



Glennelg Shire Extreme Heat Sub-plan



2019 – 2022 Version 2

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DOCUMENT INFORMATION

The Glenelg Shire Extreme Heat Sub-plan, (hereafter referred to as 'the Sub-plan'), is a sub-plan of the Glenelg Shire Municipal Emergency Management Plan (MEMP).

To provide feedback on this Sub-plan please contact the following preferably by email.

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Version control

Version	Release / Review Date	Author	Changes
Version 1.0	2012	GSC	Authorised version
Version 1.1	2017	GSC	Amendments
Version 2.0	Nov 2018	GSC & DHHS	Major rewrite

Please note: Once printed this document is uncontrolled

Authority

The Sub-plan has been produced by the Glenelg Municipal Emergency Management Planning Committee (MEMPC) as a multi-agency sub-plan consistent with State legislation, Extreme Heat and Heat Health policy and plans.

It is endorsed by the Glenelg Shire Council and is consistent with the intent of the Glenelg Shire Health and Wellbeing Plan 2017 -2021.

Distribution

A restricted version of the sub-plan is distributed to the MEMPC membership. A public version can be found on the Council website at <http://www.glenelg.vic.gov.au/Extreme Heats>

Review and Evaluation

The Sub-plan is to be reviewed at least annually leading into the summer season or after activation. A complete review and amendment is recommended every three years.

The Sub-plan may be tested and evaluated by the conduct of an Exercise in conjunction with an annual review before the start of the summer season.

Introduction

Extreme heat is one of the most significant natural hazards facing Victorians. The Glenelg Shire Municipal Emergency Management Planning Committee (MEMPC) are committed to promoting community awareness and education about the dangers of extreme heat and the measures that can be adopted to mitigate the effect.

Promoting these actions and supporting the health and wellbeing of the community within the Glenelg municipality is a shared responsibility between the community, service providers, community organisations, and local and state government.

Extreme heat has widespread impacts, ranging from direct impacts on our health to damage to ecosystems, agriculture and infrastructure (Climate Council 2014).

The Sub-plan will provide a framework of support to our local communities and vulnerable population groups so we can be better equipped to handle more intense and frequent extreme heat events.

Scope

This Sub-plan applies to the people who make up the communities living and working in or visiting the Glenelg municipality. It provides guidance on what actions can be taken at the local level in relation to Extreme Heat and Health management and is guided by State and Regional legislation, policy and guidelines.

The Sub-plan underpins a collaborative approach to community messaging and actions undertaken around Extreme Heat and Heat Health management with stakeholders at the State, Regional and Local levels.

The Sub-plan is underpinned by a long term approach by the Glenelg Shire Council to reduce the scale of climate change and decrease its impact by adapting the built environment. Council promotes sustainable living by encouraging all residents to take practical action and reduce their ecological footprints.

Objectives

1. Protect the health of the Glenelg community from heat-related harm.
2. Communicate the actions required to prepare for extreme heat events.
3. Promote shared responsibility to extreme heat management.
4. Outline the actions required of agencies and the community Before, During and After extreme heat to reduce the impact.

The sub-plan achieves these objectives through:

- Empowerment: empowering the community to prepare for and respond to extreme heat;
- Partnerships: developing partnerships to promote an informed and collective approach to preparing for and responding to extreme heat and
- Coordination: ensuring the impacts of extreme heat are considered and responded to as part of a coordinated approach.

Heat Health Alert

In Australia, Extreme Heat is defined as three or more days of unusually high maximum and minimum temperatures in any area. (Bureau of Meteorology 2014).

DHHS has developed a state-wide Heat Health Alert System to notify councils, hospitals, and health and community service providers of forecast Extreme Heat conditions which are likely to affect human health. Research tells us that when our area reaches a heat health temperature threshold of 30°C or above, heat-related illness and mortality increases substantially.

