DISASTER RESILIENT AUSTRALIA

Government of South Australia

SES RESCUE

Alert SA — What's happening?
www.alert.sa.gov.au

After suffering critical service failures during the peak of the bushfire season, the Alert SA app and website were decommissioned. Concerned with providing the community with potentially unreliable information, the South Australian Government believed ceasing the Alert SA service was in the best interests of the South Australian Community.

The Alert SA website has been updated to assist the community with transitioning from the Alert SA service to alternative sources of reliable information. The website provides direction on who to contact in the event of an emergency or to find out information on service disruptions. This includes contact details such as phone numbers, websites, and social media for the Emergency Services Sector and other government agencies who provide essential services.

Demand is high for an all hazards emergency information and warnings service. South Australian residents and visitors relied on the Alert SA app and website. In addition to this, businesses and government agencies actively used this service to monitor incidents and events in their day to day duties which in turn aided the services they provide.

Since the Alert SA service was decommissioned, the CFS, MFS, SES and SAFECOM have been working together to determine the best approach to deliver an Alert SA replacement app and website. With a sense of urgency, an Alert SA Replacement project was established and is currently well underway.

In addition to building a public facing app and website, a sophisticated "back end" system is required to drive and support these functions. A system capable of handling large amounts of information and delivering and presenting this in a timely manner is essential, especially during an emergency event. As such, stability and reliability are key focuses of the Alert SA replacement solution.

A number of procurement documents have been produced and are in the process of being finalised – this includes a business case and preliminary requirements. Contributing to this documentation will be feedback from the market who have been approached to gauge the extent of work and cost involved for a replacement solution.

As the project progresses, the aim is to engage the most suitable vendor(s) to develop the entire solution, which includes the look and feel, the app and website, and the system which drives and supports these functions and features. A balanced and well managed approach is essential to implement a replacement solution as quickly as possible, while delivering a product which will work well, be reliable and meet the needs of the South Australian Community. As such, several releases may occur, firstly providing information on emergency events, and gradually adding other features and information services as the product matures.

If you would like to know more about the Alert SA Replacement project, please contact the Public Information and Warnings team at alertsa@sa.gov.au.

Developing a Disaster Resilience Strategy

SAFECOM is midway through the development of a Disaster Resilience Strategy for South Australia. Working with the Department of the Premier and Cabinet, SAFECOM is applying User Centred Design (UCD) to the process. This essentially means working closely with and considering the needs, wants and limitations of the 'users' through the whole process. As disaster resilience is considered everyone's responsibility, a challenge of this project has been the broad range of stakeholders to involve – essentially all sectors of society. Luckily there has been no shortage of people wanting to participate with over 500 people involved, representing community members, government (local and state), non-government organisations and businesses contributing to the research.

What did we learn? The data was grouped into 34 themes with the top ten findings being:

1. Information needs to be accessible
2. There is a lack of planning (at a household and business level)
3. There needs to be a shift in responsibility (supporting and defining a stronger role for community)
4. Our culture, attitudes and behaviours are barriers
5. Messaging needs to be engaging and constructive
6. Communities need to be connected and support each other
7. We need to learn from the past and make evidence based decisions
8. We need to listen to and engage with communities
9. Critical infrastructure doesn't meet expectations
10. Training and education strengthens resilience

Where to now? Over forty concepts and ideas have been developed that address the research findings. One idea proposed is to work with communities to design a model supporting community leadership to increase resilience at a local level. When aligned to the research you can see that this would address elements of themes 1,2,3,4,6,8 and 10.

The team is currently meeting with a broad range of stakeholders to see which ideas are considered viable and included in the Strategy as recommended projects to build the disaster resilience of the State.

If you would like further information, or to see the mid-term presentation and research, please contact Miriam Lumb, Project Manager, miriam.lumb@sa.gov.au.

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.

Animals in Emergency Planning

Pets and livestock need to form part of emergency management plans

Research shows that a lack of planning can result in poor outcomes for animals and may lead to people putting themselves (and others) at risk trying to save animals at the last minute in dangerous conditions.

Under the National Planning Principles for Animals in Disasters, endorsed by South Australia in 2014, all agencies and organisations involved in emergency management should also include animal-related issues in strategic and operational plans.

