



# IMPROVING THE ROLE OF HAZARD COMMUNICATIONS IN INCREASING RESIDENTS' PREPAREDNESS AND RESPONSE PLANNING

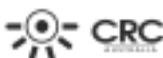
**Dr Ilona McNeill and Prof Jennifer Boldero**

The University of Melbourne

Bushfire and Natural Hazards CRC

**Annual Report 2014**





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## **Project Overview**

The increasing frequency and complexity of natural hazards poses a challenge for community resilience. Communication and education of risk mitigation strategies play an essential role in building and maintaining resilience through preparation and planning by residents. However, little is known about the relative effectiveness of existing hazard communications and education strategies (i.e., the extent to which they influence the amount and quality of residents' preparedness and planning behaviours for natural hazards). Also, to improve the baseline effectiveness of these strategies, we need to determine what some of the key barriers and enablers to preparedness and planning are.

This project combines expertise in communication, social and consumer psychology, and disaster and emergency management. It is designed to develop evidence-based strategies that motivate appropriate action during the preparedness and planning phase of disasters. More specifically, it will address the following problem statements: 1) what measures can best be used to capture individuals' preparedness and planning for hazards?, 2) how effective are existing strategies such as community engagement groups vs. brochures in increasing preparedness and planning by residents of hazard prone areas?, and 3) what are the (psychological) barriers and enablers of preparedness and planning by residents?

These problem statements will be examined through quantitative survey-based studies across Australia, with individual/household level preparedness and planning as the main outcome variables of interest.

By addressing these problem statements, the project will compare different existing communication and education strategies (e.g. community based groups, websites, brochures, etc.) to determine how strongly they are linked to different types of preparedness and planning by residents. In addition, the project will provide evidence-based recommendations for end-users about how to improve existing communication and education strategies.

## **Project Timeline**

The first stage of the project will continue until June 2017, with a second stage planned to continue until June 2020. A description of the first 4 phases (i.e., those of the initial stage until June 2017) is outlined below:

Phase 1: In the first phase, the focus will be on the development of the key dependent measures for the studies, namely preparing and planning for bushfires and floods. These measures will cover a variety of preparedness and planning types, so as to form a basis on which to compare individual households on how prepared they are for response to and recovery from bushfires and floods.

Phase 2: The second phase will use these dependent measures to examine the relative effectiveness of current education and communication strategies, such as the availability of community based information sessions, and providing information through websites and brochures, in increasing preparedness and planning for bushfires and floods.

Phase 3: In this phase the project will focus on identifying key psychological and/or behavioural barriers and motivators for people that will better prepare them for bushfire and floods. In other words, it will examine why some individuals or households are more motivated to prepare and plan than others, and why some individuals or households are more able to prepare and plan than others.

Phase 4: Finally, in the fourth phase of this first stage, the identified barriers and enablers will form the basis for the development of strategies designed to improve existing education and/or communication strategies.

## What's been happening

### Staff:

Over the past 6 months we have finalized the contracts between the University and the CRC, and have employed Dr Ilona McNeill as a fulltime staff member on the project (from May 26, 2014). In addition, we have advertised for and have found a Research Assistant who will be joining our team on August 5<sup>th</sup> on a .5 position.

### End-user engagement:

We have had regular contact with end-users and other projects in our cluster, including through email, through teleconferences, and through a 3-day gathering in Adelaide in March, since the project began. These contact moments have been used to align our project's focus with agency priorities and other projects in the cluster. This has resulted in the establishment of a hazard focus (bushfires and floods), a refined project management plan, and the establishment of measures of residents' preparedness and planning. This has brought us towards the end of Phase 1.

### Outcome measures:

The key outcome measures that will be used in this project are:

- **Bushfire preparedness:** A list of preparatory and planning action that was constructed in collaboration with a group of experts in 2013. The measure has since been published in the International Journal of Wildland Fire (see Dunlop et al, 2014).
- **Bushfire Planning:** A list of planning actions that was used in prior research by McNeill et al (working paper), which is currently under review at the Journal of Personality.
- **Psychological preparedness** (for both bushfires and floods): A list of items measuring three types of psychological preparedness, namely Physical/Cognitive/Emotional Ability, Connection, and Knowledge (based on Richardson, 2014). These items were derived from a larger measure of psychological preparedness that is currently being developed at the University of Western Australia. Some items have since been modified and expanded on based on feedback from our end-users.
- **Security** (for bushfires and floods): Items such as adequate insurance, an emergency kit, and access to enough food and water. These are all items related to the capacity to protect a person's/household's assets and livelihoods.

## List of current integrated project team members:

### Researchers:

- Dr Ilona McNeill (CI) – The University of Melbourne
- A/Prof Jennifer Boldero (CI) – The University of Melbourne
- Prof John Handmer – RMIT
- Prof David Johnston – GNS Science/Massey University
- Dr Paul Dudgeon – The University of Melbourne
- Prof Alex Wearing – The University of Melbourne

### End-users:

- Andrew Richards (LEU), NSW SES
- Anthony Clark, NSW RFS
- Ben McFadgen, VIC SES
- Fiona Dunstan, CFS
- Glenn Benham, SA MFS
- Jennifer Pidgeon, DFES
- Karen Enbom, CFA
- Sam(antha) Chard, AGD
- Sandra Barber, TFS
- Simon Goodwin, Safecom
- Trent Curtin, MFB

## References:

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Anxiety: Two Cognitive Pathways to Task Avoidance. Invited for resubmission  
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the Australian and New Zealand Disaster and Emergency Management  
Conference Surfers Paradise, Gold Coast (QLD), 5-7 May 2014.