Our threshold is calculated by the Bureau of Meteorology (BoM). It determines the daily average temperature: the average of the forecast daily maximum temperature and the forecast overnight temperature (which is the daily minimum for the following day).

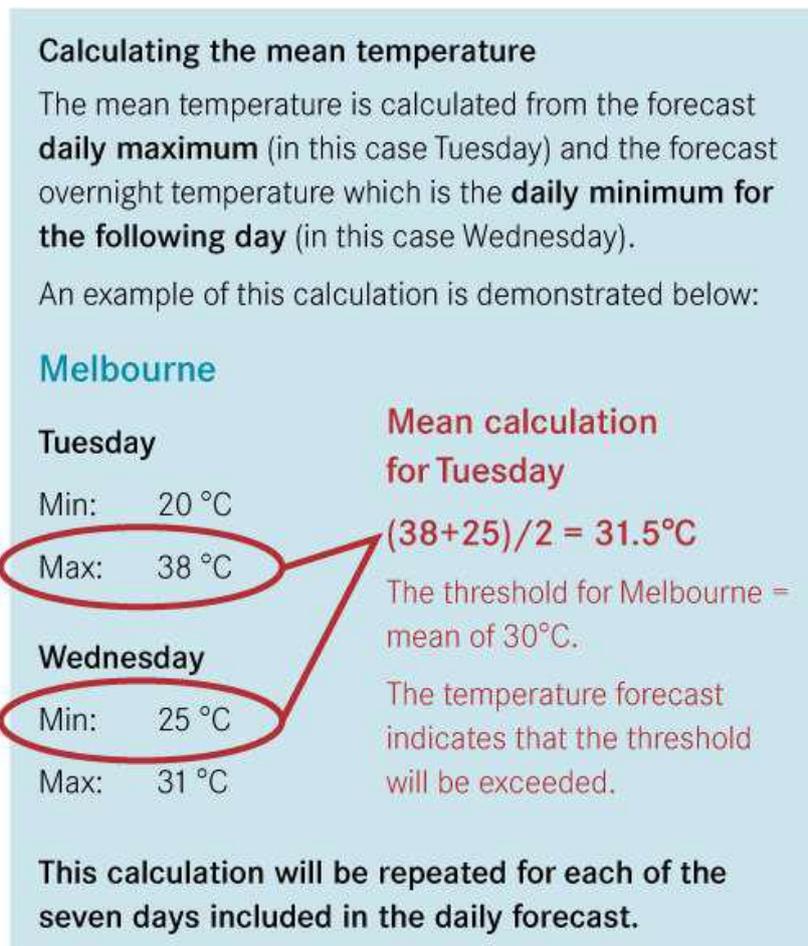


Figure 1 Calculating Heat Health Alert thresholds (based on Melbourne as an example)

When forecast average temperatures are predicted to reach or exceed the heat health temperature threshold for the Glenelg Shire, DHHS will issue a Heat Health Alert. These Alerts can be subscribed at the following link: www2.health.vic.gov.au

The heat health Temperature threshold for the Glenelg Shire is 30°C and is measured based on Hamilton’s temperature range. See [Appendix 3: Weather Districts and Heat Health Temperature Thresholds](#)

The Activation and coordination of the Before, During and After Action Plan heat health alerts is dependent upon the Glenelg Shire Council informing all key stakeholders of their responsibilities to enact their own Extreme Heat actions via email, fax or telephone. An activation plan will be followed to ensure this process is carried out smoothly and effectively (see Figure 3).

