario described above? | | | | | | |
|--|----------------|--|----------------|-----------------|---------------------|-----|
| | Yes (if | yes, what did you | do?) | | | |
| | I left | ,, | , | | | |
| | | and successfully de | efended my ho | ome | | |
| | - | to defend but ther | - | | use | |
| | - | but my house was | | - | | |
| | - | , olease describe | , , | | | |
| | | | · | | | |
| | <u>No</u> | | | | | |
| there w | as a bush | reasons people ha fire warning. For e o wait and see | | - | _ | |
| I would was nec | | the inconvenienc | e of packing u | p and leaving u | nless I was sure it | |
| (|) | 0 | 0 | 0 | 0 | 0 |
| | ery portant | Unimportant | Not sure | Important | Very important | N/A |

| I cannot think of | I cannot think of anywhere I could go to for the day where I could take our pets | | | | | | | | |
|---|--|---------------------|-----------------|-------------------|-----------|--|--|--|--|
| 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A | | | | |
| I do not know wl | here I would find | suitable <i>and</i> | affordable acco | mmodation for | my family | | | | |
| 0 | 0 | \circ | 0 | 0 | 0 | | | | |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A | | | | |
| I have elderly or disabled household members who cannot easily be relocated for the day | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A | | | | |

| i am worried abo | out looters if mos | t community r | nembers reloca | te for the day | |
|-----------------------------|--|----------------|-------------------|---------------------|-------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| | t to leave my hou y defended agains | | destroyed by a | small fire that I o | could |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| I would be worri | ied that if I left I m | night be unabl | e to return to ch | neck on my propo | erty |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |

| I would be worri livestock | ed that if I left I m | night be unabl | e to return in tii | me to look after | my |
|-------------------------------|-----------------------|------------------|--------------------|-------------------|-------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| I would want to | be certain that it | was still safe f | or me to leave | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| I think I am able | to defend my pro | perty on all b | ut the most cata | strophic days of | fire danger |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |

| I would feel emb | parrassed if I left a | and the fire did | d not come near | my property | |
|--------------------------------|-----------------------|------------------|------------------|--------------------|-------------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| What is your ma | in reason for cho | osing to wait a | ınd see? (Please | describe) | |
| How important leave or to stay | would each of the | following be | in you making y | our final decision | n to either |
| The reported sp | eed and intensity | of the fire | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |

| Where the fire w | vas likely to come | from if it was | likely to hit you | ır property | |
|--------------------------------|--------------------|----------------|-------------------|--------------------|-------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| The time it woul | d take to reach a | safe location | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| The likelihood the power-lines | nat exit routes wo | ould be slowed | by heavy traffi | c or blocked by fa | allen |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |

| wnat your neigr | ibours were doing | 3 | | | |
|-----------------------------|----------------------|------------------|-----------------|-------------------|-------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| What members | of the local fire br | rigade, or polic | ce, or SES were | advising people t | to do |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| What members | of your family we | re advising yo | u to do by phon | e, e-mail or text | ing |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |

| The official advictexting | e and warnings c | oming over th | e radio, the inte | ernet, by e-mail, (| or SMS |
|-----------------------------|------------------|----------------|--------------------|---------------------|--------|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| A local audible w | arning such as a | community ale | ert siren if one e | existed | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| The safety of dep | oendent members | s of the house | hold | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |

| The likely stress | of a bushfire on v | rulnerable mei | mbers of the ho | usehold | |
|-----------------------------|---------------------|-----------------|-----------------|-------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| The peace-of-mi | nd of family or fri | ends living els | ewhere | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |
| The safety of my | pets and/or lives | stock | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very <u>un</u> important | Unimportant | Not sure | Important | Very important | N/A |

| Other things th defend? | at would be im | portant in you m | aking a final de | ecision to leave o | r stay and |
|--------------------------|------------------|-------------------------------------|------------------|----------------------|------------|
| Now please an | swer some gene | eral questions. | | | |
| I feel that I am | a person of wo | rth on an equal p | lane with othe | rs | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| When I get sca | red, I panic | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very untrue for me | Untrue for me | Untrue and true about equally | True for me | Very true for me | N/A |

| I'm on first-nam | ne terms with r | many of my neig | hbours | | |
|--------------------|------------------|-----------------|----------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I miss my prope | rty when I am | away from the p | place too long | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| I certainly feel ι | useless at times | S | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| I am always ca | lm – nothing ev | er bothers me | | | |
|--------------------------|------------------|-------------------------------------|------------------|----------------------|-----|
| 0 | 0 | 0 | 0 | 0 | 0 |
| Very untrue for me | Untrue for me | Untrue and true about equally | True for me | Very true for me | N/A |
| People here we | ork together to | try to improve th | nings in the con | nmunity | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |
| Where I live is | my favourite pl | ace to be | | | |
| 0 | 0 | 0 | 0 | 0 | 0 |
| Agree strongly | Agree | Not sure | Disagree | Disagree strongly | N/A |

| What is the main reason you did not choose to leave early? |
|--|
| |
| |
| |
| |
| What is the main reason you did not choose to stay and defend? |
| |
| |
| |
| |
| |
| This is the end of Part II. |
| |
| |
| |
| Please proceed to Part III: Preparing for a Bushfire (the white section beginning on page 43). |
| beginning on page 40). |
| (You are not required to fill out the vollow or green sections.) |
| (You are not required to fill out the yellow or green sections.) |

