**MC SPEAKING NOTES**



**Feeling Hot Hot Hot! Preparing for Heatwaves in southern Adelaide**

**SONGS playing prior to and after event:**

* **Feeling Hot Hot Hot!**
* **Hot in the City!**
* **The Heat is on**

## 7.00 Panellists to stage

Panel move to stage. Briefing with MC

## 7.10 – Audience enter theatre

MC calls everyone into the room. ‘Guys ! Come inside out of the heat!’

## 7.20 – Hypothetical Start

**SLIDE 1 - INTRO**

Welcome audience

**SLIDE 2 – SOCIAL MEDIA**

**SLIDE 3 – RESILIENT SOUTH**

Introduce Resilient South.

Partnering with SES, Red Cross and Adelaide and Mount Lofty Ranges NRM Board to deliver this event

**SILDE 4 – PANEL**

Introduce panel with sound effects.

Sound effects:

**Bob Thiele,** Principal, Hackham East Primary **[*‘Hey Teacher! Leave those kids alone!’* Another Brick in the Wall, Pink Floyd]**

**Craig Hobart,** Club Development Coordinator, City of Onkaparinga **[football siren]**

**Chris Beattie**, Chief Officer, SES **[Fire Engine Siren]**

**Ian Cox**, CEO, Hutt Street Centre **[Angels singing]**

**Frank Crisci**, Emergency Manager, SA Power Networks **[Electric wire buzz]**

**John Nairn**, State Director, Bureau of Meteorology ***[‘Thunder, feel the thunder Lightning and the thunder’* Thunder, Imagine Dragons]**

**Larissa Nicholls**, Research Fellow, RMIT University **[none]**

**Noel Bamford**, Assistant Commissioner, SA Police **[Police Siren]**

**Professor Paddy Phillips**, Chief Medical Officer, SA Health **[Ambulance Siren]**

**Rose Rhodes** PSM, Chairperson, SA Divisional Advisory Board, Australian Red Cross **[‘*In the arms of an Angel far away from here From this dark, cold hotel room, and the endlessness that you fear’* In the Arms of an Angel, Sarah McLachlan]**

**Sandy Pitcher**, Chief Executive, Department of Environment Water and Natural Resources **[‘Skippy, skippy, skippy the bush kangaroo.’ Skippy theme song]**

**Tony Lines**, General Manager, City Services, City of Marion **[Applause]**

**SLIDE 5 – CLIMATE CHANGE IMPACTS**

Climate change is already happening

Impacts in southern Adelaide

* More frequent, long-running and intense heat-waves!
* More Extreme Fire Danger Days
* Less rain but more intense storms and flooding
* Sea level rise, more coastal erosion and storm surges

**SLIDE 6 – SOUTHERN ADELAIDE 2024**

By 2024, the world is one degree warmer

**SLIDE 7 – TASSIE SOUNDS GOOD**

**SLIDE 8 - SOUTHERN ADELAIDE 2024**

Intense El Nino

Adelaide is preparing

***VIDEO PLAYS - BoM Summer Outlook***

DR. JOHN NAIRN:

* You’re the state director for the BoM and currently doing your PhD on heatwaves
* How do we define a heatwave?

CHRIS BEATTIE

* You’re the Chief Officer of the State Emergency Service
* The SES is responsible for coordinating the state’s response to heatwaves and other emergencies
* What are you putting in place in preparation for expected heatwaves in the summer of 2025?

**SLIDE 9-10 – WEEK 1. THE HEATWAVE BEGINS – 3-9 FEB**

***RECORDING: NEWS BROADCAST***

**WEATHER:**

*On Monday, 3 February 2025 the BoM announces that a* [*high-pressure system*](https://en.wikipedia.org/wiki/Atmospheric_pressure)*will start slowly moving over South Australia. Forecast temperatures for the week are in the high 30s.*

*The average daily temperature is forecast to exceed 40⁰C for at least Wednesday to Friday. This signifies the start of a heatwave event.*

*By the end of the week temperatures have remained high, with the forecast for the weekend now set to reach 41°C on Saturday and 43°C on Sunday.*

*The average daily temperature is set to exceed 32⁰C for seven consecutive days.*

**SLIDE 9 – WEEK 1. THE HEATWAVE BEGINS – 3-9 FEB – HOT CITY**

**IMPACT**

1. **EXTREME HEAT WARNING**

Three consecutive days with an average daily temperature above 32°C (for example, an average of 40°C daytime and 24°C night-time) triggers the SES to issues an Extreme Heat Warning.

