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RESCUE

Emergency Management

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SOUTH AUSTRALIA'S DISASTER RESILIENCE NEWSLETTER

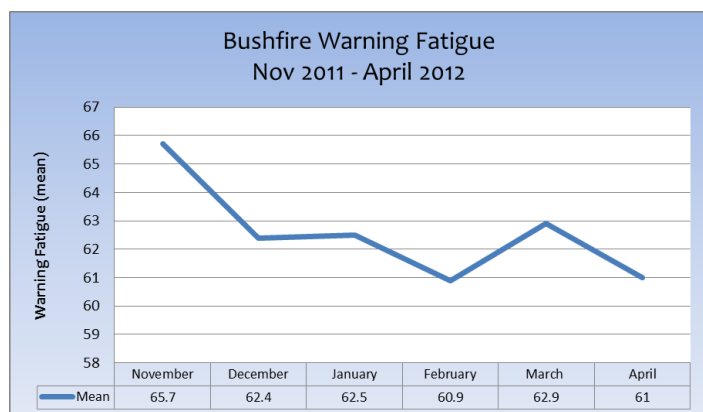
Warning Fatigue: The Missing Communication Link?

Recent research into warning response by Dr Brenda Mackie suggests that the phenomenon of warning fatigue (also known as the 'cry wolf' effect) may play a part in inhibiting appropriate preparation and warning response in the face of potential disasters.

Warning fatigue is a taken-for-granted phenomenon where individuals who are repeatedly warned about a potential hazard (which then does not eventuate) become cynical, apathetic and 'tired' of hearing warnings.

Warning fatigue is a problem which presents emergency agencies with a conundrum: they want to avoid the accusation of panicking the public but worry they may run the risk of under-preparing them at the same time. As a result, they may be tempted to err on the side of caution, delay issuing a warning and downplay the possible severity of a potential hazard. The rhetoric that followed the recent winter storm Juno (that failed to deliver the predicted snowfall for New York in January this year), shows the challenges that emergency agencies face.

Through an evaluation of existing literature and interviews with people living in bushfire-prone communities in Tasmania and Victoria, Dr Mackie developed a Bushfire Warning Fatigue Measure and showed that, over a bushfire season, the level of warning fatigue changed. Interestingly, it was expected that warning fatigue would increase over a fire season due to warned-about bushfire events not happening as predicted; however, the results found that warning fatigue was highest at the beginning of the fire season.



The reason for this result is suggested by Dr Mackie to be a result of official and unofficial warnings (media stories for example) in the preceding winter months, so by the time the official bushfire public education programs begin prior to the bushfire season, the public is weary of the bushfire rhetoric and 'react' to the spectre of 'yet another catastrophic' bushfire season.

The findings of Dr Mackie's four year research project showed that there were five factors that, in some scenarios, can combine to produce a warning fatigue effect. They were: trust (in authorities) and their perceived credibility, false alarms, over-warning, scepticism and helplessness. She suggests that if disaster and emergency agencies are concerned that their communities may be vulnerable to a warning fatigue effect the following recommendations may be useful.

- **(Trust)** - It is important to pay attention to the relationships between the emergency agencies and the community because the credibility of the warning source leads to greater trust in the veracity of the warnings.
- **(False Alarms)** - When warning the public about a potential hazard, it is important to take into account the false alarm rates for similar disasters in the past. Moreover, when a false alarm happens, it is imperative to explain to the public why the 'near-miss' happened. 'Near-miss' events can desensitise the public to subsequent warnings, and 'missed events' are more likely to be seen as false alarms. People also presume they have withstood and prevailed against these events because of their actions, rather than acknowledging the part that good luck (rather than good decision-making) played in the outcome.
- **(Over Warnings)** - Warnings are sometimes interpreted by the public as 'happening too often' with the inference being that they are unnecessary. Disaster and emergency agencies must tread a fine line between over-warning and under-warning - it is neither an enviable task nor an exact science.
- **(Scepticism)** - People become sceptical as a result of the above factors, combined with their own evaluation of their situation, their knowledges about their environment, their assessment of their ability to cope, the actions they took in a previous threat event (and the outcomes) and the resources available to them to cope.
- **(Helplessness)** - People often can feel helpless and unable to do anything useful in the face of imminent disasters of frightening proportions. Warning messages therefore need to include actions that people can take to prepare and defend themselves.

Dr Mackie's research shows that if emergency and disaster agencies understand the complexities of warning fatigue and design their warnings accordingly, then disaster risk communication will become more effective, increasing public engagement, improving personal preparation, and building community resilience to future disaster events.