PART III: PREPARING FOR A BUSHFIRE

Below is a list of things that people who live in a place that could be at risk from a bushfire can do to make themselves safer. For each one, say whether you or a member of your household has already done, partially done, definitely will do, intend to do, may do, or will not do, to prepare for a bushfire this fire season—if an item does not apply (e. g. it is about livestock or pets and you do not have any), then choose Not applicable.

For the **coming** fire season:

Prepared a plan involving all members of the household for what to do when a day of extreme, or worse, fire danger is predicted for your region

| 0 | 0 | 0 | \circ | 0 | 0 | 0 |
|-----------------|-------------------|--------------------|-----------------|--------|----------------|-------------------|
| Already done | Partially done | Will definitely | Intend to do | May do | Will not do | Not applicable |
| | | do | | | | |

| If you | already have a plan, it is (choose one): |
|--------|--|
| 0 | Leave early (that is, before 10 am on all days with an Extreme Fire Danger rating, or the night before those days) |
| 0 | Leave when there is a warning or signs of a fire |
| 0 | Stay to defend the home |
| 0 | Some family members leave, others stay to defend |
| 0 | Other (please describe): |
| your h | ome? |
| 0 | |
| 0 | Already done |
| 0 | Already done Partially done |
| _ | |
| 0 | Partially done |
| 0 | Partially done Will definitely do |
| 0 | Partially done Will definitely do Intend to do |

| If you a | ilready have a plar | ı, it is (choose d | one): | | | |
|------------|--|--------------------------|-----------------|-----------------|----------------|-------------------|
| 0 | Leave immediately (i.e. as soon as there is a WARNING that there is a bushfire that MIGHT threaten your home) | | | | | |
| 0 | Leave, but not until there are clear signs that the fire is LIKELY to threaten your home (e.g. when you can see smoke, or embers, or flames) | | | | | |
| 0 | Stay to defend the home | | | | | |
| 0 | Some family members leave, others stay to defend | | | | | |
| 0 | Other (please describe) | | | | | |
| | owing preparation . Please indicate w | | - | r decision is t | o leave or sta | ay and |
| Checke | d that you have er | nough home co | ntents and b | ouilding insura | ance | |
| C |) (| 0 | 0 | 0 | 0 | 0 |
| Alre do | • | Will definitely do | Intend to do | May do | Will not do | Not applicable |

| - | | nts and posses ked ready to ta | _ | | = | oof location |
|---------------------------|-------------------|-----------------------------------|-----------------|---------------|----------------|-------------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Used landsca bushfires | ping, tree pla | inting, or the la | ayout of the | garden to pro | otect the hou | se from |
| 0 | 0 | 0 | 0 | \circ | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Installed roof | gutter prote | ction | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |

| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-------------------------------|-------------------|--------------------------|-----------------|--------------|----------------|-------------------|
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Covered gaps under the roo | | reduce the ris | sk of embers | entering the | house throu | gh openings |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Installed seal | s and/or dra | ft protectors a | round windo | ws and doors | S | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |

Enclosed under-floor spaces to prevent embers or flames entering

| Instal | lled | shutters | for | windows |
|--------|------|----------|-----|----------|
| IIISta | IICU | SHULLEIS | IUI | WIIIUUWS |

| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------------|-------------------|--------------------------|-----------------|----------------|----------------|-------------------|
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Installed a sp | rinkler syster | n on or around | d the house | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Installed a wa | ater tank for | firefighting pu | rposes and/o | or to supply a | sprinkler sys | stem |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |

| Removed bus | shes close to | the house and | cut back ove | erhanging tre | e branches | |
|-----------------|-------------------|-------------------------------------|-----------------|-----------------|----------------|-------------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| | | rial such as fire s away from th | _ | en furniture, I | awn mower | and fuel, |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Cleared leave | es, twigs, long | g grass from ar | ound the ho | use to a dista | nce of 20–30 | metres |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |

| | | oy where you, one because of a | | ily members, | could shelte | r safely if |
|-----------------|-------------------|--------------------------------|-----------------|--------------|----------------|-------------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| | _ | decided to lea | - | | | |
| \circ | \circ | 0 | 0 | \circ | 0 | \circ |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Obtained a b | attery-power | ed radio with | fresh batteri | es | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |

| Prepared a kit of the househ | - | e clothing and | gear (boots | , smoke mask | s, goggles) fo | or members |
|-----------------------------------|-------------------|--------------------------------|-----------------|-----------------|----------------|-------------------|
| 0 | 0 | \circ | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Installed a pu or electrically | - | s not depend o a generator) | n mains ele | ctric power (i. | e. petrol, die | esel-driven, |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Obtained and | prepared ho | oses for firefigh | iting, long ei | nough to reac | h all parts of | the house |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |

| Obtained and | prepared fire | efighting equi | pment such a | s ladders, bu | ckets and i | mops |
|-----------------|-------------------|--------------------------|-------------------------------|----------------|----------------|-------------------|
| | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already | Partially | Will | Intend | May do | Will not | Not |
| done | done | definitely do | to do | | do | applicable |
| Installed or co | onstructed a f | ïre shelter or | bunker in wh | ich to take re | efuge if nec | essary |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Already done | Partially done | Will definitely do | Intend to do | May do | Will not do | Not applicable |
| | | | | | | |
| On days wher | n the fire dang | ger is classifie | ed 'Severe' or | 'Extreme' wi | ll you: | |
| Fill containers | s (buckets, bir | ns, drums) wi | th water and ${}_{\parallel}$ | place these in | n or around | the house |
| 0 | | 0 | 0 | 0 | | 0 |
| Will definite | ely Inten | d to do | May do | Will no | ot do | Not applicable |

| 0 | 0 | 0 | 0 | 0 |
|-----------------------|------------------------|----------------|-------------|----------------|
| Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Fill some container | s with emergency d | Irinking water | | |
| 0 | 0 | 0 | 0 | 0 |
| Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Make arrangement | ts for pets or livesto | ock to be safe | | |
| 0 | 0 | 0 | 0 | 0 |
| Will definitely do | Intend to do | May do | Will not do | Not applicable |

Clear leaves from the roof gutters and roof surfaces

| Park the car facing if the plan is to def | - | vay quickly, garag | ge doors open, gate | es unlocked (even |
|---|-----------------------|--------------------|----------------------|-------------------|
| 0 | 0 | 0 | 0 | 0 |
| Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Prepare a kit to tak (or in case defense | | | | |
| 0 | 0 | 0 | 0 | 0 |
| Will definitely do | Intend to do | May do | Will not do | Not applicable |
| Ensure my mobile p pre-paid) | ohone is kept fully (| charged (and has | sufficient credit fo | r making calls if |
| 0 | 0 | 0 | 0 | 0 |
| Will definitely do | Intend to do | May do | Will not do | Not applicable |

| | er things you will have done to make yourself safer if your home is threatened by a e? (Please describe) |
|----------|---|
| | |
| | |
| Finally: | |
| About h | now far is your house from bushland (long grass, scrub, trees)? |
| 0 | 30 meters or less |
| 0 | 30–50 meters |
| \circ | 50–100 meters |
| \circ | 100–200 meters |
| \circ | 200–300 meters |
| 0 | 300 meters + |
| 0 | N/A |

| What is | road access to your property like? |
|-----------|--|
| | |
| \circ | Several alternative routes out to safety, little or no vegetation |
| 0 | Several alternative routes, but most have roadside shrubs or trees |
| 0 | One route, little or no vegetation |
| 0 | One route, numerous trees |
| 0 | Other: (please describe) |
| | |
| \circ | N/A |
| O | N/A |
| Please ra | ate overall how vulnerable you think your house is to bushfire. |
| · rease r | ate overall now value able you tilling your nouse is to businine. |
| 0 | Not at all vulnerable |
| 0 | Minimal vulnerability |
| 0 | Moderate vulnerability |
| \circ | Highly vulnerable |

 \bigcirc

Extremely vulnerable

| house if a bushfire did threaten your property. | | |
|--|---------------------------|--|
| | | |
| 0 | No protection | |
| 0 | Minimal protection | |
| \circ | Moderate protection | |
| \circ | High protection | |
| \circ | Extremely high protection | |
| 0 | N/A | |
| | | |
| Please rate how likely it is that a bushfire will threaten your property in the future | | |
| | | |
| 0 | Very unlikely | |
| 0 | Unlikely | |
| 0 | Not sure | |
| \circ | Likely | |
| \circ | Very likely | |
| | | |

Please rate the extent to which your house construction material would protect your

Please rate the extent to which your preparations for a bushfire would protect your house if a bushfire did threaten your property

| 0 | No protection |
|---|---|
| 0 | Minimal protection |
| 0 | Moderate protection |
| 0 | High protection |
| 0 | Extremely high protection |
| 0 | N/A |
| | are any other comments you would like to offer about your fire risk and/or safety add them below. |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |
| | |