

### INCREASING PREPAREDNESS AND PLANNING AMONGST RESIDENTS OF HAZARD PRONE AREAS

An RAF Progress Report

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MELBOURNE SCHOOL OF PSYCHOLOGICAL SCIENCES

#### **PROJECT OVERVIEW**

- 1) <u>Problem Statement 1</u> When examining residents' hazard preparedness, how do we assess different types of 'preparedness'?
- 2) <u>Problem Statement 2</u> How effective are current information sources in helping people plan and prepare?
- 3) <u>Problem Statement 3</u> How can agencies' strategies be improved to make them more effective in helping residents prepare and plan for natural hazards?

### PROJECT PHASES - STAGE 1 (UNTIL JUNE 2017)

Four Stage 1 phases of the project which address our three problem statements in the context of Bushfires and Floods.

Phase 1: Development of Key Measures of Preparedness

Phase 2: Relative Effectiveness of Current Communication Strategies

Phase 3: Identifying Key Barriers and Enablers of Disaster Resilience Building Activities

Phase 4: Development and Improvement of Strategies to Facilitate Disaster Resilience Building Activities

#### PHASE 1: MEASUREMENT DEVELOPMENT

The first phase focused on the development of reliable and valid measures of preparing and planning for bushfires and floods.

These measures needed to cover a variety of preparedness and planning types.

These measures focus on:

- Physical Preparedness
- Psychological Planning
- Social Support Available for Response/Recovery
- Knowledge of the Hazard

### PHASE 2: RELATIVE EFFECTIVENESS OF CURRENT COMMUNICATION STRATEGIES

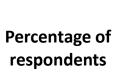
The bushfire survey was completed collected 4 weeks after the start of the bushfire season (October – December 2014, depending on State and Council), and 6 weeks after the first survey.

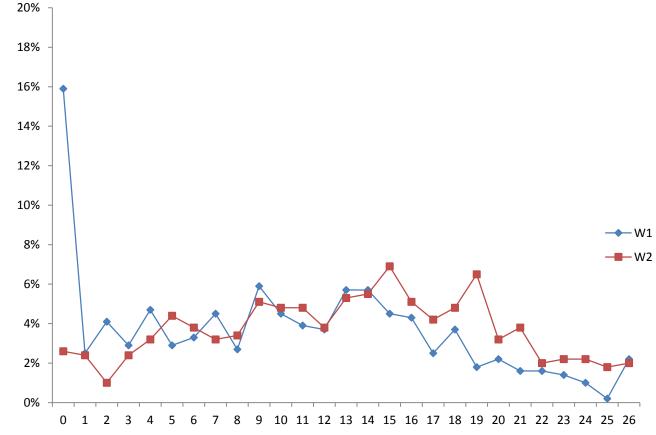
514 matched responses from residents living in bushfire-prone areas in New South Wales, South Australia, Tasmania, Victoria, and Western Australia (all south of Geraldton).

The flood survey was collected in February 2015.

286 responses from residents living in flood-prone areas in New South Wales and Queensland.