To assist emergency planners and responders to understand key principles for incorporating animal issues into plans, along with information on who supports emergency management of animals in South Australia, Primary Industries and Regions SA (PIRSA) has developed Managing Animals in Emergencies: A Framework for South Australia, implemented in January 2017.

The Framework, endorsed by the State Emergency Management Committee, forms part of the State Emergency Management Plan. It is available at: http://www.pir.sa.gov.au/animalsinemergencies/ PIRSA is now undertaking stage two of the Animals in Emergencies Project, part-funded by the Natural Disaster Resilience Program. This includes a review of animal emergency information available to the public so that it aligns with the framework, along with addressing recognised high-priority gaps in emergency arrangements for animals.

Don't forget about me!

The project will run until June 2018.

Current animal emergency planning information is available to the public via RSPCA SA (pets), Horse SA (horses) and PIRSA (livestock). These websites and other hazard information can be found within www.sa.gov.au/topics/emergencies-and-safety.

For further information contact Zita Fewster, Senior Animals in Emergencies Project Officer, PIRSA on 8429 0855 or via email zita.fewster@sa.gov.au.

Feeling Hot, Hot, Hot!

On Tuesday 6 February 2018 Resilient South in partnership with the State Emergency Services, Red Cross and Adelaide and Mount Lofty ranges Natural Resource Management Board hosted the hypothetical, **Feeling Hot Hot Hot!** Dealing with Heatwaves in Southern Adelaide. Held at the Marion Cultural Centre with a 255 seating capacity, the hypothetical sold out one week in advance.

The event was a unique way to engage with community members through lively, uplifting interactive conversations around climate change and heatwaves. The panel represented senior leaders from a diverse range of organisations, sectors and specialisations including health, education, emergency services, power distribution management, humanitarian, local government, natural resources, research and climate agencies.

Media identity Amanda Blair skilfully guided the panel of experts through a hypothetical based on an extended three week heatwave in the year 2025 with questions that raised increasingly complex challenges. The discussion focused around current planning that is in place, response practices, collaboration and community involvement. Cartoonist Simon Kneebone produced live cartoons responding to the themes raised during the evening.

Recent heatwaves both locally and internationally, as well as what constitutes a heatwave, were discussed, including the 2009 heatwave in South Australia. During this heatwave morbidity rates rose by 10% as well as a sharp increase in presentations to hospital with heat related illnesses. Apart from a lot of great work and planning that is already happening both at a state and local level in this space, it also became obvious that there are still some large gaps that need to be addressed. The lack of general understanding around the ways to stay healthy in the heat, social isolation as well as limitations due to financial restraints in keeping cool became apparent during the course of the evening.

Those most vulnerable in our community, the aged and children, those with mental health issues, on renal or cardiac medication and rough sleepers, are more at risk during an extended heatwave and will require specific planning and measures in place.

By: Simon Kneebone

Community members had an opportunity at the end of the scenario to ask questions. Issues were raised around the homeless, people in our prisons, planning questions in relation to urban heat islands, public housing and poor housing design, what actions the different councils were taking, climate change effects on native animals and plants, and what actions individuals can take at a local level.

Panellists ended the night with messages of hope highlighting some innovative actions already happening from replacing all street light LED globes to schemes that investigate donating excess solar units.

The panel included the following people; Bob Thiele, Principal Hackham East primary School, Craig Hobart, Club Development Coordinator City of Onkaparinga, Chris Beattie, Chief Officer SA State Emergency Service, Ian Cox Chief Executive Officer Hutt Street Centre, Frank Crisci, Emergency Manager SA Power Networks, John Nairn, State Director Bureau of Meteorology, Dr Larissa Nicholls, Research Fellow, RMIT University, Noel Bamford, Assistant Commissioner, SAPOL, Professor Paddy Phillips, Chief Medical Officer, SA Health, Rose Rhodes PSM, Chairperson SA Divisional Advisory board, Australian Red Cross, Sandy Pitch, Chief Executive Officer, Department of environment Water & Natural Resources, and Tony Lines, General Manager City Services, City of Marion.

