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Government
of South Australia



RESCUE

Emergency Management

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SOUTH AUSTRALIA'S DISASTER RESILIENCE NEWSLETTER

Are you prepared for the heat this summer?

Whilst many Australians have firsthand experience of the impact and effects of extreme temperatures, there are many who remain unconvinced that there is actually an issue or that they personally should do anything to prepare.

Indeed, many people would be surprised at the recent findings from Macquarie University scientist Lucinda Coates and her colleagues. It states that extreme heat has been responsible for over half of all listed natural hazard fatalities in Australia from 1900 to 2011.

Nationally states and territories are responding to the challenge and are examining how to better manage heatwave risks.

In South Australia, the State Emergency Service (SES) plays an important and unique role as Hazard Leader and Control Agency for extreme heat. It partners with a host of government and non-government organisations to improve understanding of risk, increase community resilience and preparedness and minimise impacts during heatwave events.

The SES is responsible for issuing Extreme Heat warnings to the community when pre-determined triggers are met.

Here are some simple things you can do to reduce the impact of extreme heat:

- **Stay Hydrated** – you should drink two to three litres of water a day even if you don't feel thirsty. Avoid "fizzy", alcoholic and caffeinated drinks and do not take salt tablets (unless instructed to by a doctor)
- **Dress For Summer** – lightweight, light coloured clothing reflects heat and sunlight and helps your body maintain a normal temperature
- **Check On Those At Risk** – visit at-risk individuals such as the sick and elderly at least twice a day and keep an eye on children. Watch for signs of heat-related illness
- **Minimise Sun Exposure** – keep out of the sun as much as possible. If you must be in the sun, wear a shirt, hat and sunglasses. Also make sure you wear sunscreen to prevent sunburn, which limits the body's ability to cope with heat
- **Prepare Your Home** – Prepare your home early. Service or replace your air conditioner BEFORE you need it. Curtains, awnings and blinds can also help to keep the home cool
- **Make Use Of Air Conditioning** – if you don't have air conditioning, make use of public facilities such as shopping centres, art galleries, cinemas or other air-conditioned buildings. Portable fans are also useful in drawing in cool air, or exhausting warm air from a room
- **Never leave children in the car** - Babies and children can overheat very quickly in cars. The temperature inside a parked car can be 30-40°C hotter than outside the car.

- **Remember Your Pets** – pets can be particularly vulnerable to the heat. Make sure they have shade and plenty of cool water to last the day
- **Seek Medical Advice If Necessary** – for medical advice telephone Healthdirect Australia on 1800 022 222. For immediate medical assistance telephone 000

With global warming resulting in rising temperatures, extreme heat events, resulting in summer heatwaves will become more common and a part of life in Australia.

Are you prepared for the heat?

DRINK WATER

2-3 litres a day



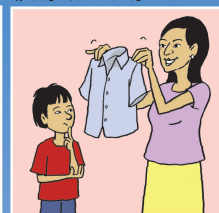
PARKED CARS

Never leave children or pets in the car



CLOTHING

Wear light fabrics and light colours



CHECK THOSE AT RISK

Elderly and the sick twice a day



... also remember

FALLING BRANCHES
Avoid parking your car or setting campsites under trees – over-hanging branches can drop during the heat.

PREPARE YOUR HOME
Close blinds and curtains to block out the heat and check air-conditioning before the start of summer.

AIR-CONDITIONING

Libraries and public buildings



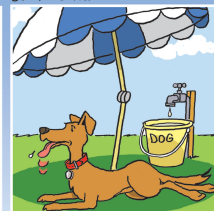
EXPOSURE

Be sun smart



PETS

Care for animals



MEDICAL HELP

Details below or see your GP



Important contact information

For medical advice telephone
Healthdirect Australia
1800 022 222

For immediate medical assistance telephone
000

For SES response telephone
132 500

For life threatening emergencies telephone
000

For further information go to
www.ses.sa.gov.au



SA State Emergency Service extreme heat information

It is important that we prepare for heatwaves to ensure that we stay safe and well during these times.



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.



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The Natural Disaster Scenarios Project

The Natural Disasters Scenarios Project is a Risk Frontiers project funded by the Bushfire and Natural Hazards CRC. Its premise is that realistic disaster scenarios help us to better understand disasters. They allow end-users to visualize potential impacts before disasters happen and proactively plan for these events. In this project, realistic disaster scenarios are being developed using catastrophe loss models so that vulnerable areas, utilities and assets within our major cities can be identified.

The scenarios will quantify the impacts on society, critical infrastructure, lifelines and buildings, and the natural environment. This information will allow end-users to understand the implications of these events for their agencies and their industries so they can better prepare for, or mitigate the impacts of events that are beyond their experience.

The results of the first project which is an earthquake loss scenario, were presented at the AFAC Conference in Adelaide earlier this year by Valentina Koschatzky, Felipe Dimer de Oliveira and Paul G Somerville. An overview of the project is presented below:

What if a large earthquake hit Adelaide?

Despite its low seismic activity, Australia is more vulnerable to earthquakes than one would expect due to concentration of population and large stock of buildings that are structurally unable to withstand even moderate seismic shaking in areas of earthquake risk.