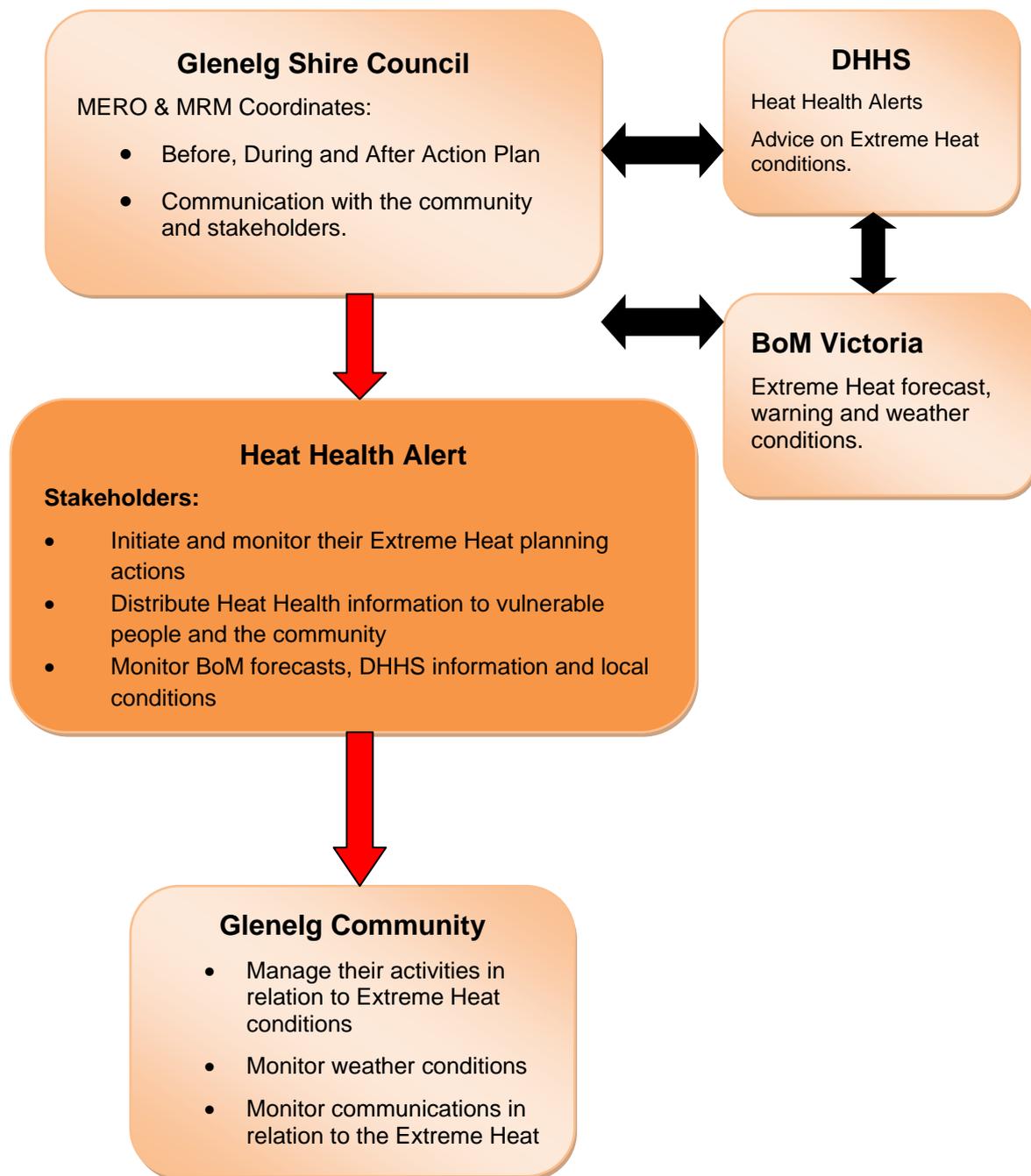


Figure 2 Heat Health Activation Plan

Impacts of Extreme Heat and Heatwaves

The impacts of extreme heat and heatwaves can be significant. Extreme heat increases the incidence of illness, most commonly in the form of:

- Heat cramps, heat exhaustion and heat stroke
- Dehydration
- Gastroenteritis, in connection with poor food handling

Extreme heat can also exacerbate pre-existing medical conditions, including heart and kidney disease, asthma and other respiratory illnesses. The risk of drowning can also increase as people engage in water-based recreational activities.