Effective communication holds the key

Extreme heat has the potential to have a major impact on South Australian hospitals and health services. Encouraging our community to prepare for extreme heat can reduce the flow-on demand on these services.

SA Health's *Healthy in the Heat* communications plan aims to communicate how extreme heat can impact health, what symptoms to look for and what people can do to protect themselves.

The plan supports the broader whole of Government Extreme Heat communications plan, incorporating feedback from the South Australian State Emergency Service and the Bureau of Meteorology.

The 2017-18 communications plan was divided into two sections: general heat-related messaging; and Extreme Heat Watch or Warning messaging. SA Health used specific messaging at times when a Watch or Warning was issued to emphasise the importance and urgency.

Communications was heavily driven by social media. SA Health's social media channels, such as Facebook and Twitter, are very effective in communicating and promoting messages about heat-related illness.

Social media performance is reviewed each year to guide the planning and publishing of content. To attract more interest and improve reach, SA Health posts aim to educate, inspire or entertain. This strategy was applied, where possible, to heat-related social media. Interested parties were also contacted to share and retweet content. This resulted in an average reach of 36,023 per Facebook post and 4816 impressions per tweet for Watch and Warning posts combined.

Images, an infographic and animation were used during Extreme Heat Warnings for 2017-18. Social media during a Watch focussed on specific messages taken from overarching campaign materials, such as staying hydrated. These were not designed to reflect the creative used during an official Warning. This was to help prevent the perception that people are receiving too many heat-related messages and to reduce complacency to heat as a hazard.

Other tactics included email updates to staff from the Chief Public Health Officer, a screensaver for SA Health computers and TV screens (visible by staff and the public) within the agency's local health networks, graphics on SA Health's six intranet sites and public-facing website. The website graphic was developed in two different looks; one for use during times of preparation for hot weather, the other for times when an Extreme Heat Watch or Warning was issued.

ARE YOU DRINKING ENOUGH **WATER?**

VERY DEHYDRATED
Drink a large bottle of water **straight away**

DEHYDRATED
Drink 2 to 3 glasses of water **now**

SOMEWHAT DEHYDRATED
Drink a large glass of water **now**

HYDRATED
You are drinking enough water – keep drinking water at the same rate

Government of South Australia
SA Health

Communications activities were supported by a number of fact sheets, translated into 32 languages including English, and *Healthy in the Heat* guide, which was reviewed in 2016 to improve accessibility for people with low literacy.

The Healthy in the Heat webpage functions as a central source for all information associated with heat-related illness, and includes downloadable resources. Resources were developed in close consultation with relevant community and consumer groups, including Multicultural SA and Red Cross, and use simple and plain language.

….and RESEARCH PROVES THAT

A Heat health messages study

We all have heard and seen messages about extreme heat, but it is not clear whether these warnings necessarily change behaviour and lead to better outcomes.

The University of Adelaide, together with SA Health, studied behaviour changes and self-reported health effects in a group of older people in metropolitan Adelaide over the very

hot summer in 2014. Half of the participants received an information package explaining the potential physiological effects of extreme heat and practical tips about how to beat the heat (intervention group). The other half (control group) did not receive the information package. At the end of summer all participants reported about their experiences over summer.

Those who received intense information fared better with their health. They reported less heat stress and were happy with the health information they had received. When compared with the control group, they more often used their cooling system and used a wet cloth to cool down.

This study shows a positive outcome in behaviour and health effects when intensive warning messages are sent to older people at the beginning of summer.

The full article can be downloaded on the following website
http://www.mdpi.com/1660-4601/14/9/992/htm

Building a Resilient Australia The Australian Vulnerability Profile

Australia has a history of natural hazards, climate variability and extreme weather events. In 2015 the total economic impact of a range of events exceeded $9 billion or approximately 0.6% of gross domestic product. The Commonwealth Scientific and Industrial Research Organisation (CSIRO) and the Bureau of Meteorology (BOM) conclude that climate change will almost certainly increase the frequency and severity of natural disasters in Australia. Projections predict a rise to around $33 billion per year by 2050 unless steps are taken to increase resilience.

