

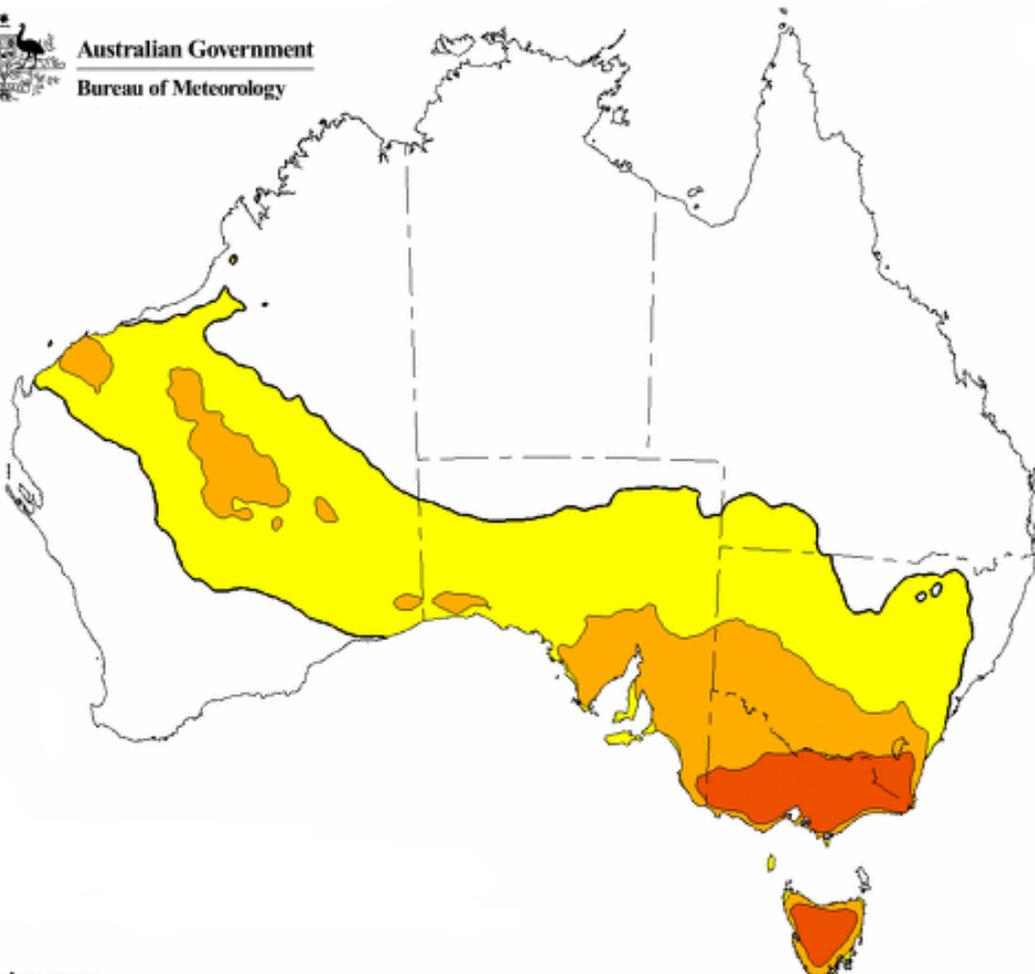
State Emergency Response Plan

Extreme Heat Sub-Plan

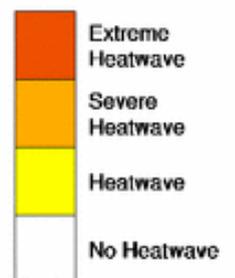
Edition 2



Australian Government
Bureau of Meteorology



Heatwave Status



The State Crisis and Resilience Council (SCRC) has approved this plan as a sub-plan to the State Emergency Response Plan.



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Acknowledgment of Country

Emergency Management Victoria (EMV) acknowledges Aboriginal and Torres Strait Islander people as the Traditional Custodians of the land. EMV also acknowledges and pays respect to the Elders, past and present and is committed to working with Aboriginal and Torres Strait Islander communities to achieve a shared vision of safer and more resilient communities.

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State Emergency Management Priorities

The State has endorsed a set of emergency management priorities to underpin and guide all decisions made during emergencies in Victoria.