Other reading:

http://www.bushfirecrc.com/sites/default/files/managed/resource/fire_note_122_low_res.pdf

<http://ir.canterbury.ac.nz/handle/10092/9029>

<http://www.weather.com/storms/winter/news/winter-storm-juno-wrong-forecast-bust-new-york>

For more information please contact Dr Mackie: bmackie10@gmail.com



Each decision and action makes us more vulnerable to disasters – or more resilient to them. Thus disaster risk reduction involves every part of society, every part of government, and every part of the professional and private sector." United Nations International Strategy for Disaster Reduction.



South Australian partnership in all hazards research centre

South Australia is a leading partner in a \$130 million research centre that draws together all of Australia and New Zealand's fire and emergency service authorities and governments.

The Bushfire and Natural Hazards Cooperative Research Centre (BNHCRC) began in 2013, as the Bushfire CRC drew to a close after a decade of bushfire-focused research.

The BNHCRC represents an important long-term investment into emergency management for South Australia.

The BNHCRC was announced in February 2013 by the Prime Minister, and commenced operating on 1 July 2013, with an eight year life. It is due to finish operating (with current funding) on 30 June 2021.

The BNHCRC is not a government agency but an independent company with its own staff, board and funds. The 'shareholders' of the BNHCRC are the research and industry partners, which includes the South Australian Government. The Chief Executive of SAFECOM, David Place, is a board member.

The total expenditure of the CRC is \$130 million over the eight years, including both cash and in-kind contributions from researchers and the industry partners (known as 'end users'). The South Australian Government contribution is a total of \$4 million over the eight years.

It is recognised that the BNHCRC will be a driving force behind all significant research in the emergency management sector until 2021, and the South Australian government is seeking to participate fully to ensure the research outcomes are of the most benefit to South Australia.

Research of the BNHCRC (<http://www.bnhcrc.com.au/research>) seeks to cover all natural hazards, including fire, flood, storm, earthquake, heatwave and cyclone, and address long-term national issues raised by end users.

The research program consists of 39 research projects, grouped into 12 research clusters and three research themes. The clusters and themes are illustrated below.

The research covers a broad range of projects, including:

- physical sciences of fire behaviour, coastal inundation and improving monitoring and prediction
- measuring community resilience
- communicating and warning information to the community
- hardening infrastructure to reduce losses from earthquake, storms and floods
- improved decision making for emergency services in times of response

- improving the sustainability of volunteering, and better understanding the spontaneous 'out of uniform' volunteer
- better estimation of historic losses from natural disasters
- improved tools for making strategic decisions on mitigation and risk reduction, and
- institutions and governance to improve emergency management.

Each project is represented by a team of researchers and 'end users', who regularly meet to guide the project and its outcomes. The outcomes of the projects are driven by the needs described by the 'end users'.

The variety of BNHCRC research topics has resulted in a similar variety of South Australia Government agency participation, including:

- SAFECOM,
- Premier and Cabinet,
- Communities and Social Inclusion,
- Planning, Transport and Infrastructure,
- Environment, Water and Natural Resources
- SA Water,
- CFS,
- SES, and
- MFS.

In addition, the University of Adelaide and the Adelaide-based campus of Central Queensland University are both active research partners along with commonwealth organisations including the Attorney-General's Department,

Bureau of Meteorology and Geoscience Australia.

If you see a project you are interested in, wish to be a part of it, and have some time to contribute, please contact the lead user representative, and get yourself on the project's mailing list. Most participation is by email and teleconference, with the occasional meeting at events like the Research Advisory Forum (RAF), held twice a year.

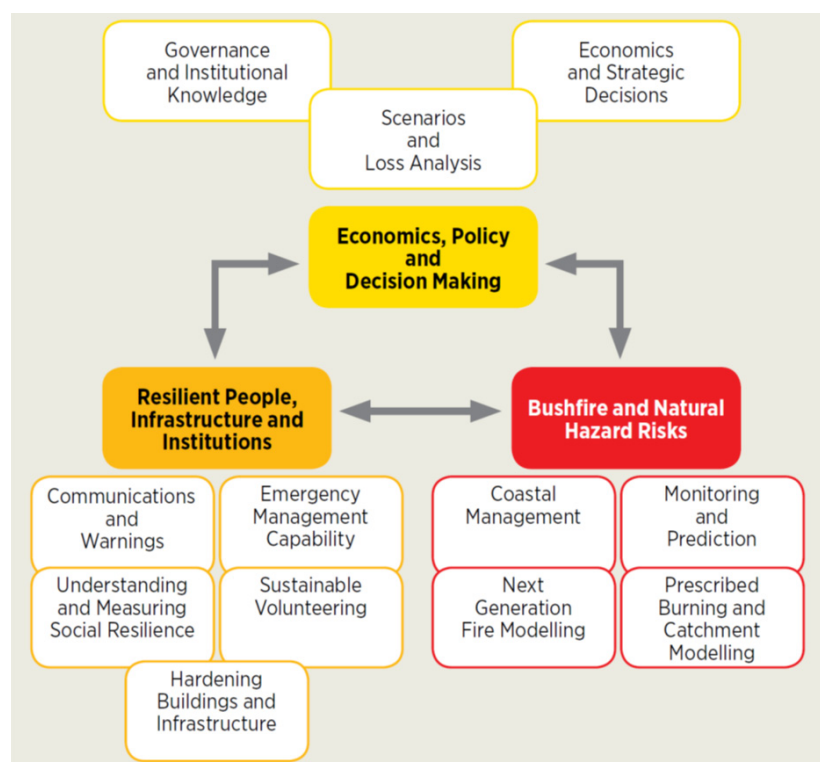
The CRC holds an annual conference jointly with the Australasian Fire and Emergency Services Authorities Council (AFAC) each September – this year the event is in Adelaide at the Convention Centre (<http://www.bnhcrc.com.au/events/2015-annual-conf>).