In response, Emergency Management Australia (EMA) is leading development of the *Australian Vulnerability Profile* (AVP). The Profile will inform a national narrative to enhance Australia's preparedness for severe to catastrophic events and articulate what makes Australia vulnerable to disaster when severe to catastrophic natural hazards impact what Australians value. It will contribute to a better understanding of where to target mitigation, develop policy and direct efforts to improve resilience.

To create the Profile the views of people from key government and non-government stakeholder groups and academic disciplines are being sought. This work will foster discussion, inform how we strategically prepare for long-term resilience and how we can reduce and manage systemic risks. It will challenge assumptions, test current thinking and encourage conversations about what triggers disasters, how we might best protect what we value and the steps needed to reduce suffering and loss.

The first AVP workshop, held in Adelaide on 2/3 November 2017, included participants from Commonwealth, state, local government and non-government agencies and organisations, academics, and community members who had previously been impacted by emergencies/disasters. CSIRO facilitators led participants through a structured process to explore *'What makes Australia vulnerable to disaster when severe to catastrophic events impact what people and society value?'*

A key element of the workshop was a catastrophic scenario developed by Geoscience Australia and the BOM. In metropolitan Adelaide in February 2021 during an intense and long duration heatwave with maximum temperatures in excess of 45C, a catastrophic earthquake occurs. The earthquake causes building collapses, transport and communications infrastructure failures, power outages, spot fires and multiple fatalities and injuries across a 30km by 14km area stretching from Glenelg to Golden Grove.

During the workshop the following issues were explored:
- Understanding the current context.
- Vision for living with natural hazards.
- Are we prepared for catastrophic disasters?
- Exploring vulnerability under plausible future catastrophic events.
- Identifying interventions.
- Eliciting narratives.

A further AVP workshop was conducted in Queensland in mid-November and another combined Western Australia/Northern Territory workshop was held at the end of February 2018. EMA is currently planning further engagement activities with the other jurisdictions.

The target date for delivery of the Profile is mid-2018. If you require further information please feel free to contact Brenton Keen brenton.keen@sa.gov.au or 81153920.

10 Actions A Climate Change Adaptation Plan

Emergency management will have an ongoing and heightened importance given the projected increase in the frequency and severity of extreme events such as heatwaves, storm surge exacerbated by sea level rise, intense rainfall and bushfires from the impact of climate change.

The Department of Environment, Water and Natural Resources (DEWNR) has been working with the emergency management sector to identify the ongoing risk and the need for the emergency management planning process to link and build upon current initiatives. The *State Emergency Management Committee* (SEMC) and its member agencies have been addressing climate change risk for some time through inclusion of climate change considerations in the SEMC *Strategic Framework and Plan 2017-2022* and other projects.

The state government has recently released the *Towards a resilient state: The South Australian government's climate change adaptation action plan. The state adaptation action plan* sets out 65 actions to help protect our economy, landscapes, and communities. The plan outlines measures that state government will embed into its planning and development processes, housing, energy, health and emergency services, and agricultural, coastal, water and environmental management.

There are ten actions relating to emergency management. These actions range from embedding climate change in the SEMC process, developing flood response plans and improving flood warnings, focussing on extreme heat, improving all hazard mapping and incorporating hazard and climate information into planning and building codes and hazard overlays, preparing a state disaster resilience strategy, and for schools to publish their emergency management plans. Many of these actions are 'everyday' business for the emergency management sector and others are new projects to be introduced.

More broadly, the adaptation action plan has a number of actions, which will require implementation across all government agencies, including undertaking a risk assessment of the impacts of climate change on services and programs, engaging Aboriginal nations in adaptation planning and mainstreaming adaptation action across all business.

The adaptation action plan builds on the common themes identified in the regional adaptation plans and aims to embed climate change adaptation considerations in all relevant areas of state government. The plan reinforces the need for collaborative action by all levels of government, business and community. A copy of the plan can be found at:

https://www.environment.sa.gov.au/files/sharedassets/public/climate-change/south_australian_government_climate_change_adaptation_action.pdf.pdf

Towards a resilient state
THE SOUTH AUSTRALIAN GOVERNMENT'S CLIMATE CHANGE ADAPTATION ACTION PLAN