CHRIS BEATTIE

* The SES is the hazard leader for the state
* What does an Extreme Heat Warning involve?

PROFESSOR PADDY PHILLIPS:

* What are the risks to health?
* Who is most at risk?
* How should communities respond?

1. **RED CROSS**

In response to the SES Extreme Heat Warning, the Department for Communities and Social Inclusion activate Red Cross to run the Telecross REDi service.

ROSE RHODES:

* You’ve volunteered for the Red Cross for many years
* Tell us more about some of your experiences with Telecross REDi and some of the other work Red Cross is doing around extreme heat and climate change.

1. **COMMUNITY EXPERIENCE**

DR. LARISSA NICHOLS:

* You have interviewed community members in southern Adelaide about their experience of heatwaves.
* How is this heatwave affecting them?

1. **SCHOOLS**

Public Schools are due to recommence after the summer break. Parents are eager to return to their normal routine. Many schools start contacting parents on Sunday night to advise that given forecast temperatures, school will be closed on days when the forecast maximum is 38°C or higher.

This criteria ends up being met every day during this first week of school.

BOB THIELE:

* You’re a principal at Hackham East Primary.
* What was the experience for you school having to close in the first week of term?
* What did you have to put in place?
* What was the experience of parents, students and teachers?
* What was it like trying to get in touch with all those parents? How did they respond?
* What are your school’s policies and procedures around extreme weather?

1. **HOMELESSNESS**

The high temperatures cause homeless people to suffer from heatstroke, dehydration and distress. The Department of Communities and Social inclusion issues a Code Red Plan (extreme heat rough sleeper plan) and assistance is provided to hundreds of people across the state.

Ian Cox:

* You head up the Hutt Street Centre, which we’re raising money for tonight
* What are homeless people experiencing during this heatwave?
* What does the Code Red Plan involve?
* What is the role of the Hutt St Centre?

1. **INFRASTRUCTURE**

By Friday, persistent high temperatures stretch the transport network too far. While upgrades had been made in response to previous extreme heat, the high temperatures cause air conditioning systems to fail on trams and trains. While there is no evidence of buckling rail lines, trains are asked to operate 20 km per hour slower than normal as a precaution. Ultimately the tram service is cancelled during the evening leaving many commuters stranded.

Meanwhile, the extreme heat causes “bleeding” of bitumen on older roads and traffic signal failure. Bleeding of bitumen is a safety concern because it results in a very smooth surface, without the [texture](https://en.wikipedia.org/wiki/Texture_(roads)) required to prevent [hydroplaning](https://en.wikipedia.org/wiki/Hydroplaning_(tires)). The bleeding also causes traffic jams and slower traffic, which slows the passage of ambulances and leads to cars overheating.

NOEL BAMFORD:

* How do police respond to the transport challenges and the hot, angry people stranded in the heat?

PADDY PHILLIPS

* How does the ambulance service manage the transport challenges?

TONY LINES

* You are the General Manager of City Services at City of Marion
* How does extreme heat affect council infrastructure?

1. **SPORTING and PUBLIC EVENTS**

The forecast temperatures exceeding 40⁰C over the weekend triggers the cancellation policy for many school and club sports such as cricket and tennis.

PADDY PHILLIPS:

* What are the health implications from exercising in excessive heat?

The heat policy for a number of elite sports does not prevent matches proceeding on the Saturday evening, when temperatures were still in the high 30s at kick off time. The AFLW go ahead with a game between Adelaide and Port Power at Norwood Oval and several players are identified as being “at risk”, with their core temperatures, physical and mental performance and hydration state monitored. The AFLW is criticised in the Advertiser on the Sunday morning for putting players at risk.

CRAIG HOBART:

* You’ve worked with sports clubs at a local and elite level
* What do you think of their decision to keep playing?
* Should the heat policies for AFLW be reviewed?

I was shocked to hear that there can be up to a 14°C difference between fake grass and irrigated turf and a significant difference between white rooves and black rooves.

CRAIG HOBART:

* Can you tell us about the heat mapping that Resilient South councils and other councils across Adelaide have been doing, what you’ve been finding and how you’re responding?
* What are sports clubs at a local and elite level doing to build their resilience to heat?