It is only by choosing to participate that you can ensure your view is included as part of the CRC's research outcomes.

Keep in touch with the CRC

Keep up to date with the Bushfire and Natural Hazards CRC by:

- visiting www.bnhcrc.com.au and subscribing to
 - o the Hazard News newsletter (<http://www.bnhcrc.com.au/hazardnews>) and
 - o the Hazard Notes briefings (<http://www.bnhcrc.com.au/hazardnotes>);
- liking us on Facebook (<https://www.facebook.com/bnhcrc>), and
- following us on Twitter (<https://twitter.com/bnhcrc>).





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SA recognises six outstanding resilience building initiatives

In October 2014, the SA Fire and Emergency Services Commission (SAFECOM) hosted the Resilient Australia Awards at the Adelaide Pavilion.

The Resilient Australia Awards are an initiative of the Commonwealth Attorney General's Department in collaboration with states and territories to recognise the outstanding contributions communities are making to disaster management. This includes risk assessment and mitigation, education, training and research, community awareness and engagement, along with response and recovery.

The awards winners as follows:

SA state winner recipient - Southern Adelaide Health Alliance (SAHA) – Where Do I Go?

SAHA developed a highly innovative and unique tool to guide the public in assessing their medical symptoms using a simplified version of the five tier Australasian Triage Scale and offers alternate options for after-hours medical and dental providers.

State highly commended award recipients:

District Council of Mallala – Coastal Settlements Adaptation Study

The Council, in consultation with UniSA and the Coast Protection Board, evaluated

the effects of rising sea levels on four coastal settlements in the council area. The study proposed cost effective, realistic and achievable adaptation strategies to cope with the anticipated changes in sea level, helping build community resilience to the predicted risks.

Kangaroo Island Council – Impact Assessment of Flooding in the Haines/MacGillivray Community

Outcomes of the Kangaroo Island Council's flood impact assessment and consultation process have led to a model for response and recovery for other protracted events in the future. Without doubt the process arising from the assessment has forged connectivity within the community, provided clear evidence for mitigation funding applications, and built resilience within the community.

Australian Red Cross – Aboriginal REDiSupport in the Flinders Ranges and Lower Eyre Peninsula

The Australian Red Cross, together with Indigenous communities within the Flinders Ranges and Lower Eyre Peninsula, have developed and delivered the program, which helps communities prepare for, respond and recover from a wide range of disasters, including bushfires, floods and car crashes.

State commended award recipients:

Natural Resources South Australia Murray-Darling Basin – Bushfire Recovery

The geographic location of the fires prompted action by the Board in assisting landowners with land management, and in particular the regeneration of bush, rehabilitation of pastures and the stabilisation of soils during the recovery phase.

Horse SA – International Large Animal Rescue Conference

Horse SA have been proactive and innovative in their approach to raising awareness and skills in large animal rescue by co-ordinating an International conference which provided an invaluable opportunity for participants to gain new knowledge and skills as well as providing a strong networking forum.

If you would like further information on the program or the 2014 award recipients, visit the SAFECOM website at the following link:

http://www.safecom.sa.gov.au/site/emergency_management/resilient_australia_awards.jsp



David Place, Chief Executive SAFECOM, Neil Head, Director, Community Awareness & Education Emergency Management Australia - Attorney Generals' Department, and award recipients.

Online EM course

The State Emergency Service (SES) has developed an online Introduction to emergency management course. This non-accredited training will help people gain an understanding of emergency management concepts and principles within a South Australian context and includes key elements from the State Emergency Management Plan. The course takes about two hours to complete but can be stopped and resumed at any point. It is open to anyone to complete but you will need to register to gain access. For further information and registration please email schmidt.stephan@ses.sa.gov.au.