This was demonstrated by the 5.6 magnitude earthquake that occurred in Newcastle in 1989, one of the most costly natural disasters in Australia, despite its low magnitude.

One question elicited by these circumstances is: What would happen if one of Australia's main cities were hit by an earthquake similar to Newcastle's? An example of a near miss is offered by the magnitude 5.4 earthquake that struck Adelaide in 1954, whose epicentre, far from developed areas at the time, would lie in densely developed areas if it were to occur today. Providing realistic estimates for natural disaster scenarios is essential for emergency managers.

In this work, the researchers will present the first results of the Bushfire and Natural Hazards CRC project for developing natural disaster scenarios using the city of Adelaide as a case study. They have developed and implemented a methodology to estimate losses to property, life, infrastructure and essential facilities based on the model put forward by the US Federal Emergency Management Agency (FEMA). This methodology was used to estimate the consequences of an event similar to the 1954 Adelaide earthquake. The results of this exercise are presented as maps showing the distribution of casualties, losses and likely damage to infrastructure and essential facilities.

The full paper can be accessed at the following link:

<http://www.bnhcrc.com.au/publications/biblio/bnh-2077>

Bob Stevenson retires from SES



Bob Stevenson will move on from SES on 23 December 2015 after almost 13 years as the State Emergency Management Planning Officer.

Bob commenced his career as a teacher at Maitland Area School in 1975, having completed a Bachelor of Education Degree in Physical Education at Flinders University.

After twenty years teaching at Maitland A.S., The Heights School, Modbury, Augusta Park H.S. at Port Augusta and at Parafield Gardens High School, Bob took up a position with Australian Red Cross as the Membership Services Officer.

Bob spent 8 years with Red Cross in five different positions, finishing up as Disaster Services Officer.

This position provided Bob with the knowledge, skills and experience to successfully apply for the position of State Emergency Management Planning Officer in 2003, a position he has held until the present day.

Bob has worked on the development of the State Emergency Management Plan, numerous State and Zone plans and his advice has been sought on many aspects of emergency management in SA.

He sees the planning and development of the Zone Emergency Management Committees and the very successful Zone Emergency Risk Management System as areas where he has made significant contributions.

"I would like to think that I have contributed to a much better understanding, both within the SES and in the wider emergency management community in SA, of what emergency management and emergency risk management means."

For many years Bob was involved with Community FloodSafe and he played a key role in the establishment and development of the SES Community Engagement Unit.

Bob has a passion for involving the third tier of government, Local Government, in all aspects of emergency management. He has been able to achieve this to see a much greater contribution from Local Government in Zone Emergency Management Committees, Zone Emergency Risk Management, community engagement, emergency response and risk mitigation.

Bob has thoroughly enjoyed his time with SES and will enter retirement with many fond memories of his time with this important and highly effective organisation.



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Who's vulnerable now?

Reducing vulnerability – a resilience and strength-based approach

The Australian Government has recently published a report entitled *Vulnerable Sections of Society (an emergency management perspective)*. Tony McLoughlin (SAFECOM) represented South Australia on the national working party that researched this topic over 12 months. The key findings are thought-provoking and may question our assumptions.

The 2009 Victorian Bushfires Royal Commission found that particular demographic groups within the community (the elderly, young people and people with medical conditions) were over-represented in the mortality figures and were more likely to have longer term negative impacts. Whilst targeting demographic groups can assist decision-makers to quickly identify potential people with vulnerabilities, the demographic concept of vulnerability as a "one size fits all" may lead to poor targeting of services and support. Not all people in these

groups are vulnerable, and others who are vulnerable may not fit a neat demographic category.

Assuming all people over 70 are vulnerable ignores the fact that they may have good health, be well off, and/or have good family support. A person who does not fit a demographic category may have had recent major surgery and be temporarily reliant upon others. Vulnerability is contextual and fluid. Instead of specifying vulnerable sections of society, a resilience and strength-based approach also takes into account factors that cause vulnerability. That is, if the following adaptive capacities are disrupted, breakdown or simply don't exist:

- **Wellbeing** – a good health status and the ability to cope with challenges of life and disruption of emergencies.
- **Connection** – good community networks, trust in local institutions, local services, connections to place and participation in local community.

- **Security** – protection against loss of assets and livelihoods, maintaining personal safety and shelter. One of the biggest challenges for preparedness and recovery is financial capacity.

- **Knowledge** – of hazards and local history, and the ability to access information to make informed decisions, eg; hazard profile profiles of the local area, local emergency plans.

The full report will soon be available on the EMA Knowledge Hub at www.emknowledge.gov.au.



Engaging CALD Communities

Risk communication with new and emerging culturally and linguistically diverse (CALD) communities: Our lesson in 'colearning'

Australia is one of the world's most culturally and linguistically diverse nations. However, some new arrivals experience a settlement transition phase as they become familiarised with their new cultural, environmental and social contexts. This transition phase can also pose communication challenges, and these challenges are particularly salient in emergency situations, where information from emergency agencies is critical to enabling protective action.