**SLIDE 11-12 – WEEK 2 – 10-16 FEB**

***RECORDING: NEWS BROADCAST***

**WEATHER:**

*On Monday 10 February 2025, the BoM upgrades its advice, forecasting maximum temperatures to stay above 40⁰C for much of the week.*

*The BoM announces that this is due to reinforcement of the* [*high-pressure system*](https://en.wikipedia.org/wiki/Atmospheric_pressure)*over the*[*Tasman Sea*](https://en.wikipedia.org/wiki/Tasman_Sea)*. A combination of an intense*[*tropical low*](https://en.wikipedia.org/wiki/Tropical_Cyclone)*located off the*[*North West Australian*](https://en.wikipedia.org/wiki/North_West_Australia)*coast and a*[*monsoon trough*](https://en.wikipedia.org/wiki/Monsoon_trough)*over*[*Northern Australia*](https://en.wikipedia.org/wiki/Northern_Australia) *has created ideal conditions for hot tropical air to be directed down over south eastern Australia.*

*On Sunday 16 February 2025, the 14th day of the heat wave, the temperature reaches 48.1*⁰*C, a new record maximum for Adelaide and the highest temperature ever recorded in an Australian capital city. The minimum overnight temperature only falls to 35*⁰*C setting another temperature record.*

**SLIDES 11 – 12 – WEEK 2 – 10-16 FEB – DOGS and HOT SUN**

1. **ENERGY NETWORK**

High energy demand puts pressure on supplies. In addition, electricity transmission is affected during the peak temperatures. To reduce the risk of power lines hanging dangerously low, power transmission is reduced. The ceramic insulators on power lines become less effective and the total electricity supply in the metropolitan area is reduced. Load shedding (or rolling blackouts) are instituted to protect key infrastructure which further enhances risks to vulnerable individuals and hinders the delivery of emergency services.

FRANK CRISCI

* You’re the Emergency Manager for SA Power Networks
* How are you responding to the high energy loads?
* How does extreme heat impact upon energy supply infrastructure?
* Why do we experience blackouts during heatwaves?
* What can community members do to help the system work effectively during these times?

DR. LARISSA NICHOLS:

* How are homeowners making decisions about their energy use during the heatwave?
* What is their response to the blackouts?

1. **LOCAL GOVERNMENT**

As the week wears on many at risk members of the community who do not have air-conditioning at home head to major shopping centres to seek refuge. One large regional shopping centre experiences high numbers of visitors trying to escape the heat, but because few are shopping, store management introduces a “no pay, no stay” policy, which is enforced by centre security.

Vulnerable members of the community then seek out cool refuges in local government buildings such as libraries and council offices. The operating hours for libraries are extended to ensure that residents are not travelling home in the late afternoon, which is the hottest part of the day.

TONY LINES:

* You are the General Manager of City Services at City of Marion
* How is council coping with the extra demand for council buildings?
* What are the other impacts of extreme heat for council services?
* What else is council doing to prepare and respond to climate change and heatwaves?

1. **URBAN DESIGN**

There is a 10°C difference in temperature between Willunga at the southern-most part of southern Adelaide and the City Centre. There’s also a 4°C difference between the parklands and the city.

PAUL DAVY:

* You’re an expert on urban design and resilience to climate change
* You’re on the state government’s Design Review Panel
* How does the urban heat island effect work?
* What can city planners and architects do to protect our infrastructure from the impacts of extreme heat?
* What are the design features that we can incorporate into our own homes and suburbs to keep them cool?

1. **PLANTS, ANIMALS and PEOPLE**

The impact on native animals becomes pronounced. A koala is found crossing Anzac Highway near the southern parklands in the CBD. Despite being taken to a local animal shelter, it dies from dehydration. A picture of the dehydrated koala appears on the front page of the Thursday Advertiser.

Temperatures over 48⁰C combined with very low humidity and a hot northerly wind, resulted in the deaths of 200 endangered Yellow Tailed Black Cockatoo, which is listed as vulnerable in South Australia.

Another casualty of the heat wave has been the flying fox colony that established in the Adelaide Botanic Gardens during the Millennium Drought nearly 20 years ago. The bats, which are particularly susceptible to extreme heat events, experienced heat stress and died from heat exhaustion.

SANDY PITCHER

* You’re the Chief Executive of the Department of Environment Water and Natural Resources, which is responsible for strategic planning around adapting to climate change. In 2018, your department launched the State Adaptation Plan to help plants, animals and people adapt to climate change.
* What is the impact of climate change longer term impacts on native flora and fauna
* Seven years on, how effective do you think the Plan has been?
* What are some of the success stories?