While the impacts of extreme heat can reach across entire communities, those who are most at risk of extreme heat are people:

- Of a certain age;
- In particular social or economic circumstances;
- Experiencing particular health conditions;
- Taking medication that may affect how the body reacts to heat and
- Who are active outdoors.

Further information on the health impacts of extreme heat can be found on the **Better Health Channel** website: www.betterhealth.vic.gov.au

Extreme heat rarely occurs in isolation. Infrastructure failure or other natural emergencies can add another level of demand on a community and services:

- Power outages will impact the ability to operate air-conditioners;
- Bushfires will increase vulnerability by reducing air quality and
- Public transport disruptions will reduce access to alternative air-conditioned venues.

Glenelg Shire Profile

People in the Glenelg Shire are generally accustomed to living in hot weather and are known to be resilient in hot conditions. For this reason, many of us can become complacent about extreme heat events and don't believe we could be susceptible to heat-related health impacts.

The extreme heat experienced in Victoria during January 2014, was one of the longest and most intense heatwaves on record (BoM 2014). Substantial health impacts were experienced over the 4 day period. Although the temperatures during this period were not as high as the January 2009 Extreme Heat the heat lasted for a longer period. During the week of the Extreme Heat there was an estimated 167 excess deaths or a 24% increase in mortality. Compared to the estimated 374 excess deaths during the 2009 Extreme Heat, this statistic indicates that the implementation of Extreme Heat Plans in Victoria (2011) may have contributed to increased community awareness and a decrease in mortality.

Changes in our climate are set to increase over the coming years. By 2030, the climate for Glenelg Shire is expected to be hotter and drier. The greatest increase in temperature and drying will occur in the areas surrounding Casterton.

Areas within the Shire that do not have access to town water supply, together with timber, dairy, sheep and beef agricultural businesses will be more exposed to changes in rainfall. Low income households situated in coastal areas of the shire are at risk of the potential impacts of climate change, and will have a lower capacity to manage the impacts.

Social vulnerabilities will occur where there is high exposure to forecast changes in the climate variables, high sensitivity to these changes and low capacity to respond. Communities with high sensitivities will have a high proportion of residents that are aged above 65 years old and living alone, or a child under four years, and/or high proportion of residents from non-English speaking backgrounds.

Populations with the highest social sensitivity and least capacity to respond are located within the town centres of Portland and Casterton. Populations with the least social sensitivity and greatest capacity to respond are located east of Merino and Cape Bridgewater.

Community events may be affected such as the Three Bays Marathon, Winter Solstice, Tour of the Great South Coast (cycling event), Casterton Kelpie Festival, Heywood Wood Wine and Roses Festival, and Portland Upwelling Festival to name a few. This could have both social and economic impacts.

People most at-risk

Extreme heat can affect anybody, including the young and healthy; however, there are certain population groups that are more at risk than others. These include people over 65, Pregnant women, infants and young children, people with a disability, people with a pre-existing medical condition and people who are socially and economically disadvantaged. Other groups at risk to heat include people who are overweight, people who over exert during work or exercise and people confined to bed and unable to care for themselves.

While the Glenelg Shire Extreme Heat Sub-plan plans for a whole-of-community response, it particularly focuses upon the following groups:

- The elderly: People over 65 years of age

Research indicates that heat-related mortality is highest in those over 65 years of age. In Victoria's January 2009 Extreme Heat; reportable deaths for those 65 years and older more than doubled. Glenelg Shire's population, like most parts of Australia, is ageing. This ageing trend is projected to continue, but at a higher rate as the baby boomers enter old age. In 2016, 22.5% of our population was aged 65 years or older, compared to 15.6% state-wide. By 2026, the percentage of the population in our municipality over 65 is projected to increase to 28.1%.