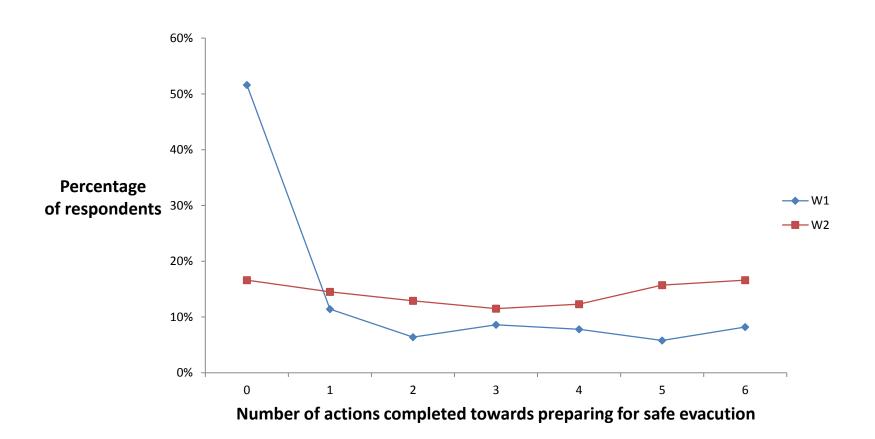
### NUMBER OF RELEVANT ACTIONS COMPLETED FOR PREPARING FOR BUSHFIRES



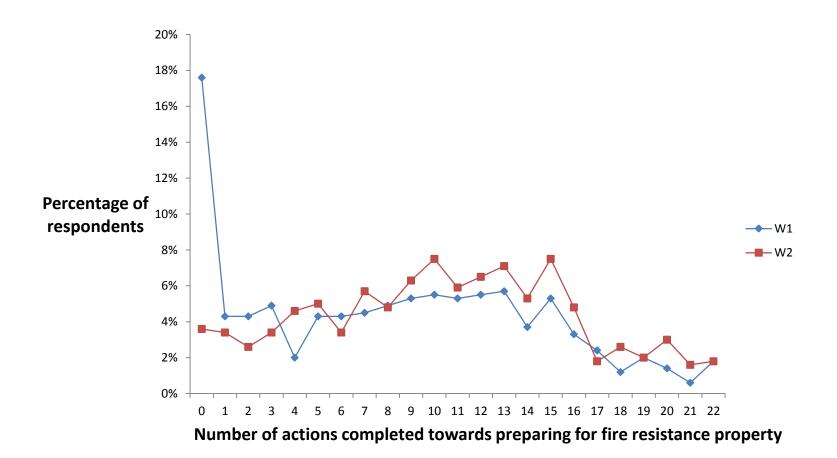


Number of actions completed towards preparing for safely defending

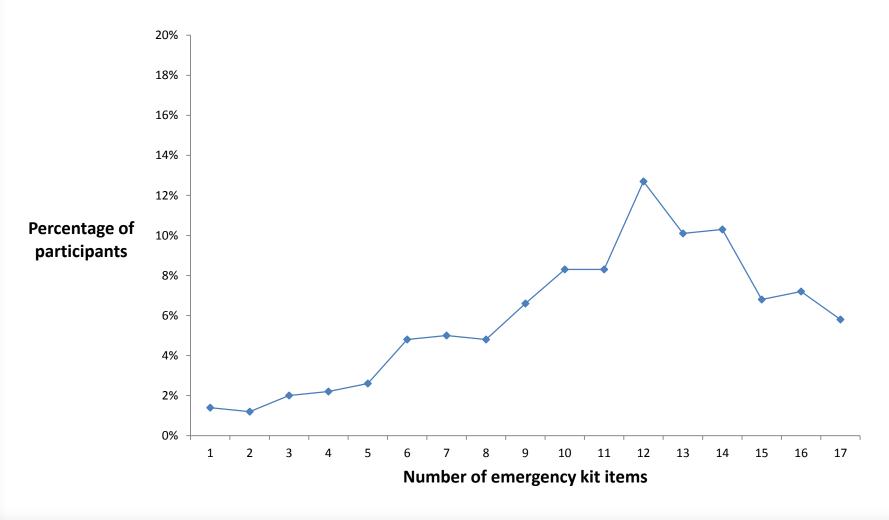
# NUMBER OF RELEVANT ACTIONS COMPLETED FOR PREPARING FOR BUSHFIRES



## NUMBER OF RELEVANT ACTIONS COMPLETED FOR PREPARING FOR BUSHFIRES



## NUMBER OF EMERGENCY KIT ITEMS FOR FLOODS



#### PHASE 2: PREPAREDNESS FOR BUSHFIRES

- 44% had used at least one information source.
- 23% of people used a brochure, 20% used a website, and 5% attended a meeting.
- 52% recalled seeing a bushfire-related TV commercial in the last six months.
- People who used one information source or had seen a TV commercial completed more preparedness and planning actions.
- People who had used multiple information sources completed more preparedness and planning.
- Use of websites had the greatest positive impact on preparedness, followed by brochure use. Meeting attendance and seeing a TV commercial had only small effects.

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#### PHASE 2: PREPAREDNESS FOR FLOODS

- 31% had used at least one information source.
- 18% used a brochure, 17% used a website, and 13% attended a local meeting.
- 23% recalled seeing a flood-related TV commercial in the last six months.
- People who used information sources completed more planning actions.
- Use of brochures had the greatest impact on planning and preparedness.
- Website use and meeting attendance only had only small effects on planning.