National guideline for first responders for swift water

At the last meeting of AFAC Council a new national guideline titled Guideline for First Responders Attending a Swift Water Incident was endorsed. This was developed in consultation with SA State Emergency Service (SES) staff with significant input from Trevor Arnold and Brenton Clarke. The guideline is operational in nature, outlining the key responsibilities for each function and educating 'first-on-scene' responders about the major factors to be considered in undertaking swift water response. The guideline is consistent with our existing swift water awareness and land based rescue package and is available on the AFAC website (<http://bit.ly/1wUyMgM>).



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Premier emergency management conference comes to Adelaide

This year Adelaide will host the largest and most important emergency services and public safety conference in Australasia.

Held at the Adelaide Convention Centre on the banks of the iconic River Torrens, the theme for this year's AFAC and Bushfire & Natural Hazards CRC conference is *New Directions in Emergency Management*.

The approach to emergency management is rapidly evolving, and with it the need for better knowledge and understanding. Driven in part by the escalating cost and complexity of major incidents, the emphasis is shifting towards a holistic view that encompasses research, readiness, risk reduction, response and recovery. At the same time, our emergency agencies are being comprehensively reformed to improve their effectiveness before, during and after major events.

This conference will provide an opportunity to discuss and share new approaches in an all-hazard emergency management environment, and work together to examine sector reform, the challenges and opportunities of 'shared responsibility', and seek out new and engaging ways to partner with the community, researchers and the sector to foster and build disaster resilience.



Conferencing activities have been scheduled across four days to allow delegates to explore the conference theme and topics.

On Tuesday, 1 September the all-hazards research forum will showcase why research and innovation are vital precursors for safer communities and better environmental management.

"The 2014 Research Forum, our first, was a sell out. It is great to see the industry interested in the research that is underway. The 2015 conference will again see Bushfire and Natural Hazards CRC research on show, helping emergency management agencies across Australia and New Zealand find ways to use science to make our communities safer. Excitingly, a number of new initiatives have also been planned for Adelaide to further expand the reach of this research," said Dr Thornton, CEO of Bushfire and Natural Hazards CRC.

Following on from the Research Forum, Wednesday and Thursday will see delegates participate in the two-day main program. With close to 60 sessions scheduled, this will be an opportunity for delegates to gain valuable insight into best practice approaches to emergency management. Presentations will focus on research utilisation, case studies, policy and practice. The program will further be augmented by the 6000 square metre conference exhibition space which will feature over 90 leading industry manufacturers and the highly valued conference posters.

"The conference brings together representatives from emergency management agencies across Australia, New Zealand and the Pacific so that as a region we can jointly discuss current issues impacting the sector. By sharing our knowledge and experience, we can continue to develop the capability of our industry across Australasia," said AFAC CEO, Stuart Ellis.

Six post-conference development sessions will cap off the week. These sessions will provide delegates with the opportunity to participate in master classes and workshops or travel to some of the area's more complex sites for further learning opportunities.

Don't miss the opportunity to be part of the leading knowledge-sharing event for emergency services, fire and land management. Earlybird registrations open on Tuesday, March 10.

For more information about the conference including conferencing activities and speaker profiles visit www.afac.com.au/conference. You can also stay updated via twitter - #AFAC15

Throughout the conference delegates will hear from a wide range of leading international and Australian experts, with more than 90 sessions scheduled across the four days. Speakers already confirmed include:

- Trefor Munn-Venn - President and Chief Executive Officer, Rhapsody Strategies, Canada
- Rowan Douglas - Chief Executive Officer, Global Analytics - Willis Group, UK
- Dr Paul Willis, Director, RiAus
- Dr Bill Griggs - Director - Trauma Service, Royal Adelaide Hospital
- Mark Finney - Research Forrester, US Forrest Service, USA
- Paul Boissoneault - Fire Chief, Canadian Association of Fire Chiefs, Canada

Delegates consider risk communication at symposium

Delegates enjoyed a quality line up of speakers at the 2014 Zone Symposium in December. The speakers presented on a number of case studies and explored the theme of communicating risk from different perspectives. This provided delegates with an insight to some of the successful campaigns and considerations when communicating risk to the public.



Keynote Speaker Mara Bun from Green Cross Australia, chats with Ed Pikusa, Chrissie Bloss, Fern Raintree and John Nairn at the 2014 Zone Symposium.

International Recognition for ZERMS project

Presentations at the Third World Conference on Disaster Risk Reduction in Japan will highlight the success of the Zone Emergency Risk Management System (ZERMS) project as an example of Australia's implementation of the Hyogo Framework for Action (HFA). A delegation from Australia, including SAFECOM's David Place, will travel to Sendai in March, 2015. ZERMS is the case study being used to showcase the governance and decisionmaking using ISO 31000 (NERAG) as Australia is considered a world leader in this space. More information on the conference <http://www.wcdrr.org/>.