- Infants: Children aged 0 to 4 years

Young children are also sensitive to the effects of high temperatures because they produce more metabolic heat than adults and rely on others to regulate their environments and provide adequate liquids. Their core temperature can rise quickly causing dehydration. Glenelg Shire has a lower proportion of pre-schoolers. The number of children aged 0 to 4 years in our Shire has declined slightly from 1,068 in 2011 to 977 in 2016. Numbers of children aged 0 to 4 years in our Shire are expected to rise by 2036 to 1,065 accounting for approximately 5% of the population.

- Sports lovers

Sports lovers in the Glenelg Shire enjoy both indoor and outdoor sporting activities. Heat and sport or physical activity can be a dangerous combination. At rest and in comfortable temperatures, a person sweats about two litres of fluid every 24 hours. During hot weather (35°C), this fluid loss can leap to around 10 litres over the same time period. Exercising in hot weather accelerates fluid loss even more, and heat stress can occur quickly when sweat can't evaporate fast enough to keep the body sufficiently cool.

Council will continue to work with sporting groups to inform them about possible measures to prevent heat stress, how to recognise heat stress, heat exhaustion and heatstroke, and what to do on heat health alert days. Effective management systems for ensuring the health and safety of people playing sport on hot days (especially children) must be in place.

- Tourists

In heat events, dehydration and heat stress can be a risk, particularly for un-acclimatised people. The Glenelg Shire is one of Victoria's most popular holiday destinations. It is located along the Great South Coast in Victoria's south-west, with the largest centre at Portland, approximately 350 kilometres from Melbourne. Other centres in the Shire hosting tourists and events include Casterton, Heywood, Nelson, Dartmoor and Merino.

Whilst our region is recognised as a safe place to visit, as visitor numbers increase especially over summer, additional pressure can be placed on the capacity of health and safety services to meet the needs of visitors if they suffer from heat related illnesses. Simple messages need to be given to our tourists on very hot days such as:

- When it's hot, it's time to slow down and drink lots of water;
- Use sunscreen, wear a broad-brimmed hat and cool loose clothes which "breathe";
- Reduce exercise in duration and intensity, or postpone to a more suitable, cooler time;
- Don't leave children and pets in hot cars;
- Plan cooler activities like swimming, cinema, visiting gardens and parks.

- Farmers

Prolonged periods of hot weather can have far-reaching effects on our farmers. Because farmers generally work outdoors, they are at an increased risk of heat stress. Research tells us that during Extreme Heat conditions there are higher numbers of work-related farm accidents and reduced work productivity, yet increased workloads and higher levels of stress for farming families. Deterioration of water supplies, along with drought and bushfire threat, can further add to difficult and expensive summers for our farmers.

The Shire has a mixed economic base with highly productive rural areas. Beef cattle are the main rural industry in the south, while wool production is more common in the northern areas around Casterton and there is a strong horticultural sector around Portland.

- People from diverse cultural backgrounds where English is not the first language.

Approximately 8% Glenelg Shire residents were born outside of Australia. This is lower than the state percentage of 28% and the regional average of 11%. People from CALD communities are more vulnerable to Extreme Heat conditions due to the multiple and complex barriers they face in accessing

health services and community messages. Our Council recognises the importance of ensuring that residents from CALD backgrounds have full and fair access to heat health information. This information must be made available in a range of formats translated into community languages.

- People with a disability and low mobility

Many people with a disability, particularly those with a severe physical or mental impairment, are amongst the most vulnerable and disadvantaged in our society. They can be badly affected by prolonged periods of hot weather. The incidence of disability increases with age, peaking in the 55 to 74 years age group. In 2016, 1,323 people or 6.8% of the population in Glenelg Shire in 2016 reported needing help in their day-to-day lives due to disability. Reference see [Appendix 3: Resources](#)

Extreme Heat Action Plan

The Sub-plan outlines an Action Plan ([Appendix 1: Extreme Heat Action Plan](#)) for the MERO and MRM and emergency services to implement Before, During and After an event to mitigate the effects of an Extreme Heat on the Glenelg municipality and its communities.