#### PHASE TWO SUMMARY

- Less than half the participants had used at least one information source related to the preparing for bushfires or floods.
- More individuals used sources for bushfires than for floods.
- Use of websites had the greatest positive impact on preparedness for bushfires, followed by brochure use.
- Meeting attendance and seeing a television commercial had only small effects on preparedness.
- Use of brochures had the greatest positive impact on planning and physical preparedness for floods. Website use and meeting attendance only had only small effects on planning.

## PHASE 3: BARRIERS AND ENABLERS OF DISASTER RESILIENCE BUILDING ACTIVITIES

Focus: Identifying key barriers and motivators for residents' engagement with disaster resilience-building activities.

- Why some individuals or households prepare and plan more so than others.
- Why some individuals or households engage with disaster resilience building programs in their community more so than others.
- Key factors: Perceptions of risk, beliefs that preparing will reduce risk, & personality factors.

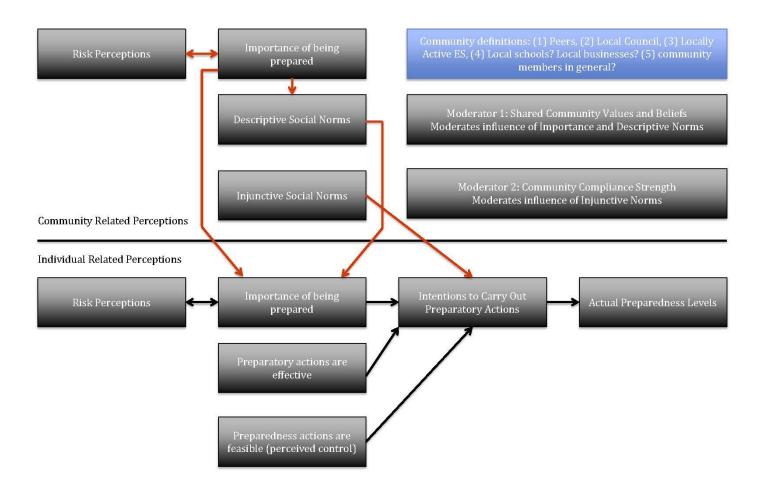
### KEY LESSONS LEARNED ABOUT PREPAREDNESS AND PLANNING FOR BUSHFIRES AND FLOODS

- Using information sources is related to greater preparedness for bushfires and floods.
- Using information sources is related to risk perceptions.
- Using information sources is related to greater motivation to prepare for bushfires and floods.
- People who are more conscientious are more likely to use information.
- However, changing information may have limited impact because a majority of people do not use information sources.

#### **NEXT PHASE**

- Understanding the role of residents' perceptions of responsibility and control.
- Understanding the role of community culture.
- Do connections with the community (including locallyactive agencies) lead to greater household preparedness?
- What is the process by which connections with the community lead to greater household preparedness?

### **MODEL**



#### **COMMUNITY CULTURE**

- Does community culture predict residents' preparedness for the hazard?
- If so, what is process (e.g., what is the role of personal values)?
- Is the influence of community culture limited to those residents who feel connected to their community?
- Do residents connect more with peers, council, or locally-active emergency management agencies?
- Do perceived community values and norms depend on the types of programs and initiatives the community has implemented in the previous 3 months?
- Is the effect of programs and initiatives on perceived community values and norms greater for peers, local council, or locally-active emergency management?

#### **END-USERS AND FEEDBACK PROVIDERS**

Andrew Richards – SES NSW

Anthony Clark – RFS NSW

Kate White – SES VIC

Fiona Dunstan – CFS

Peta O'Donohue – CFS

Glenn Benham – SA MFS

Gregory Wild – F&R NSW

Gwynne Brennan – CFA

Karen Enbom – CFA

Sandra Barber – TFS

Amanda Leck - AFAC

John Richardson – Red Cross

Michelle Coombe - Safecom

Phil Canham – ACT ESA

Trent Curtin - MFB VIC

Wendy Kelly – AGD

Suellen Flint – DFES

Tracey Leotta – DFES

**THANK YOU** 

#### SUMMARY OF OUR RESEARCH TEAM

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#### THANK YOU