1. **AMBULANCE DELAYS**

The ambulance service advises that it is dealing with double the usual number of calls for help because of the hot weather with over a 50 per cent increase in average daily call outs. Many of those in distress [wait hours for help](http://www.theage.com.au/victoria/anger-over-spike-in-deaths-during-record-victorian-heatwave-20140126-31gxb.html). As the heat wave continues, the number of deaths caused by heat stress related conditions rises and the Adelaide morgue runs out of space. Morbidity also increases, with a 20-fold increase in direct heat-related hospitalisation in metropolitan Adelaide.

My husband anecdote. People are in hospital because they simply forgot to drink a glass of water!

PADDY PHILLIPS

* What is the experience of the medical professionals tasked with responding? The doctors and nurses in emergency departments? The paramedics?
* What is the cost of this extra demand on health services?

ROSE RHODES

Red Cross calls ambulances as part of Telecross REDi services, when people don’t pick up the phone or when people are unwell. This is seen as a last resort.

* What can people do to help Red Cross avoid having to call an ambulance when someone doesn’t answer the phone?
* How can we as a community help to prevent avoidable call-outs?

LARISSA NICHOLS

* Why are people not turning their air-conditioning on?

FRANK CRISCI

So, we need to cut the cost of electricity.

* Got it sorted, Frank?

**SLIDE 13-14 – WEEK 3 – 17-23 FEB**

***RECORDING: NEWS BROADCAST***

**WEATHER:**

*The heat wave continues until 21 February 2025 when it ends with a series of slow moving thunderstorms travelling east across the State.*

*The thunderstorms initially produce dry lighting which triggers fires on the parched landscape, including across the Mt Lofty Ranges. This is quickly followed by heavy winds and rainfall in some areas. Rainfall totals of over 50 mm in an hour in southern Adelaide cause localised flooding.*

We need a wind sound effect **[FART sound effect]**

**[Wind sound effect]**

**SLIDE 13 – WEEK 3 – 17-23 FEB – EMERGENCY SERVICES IN ACTION**

1. **FIRE, POLICE AND EMERGENCY SERVICES**

Concerns are raised about arsonists lighting fires at this time given that emergency services are already stretched. Several bushfires occur in the Mt Lofty Ranges that last several days and are attended to by CFS crews and over 100 volunteers.

While police and emergency services are initially focused on the fire threat during the latter part of the heat wave, their attention soon turns to responding to localised flooding, which is caused by the intense rainfall that occurs as the cool change moves over the state.

Due to heat stress and strong winds, trees are losing limbs and causing havoc with roads and infrastructure.

CHRIS BEATTIE

* How does the SES respond?
* What is the role of the community volunteers?

SANDY PITCHER

* DEWNR bushfire response

NOEL BAMFORD:

* How do police respond?
* What are you asking from the community?

TONY LINES:

* How does council respond?
* What are the impacts on council services?

1. **ENERGY NETWORK IMPACTS**

Just as emergency service providers are planning a well-deserved break for staff and volunteers, the heavy winds result in damage to powerlines.

FRANK CRISCI

* How do storms affect energy supply infrastructure and how does SA Power Networks respond?

1. **CONCLUSION**

That was a pretty extreme situation.

JOHN NAIRN

* How likely is it that we will be experiencing heatwaves such as these in the future in Adelaide?

**SLIDE 15 – REFLECTIONS FROM THE PANEL**

What are the small changes we can make in our own lives?

What is the one thing people here can do to help reduce the risks from climate change impacts and/or impacts from heatwaves?

**SLIDE 16 – QUESTIONS FROM THE AUDIENCE**

**SLIDE 17 – Phew**

There are lots of resources and initiatives you can participate in…

Make sure you go and check out all the stalls out in the foyer

**SLIDE 18 – 31 Range of things people can do**

Details provided in the powerpoint print-out

**SLIDE 32 – THANK YOU**

Thank You

* Huge collaborative effort
* Audience
* Panellists
* Volunteers – All the Red Cross and SES volunteers have been hard at work these past few weeks with the heatwave so it’s amazing that so many have come out to support this event.

The event was funded by:

* City of Onkaparinga
* City of Marion
* City of Mitcham
* City of Holdfast Bay
* Red Cross
* SES
* AMLR NRM Board

The event was organised by:

City of Onkaparinga and City of Marion

**CLOSE**