Before Between: Apr 1 - Nov 30	<ul style="list-style-type: none"> • Promote shared responsibility • Facilitate Extreme Heat resilience within Glenelg Shire communities
During Heat Health alerts & between Dec 1 - Mar 31	<ul style="list-style-type: none"> • Promote awareness • Support Extreme Heat resilience in the community • Respond to Heat Health Alerts in a planned way
After Heat Health alerts	<ul style="list-style-type: none"> • Review Heat Health Alert activations as required • Review the sub-plan at the end of summer

Figure 3 Extreme Heat Action Plan Summary

Appendix 1: Extreme Heat Action Plan

Before

Occurs between April 1 and November 30 each year and includes a range of actions to facilitate Extreme Heat resilience within Glenelg communities.

Action	Responsibility	Timeline
<p>Update general Extreme Heat information, material and resources:</p> <ul style="list-style-type: none"> • Check for new resources/materials published by DHHS www@health.vic.gov.au to support Extreme Heat planning • Check for policy/legislative changes that may now affect actions • Distribute updated information to relevant Council departments • Update web pages and discard outdated information • Encourage Agencies to review Extreme Heat Plans • Contribute to any media articles/topics/photo shoots 	MERO & MRM	April, May
<p>Encourage local stakeholders to:</p> <ul style="list-style-type: none"> • Subscribe to DHHS Heat Health Alerts at www2.health.vic.gov.au • Consider and develop Extreme Heat plans and heat health actions • Monitor events and liaise with organiser's about heat health alerts and actions 	Primary contacts as per Appendix 2	April to November
<p>Review vulnerable Persons Register</p> <ul style="list-style-type: none"> • Review Vulnerable Person's Register and update as required • Distribute heat health information as required 	MRM and Other Agencies	April to November

<ul style="list-style-type: none"> • Check on and assess client vulnerability to Extreme Heat conditions as required. 		
<p>Identify potential cool places:</p> <ul style="list-style-type: none"> • Inspect emergency relief centre's for suitability • Consider other community facilities suitable for use • Engage with facility owner's • Promotion of potential community cool places such as public swimming pools, library and beaches • Council may consider reviewing the operation hours of public swimming pools • Council may consider opening a relief center 	MERO & MRM	April to November

During

Is triggered when a Heat Health Alert is issued by DHHS. Glenelg Shire Council and Emergency Services will initiate specific actions in accordance with this Sub-plan.

Action	Responsibility	Timeline	Resources
<ul style="list-style-type: none"> Advise internal stakeholders to implement specific unit actions 	Primary contacts as per Appendix 2	Heat Health Alert	
<p>Implement Local Communications Campaign</p> <ul style="list-style-type: none"> Coordinate local media alert; Monitor BoM forecasts, DHHS information and local conditions Update home page on Council website Update social media pages e.g. Facebook, Twitter etc. Advise Council staff and Visitor's Centre of Heat Health Alert Brief customer service on messages for general public. 	Council Communications Unit Customer Service	Heat Health Alert	
<p>Assess programs and prioritise tasks:</p> <p>Council:</p> <ul style="list-style-type: none"> Advise vulnerable clients; Ensure staff are adequately hydrated and receive regular breaks; Deploy additional staff resources as required; Consider opening emergency relief/recovery centres if required; Consider revisiting pool opening and closing times on a needs basis; Consider cancelling/modifying events and informing stakeholders 	MRM All Council Departments MERO/MRM MERO/MRM	Heat Health Alert	

After

The MEMPC will review the Extreme Heat Sub-plan either at the end of summer or after a Heat Health Alert that resulted in activation as required to identify any opportunities to amend this Sub-plan.