Recently, communication research has underscored the need for communication strategies that meet the needs of CALD communities. This body of research strongly suggests that communication strategies should, if they are to be effective, consider how receivers' access, perceive and interpret information, whilst accounting for community norms and values.

To demonstrate how these ideas translate into communication practice, our research team worked closely with the African Community in Adelaide to develop a short film: *Basic fire safety in the home for the African community*. We employed a 'community-based participatory research' (CBPR) approach, which prioritises collaborative partnerships between researchers/communication practitioners and communities to devise a culturally suitable communication resource.

The CBPR approach also prioritises the idea of *colearning* between researchers/practitioners and community partners. The idea of *colearning* assumes that researchers and practitioners have as much to learn from the community as the reverse. Indeed, our experience taught us that the community is integral to understanding what sociocultural factors might be contributing to the risk of house fires. The community were of course, the experts on the topic of what was happening in their community and, accordingly, they needed to



be *front* and *centre* of anything we did. In practice, this meant that important decisions about the film's script, themes, and actors, were all made in collaboration with a panel of African leaders. Ultimately, because of this participation, the community viewed the film as their own, which facilitated its uptake and dissemination.

Undoubtedly, developing communication resources with new and emerging CALD communities can be time-consuming and resource intensive. Nonetheless, mobilising community involvement in the process is key to ensuring that messages are shaped and disseminated in forms that meet the needs of Australia's multicultural population, promoting their capacity and resilience in emergencies.

The DVD can be viewed here: <https://vimeo.com/136882841>

This project was funded by an NDRP grant (NDRP-1213-35) administered by SAFECOM and the Australian Attorney General's Department.



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Fire Fighting in Northern America

On Monday 6 July 2015 David Nugent, Parks Victoria and Ian Tanner, Department of Environment Water and Natural Resources (SA) arrived in Winnipeg, Manitoba, Canada. With only a few days notice they had been sent forward to support the establishment of arrangements between the Canadian Interagency Forest Fire Centre (CIFFC) and Emergency Management Victoria (EMV). The agreement would see 47 Australians deployed into Alberta and 52 into British Columbia from Emergency Service Organisations around Australia.

The U.S. provided 100 fire fighters, New Zealand 16 and South Africa were in the process of arranging 48. Mexico supplied two liaison officers to investigate support options.



Due to similar work systems, Australia is well placed to assist with forest fires in North America.

The Canadian working environment is often 'picture post card', and comes complete with big things, such as bears, that place us further down the food chain than we are used to.

In Canada they 'cut guard' while Australians build control lines. We might deploy a portable dam to provide water for fire crew while the Canadians will ask us to set up a 'pumpkin'.

Fire appliances are rare on a Canadian fire ground while hoses and portable pumps are used in numbers almost unimaginable to Aussies. 38mm forestry hoses can be found piled up by the truckload waiting for some poor soul to come and clean, roll and box them up for the next deployment.

When forest fire fighting in North America, fire fighters stay in tents near the fire, sometimes experiencing very cold overnight conditions, only to then have to venture into the Muskeg (Canadian swamp).

Since the year 2000, hundreds of Australian fire fighters have been deployed, providing support in North America, where increasing fire frequency and scale has created a much greater demand in recent years.

A North American deployment is a great experience but in addition to having a valid passport, anyone wishing to be involved must meet the qualifications and fitness standards that apply to all forest fire fighters. Check with your organisation about the practicalities of a Canadian or US posting.

You're hacked!

Exercise Team Spirit 2015, the annual exercise to practice South Australia's emergency management arrangements, was conducted on October 21 in the SA Police Academy Auditorium at Taperoo.

Under the guidance of the Central Exercise Writing Team (CEWT) the 80 participants representing each of the 14 Functional Services exercised their objectives in accordance with the SEMP and their Functional Service plans.

The exercise scenario focussed on a significant terrorist related cyber-security emergency with state-wide impacts, and while this was fictional it is entirely plausible. This was complicated by an extreme heat warning which was in place for an extended period of time.

The day commenced with a number of presentations which identified current global and Australian practices and trends and set the scene for the day, they were from:

- Public Information Functional Service;
- CERT Australia (the cyber security and computer emergency response team);
- ASIO (the Australian government intelligence agency) and
- Office for Digital Government (ODG),

the Control Agency for ICT failure in South Australia.

Scenarios included power outages, internet connectivity problems, media involvement, messages of intent from the fictional South East Asian Cyber Caliphate, SA Government IT system and phone outages, road traffic systems and other transport problems, waste water and sewage overflow and multiple vehicle accidents.

Functional services considered the effects on their role and responsibilities over the increasing timeframes and degree of difficulty, and reported their capability and issues of

concern to the group. This led to further discussion about how the situation would be managed, reported to the State Crisis Centre and communicated to the community. Recovery from an emergency such as this was also discussed.

The keen interest and participation from all involved has enabled important lessons to be identified that will benefit whole of government emergency management planning and preparedness into the future. A debrief was conducted on November 11. A report is to be prepared and presented to the State Response Advisory Group.