Action	Responsibility	Timeline	Resources
<p>Implement ‘Extreme Heat Post Event’ Communications Campaign</p> <ul style="list-style-type: none"> Remove heat health alert communications messages; Amend web messages 	Council Communications Unit	After Extreme Heat event	
<p>Review Heat Health Alert actions</p> <ul style="list-style-type: none"> Consult with internal stakeholders to review procedures and actions; Consult with external stakeholders to review procedures and actions; Seek client feedback on their Extreme Heat experience Update Vulnerable Person’s Register as required 	<p>All Council Departments. Primary contacts as per Appendix 2</p> <p>Aged & Disability Services, MCH</p>	Post summer	
<p>Review the Glenelg Shire Extreme Heat Sub-plan:</p> <ul style="list-style-type: none"> MEMPC to facilitate a review of the Extreme Heat Sub-plan Invite stakeholders to participate or contribute to the review through feedback Amend the Extreme Heat Sub-plan as required Contribute to the development or amendment of stakeholder plans, procedures or guidelines as required 	GMEMPC members	Post summer	

Appendix 2: Strategic Extreme Heat Responsibilities Summary

For specific agency roles and responsibilities please refer to the Emergency Management Manual Victoria Part 7: Emergency Management Agency Roles.

The following is a summary from the SERP- Extreme Heat Sub-plan 2014, Part 5.3 Strategic coordination of heat event management:

1. Emergency Management Commissioner

Is responsible for coordination of extreme heat events at the State level.

2. State Coordination Team

Supports coordination functions of the EMC. They convene once a week from November until the end of March to review the 7 day weather forecast and the Heat Health Alert status.

3. Health and medical coordination

DHHS has a support role and coordinates the Health response outlined in the SHERP.

4. Pre-Hospital coordination

The State Health Commander is responsible for directing the pre-hospital response to an emergency at the state tier and has the overall responsibility for the Ambulance Victoria (AV) emergency management response.

In relation to an Extreme Heat event, the State Health Commander will Activate the AV Extreme Heat Sub-plan to the AV Emergency Response Plan and ensure AV's readiness to respond to extreme heat emergency.

5. Public Transport Coordination Group

Is a public transport sector specific emergency management team convened to plan the coordinated response and recovery from public transport disruption resulting from an emergency.

6. Electricity coordination

In an extreme heat event, the Victorian Energy Emergency Communications Protocol (VEECP) is enacted by the Australian Energy Market Operator (AEMO) in collaboration with DELWP Energy. The energy sectors response to the impact of the emergency on power supply is managed and coordinated.

7. Education coordination

The Dept. of Education and Training's (DET) Emergency Management Division coordinates DET emergency response and recovery efforts for early childhood services, government and non-government schools.

Schools do not close on days of extreme heat and students are not sent home unless there is someone to look after them.

8. Animal Health Coordination

The Victorian Emergency Animal Welfare Plan provides for the coordination of activities for the impacts of emergencies on the health of wildlife (DELWP), livestock (DJPR-AgVic) and companion animals (Local Govt.).

9. Municipal council coordination

Councils have a municipal Extreme Heat sub-plan (of the MEMP) which they activate on receipt of a Heat Health Alert. They also have a role in relief and recovery and are the primary source of local information about their community.

10. Regional Response Coordination (VicPol)

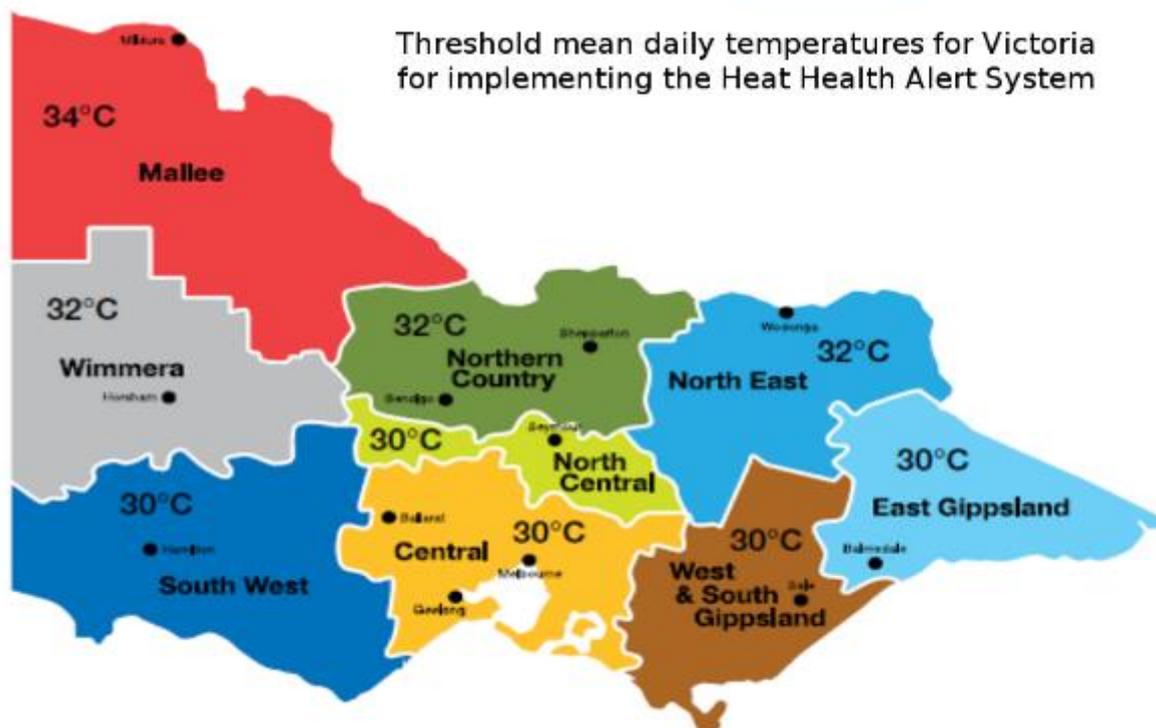
VicPol through their RERCs and MERCs remain responsible for emergency response coordination.

11. Regional Recovery Coordination (DHHS)

DHHS remains responsible for the coordination of relief and recovery at the regional tier.

Appendix 3: Weather Forecast Districts and Heat Health Temperature Thresholds

Weather Districts/DHHS Areas/Municipalities



Source: Victorian Department of Health's Heat Health Alert System 2014-2015

Weather District	DHHS Area	Municipality
South West (Threshold calculated based on Hamilton's temperature)	Wimmera South West	Corangamite Shire Glenelg Shire Moyne Shire Colac Otway City Warrnambool
Wimmera	Wimmera South West	Hindmarsh Horsham Northern Grampians Yarriambiack

Appendix 4: Resources

Legislation:

- Emergency Management Act 2013
- Emergency Management Manual Victorian (MMV)
- Public Health and Wellbeing Act 2008
- Climate Change Act 2017
- Planning and Environment Act 1987
- Local Government Act 1989

Plans:

- State Emergency Response Plan: Extreme Heat Sub-plan (Edition 2, 2014)
- Heat health plan for Victoria (December 2018)
- Glenelg Shire Health and Wellbeing Plan 2017-2021
- Our Environment Our Future Sustainability Action Statement 2006
- Taking Action for Victoria's future: Climate Change White Paper – The Implementation plan 2010

Guidelines:

- Extreme Heat Planning Guide (DHHS) 2009
- Extreme Heat plan review tool (DHHS) 2011

Population Data:

- Victorian Office of the Chief Health Officer 2016: Office of the Chief Health Officer Report: www2.health.vic.gov.au
- Victoria in Future 2016 – Victoria First Release: Western District: www.planning.vic.gov.au
- Victoria in Future 2016: Glenelg: www.planning.vic.gov.au
- Australian Bureau of Statistics: Census data 2016: www.abs.gov.au

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