Priority	Application to Extreme Heat
<p>Protection and preservation of life is paramount. This includes:</p> <ul style="list-style-type: none"> ○ Safety of emergency response personnel; and ○ Safety of community members, including vulnerable community members and visitors/tourists 	<p>Extreme heat can have a significant impact on human health. It is critical that everyone understands the risk, particularly to those vulnerable to the effects of heat, and takes action to protect and preserve life. Extreme heat is indiscriminate and can affect a wide mix of the community including, the elderly, those of ill health, the young, nursing mothers and those who work outside.</p>
<p>Issuing of community information and community warnings detailing incident information that is timely, relevant and tailored to assist community members make informed decisions about their safety</p>	<p>Building on the 'shared responsibility' concept, upon which the State has built its emergency management arrangements, the Control Agency will coordinate agencies with a role or responsibility for managing the impact of an extreme heat event to provide consolidated information to the community about staying safe in the heat. This information is provided so that everyone can arrange to protect their family, their neighbours and vulnerable members of the community from the effects of heat. Community messaging may vary depending on location and duration of the extreme heat conditions.</p>
<p>Protection of critical infrastructure and community assets that support community resilience</p>	<p>The failure of energy, transport and other critical infrastructure can greatly compound the health impact of an extreme heat event. All agencies with a role in protecting this infrastructure must take action to prepare and protect these services during an extreme heat event. The Control Agency may chair or convene the State Emergency Management Teams (SEMT) as required. The SEMT will identify and include relevant businesses involved in the delivery of critical infrastructure. This may include, for example, representatives from health, transport tourism, and energy sectors.</p>
<p>Protection of residential property as a place of primary residence</p>	<p>For most people, their home is normally a safe haven. Those responsible for managing residential services need to prepare prior to an extreme heat event to reduce the impact of the event on residents. It should be acknowledged that preparations may differ in relation to fire and extreme heat.</p>
<p>Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability</p>	<p>Services, business and industry that depend upon power, transport and other critical infrastructure must ensure they prepare, test and update their business continuity plans to reduce the disruption caused by outages.</p>
<p>Protection of environmental and conservation assets that considers the cultural, biodiversity, and social values of the environment.</p>	<p>Extreme heat events can have significant effect on flora and fauna. A major heat event can dry out vegetation and greatly increase the potential for major bushfire. Animals can be affected by heat similarly to humans and equally need shade and water.</p>

1 Introduction

1.1 Purpose

The State Emergency Response Plan Extreme Heat Sub-plan (Extreme Heat Sub-plan) outlines the Victorian arrangements for the coordinated response to the impacts and consequences of extreme heat events (including heatwaves) on the community, infrastructure, and services.

This Extreme Heat Sub-plan describes the arrangements for managing the impact and consequences of all heat events, regardless of their duration, and refers throughout to an 'extreme heat event'. Reference is also made to 'heatwave', which is generally defined by the Bureau of Meteorology, as a three or more day period of abnormal and uncomfortable hot weather for a given location(s).

This plan has been developed in conjunction with a wide range of Victorian emergency management agencies.

1.2 Objective

The objective of the Extreme Heat Sub-plan is to provide an overview of the arrangements on how government, agencies, business, and the community will work together in an integrated and coordinated way, to manage the consequences, communication, and community connections due to extreme heat (including heatwaves) events on human health, infrastructure, and the environment, where it differs from what is outlined within the State Emergency Response Plan (SERP).

1.3 Scope

The scope of this sub-plan includes:

- identification of potential risks and consequences of extreme heat events to the social, built, economic, and natural environments
- description of the policy and programs in place to mitigate these risks before, during and after an emergency
- identification of the positions with accountability and the agencies responsible for managing specific strategies and actions
- description of the shared responsibility of all individuals to take action to reduce the impact of an extreme heat events on themselves, their families, vulnerable members of the community and on their wider interests
- description of the multi-agency management arrangements at the state, and regional levels (including the national level arrangements where these exist)

This Extreme Heat sub-plan provides strategic information about the Victorian arrangements for managing extreme heat events. It is not intended to provide detail in relation to individual agency operational plans in response to an extreme heat event.

Information about the management of consequences that may occur are detailed in other SERP Sub-Plans such as the SERP Public Transport Disruption Sub-Plan. Operational activities of agencies or businesses are covered within their respective operational plans. Agency specific operational or business continuity plans may be required to be enacted to manage the impacts or consequences of heat conditions on the activities of an agency, which may not trigger these state level arrangements.

The State Emergency Management Priorities shall apply to the management of Extreme Heat events.

1.4 Authorising environment

The *Emergency Management Act (1986 and 2013)* is the empowering legislation for the management of emergencies in Victoria.

The Emergency Management Manual Victoria (EMMV) contains policy and planning documents for emergency management in Victoria, and provides details about the roles different organisations play in the emergency management arrangements.

The State Emergency Response Plan (EMMV, Part 3) identifies Victoria's organisational arrangements for managing the response to emergencies, and the State Emergency Relief and Recovery Plan (EMMV, Part 4) identifies Victoria's organisational arrangements for relief and recovery services.

This sub-plan is a subordinate plan of the State Emergency Response Plan and is approved by the State Crisis and Resilience Council (SCRC).

In addition to the *Emergency Management Acts*, the following Acts and Regulations relate to the management of extreme heat:

- *Local Government Act 1989* which outlines the responsibility of local government to protect public health in emergencies
- *Public Health and Wellbeing Act 2008* which strengthens local governments role through the municipal public health planning process
- *Planning and Environment Act 1987* which fosters better planning of the built environment to withstand the impact of a range of likely emergencies, including extreme heat events
- *Prevention of Cruelty to Animals Act 1986* which outlines the responsibility of animal owners to protect the health of their animal from unreasonable pain or suffering.

1.5 Activation of the plan

The arrangements in this Extreme Heat sub-plan apply on a continuing basis and do not require activation.

Individual agencies, on the forecast of extreme heat conditions, will enact agency preparedness activities to reduce the impact of extreme heat events. These triggers are outlined in the State Operational Arrangements for Extreme Heat and have been established in consultation with relevant stakeholders.

1.6 Audience

The audience for this Extreme Heat sub-plan comprises the Victorian Government and agencies within the emergency management sector, including business and community groups with a significant role in the management of the emergency.

Although the wider community is not the primary audience, community members may find the contents of this plan informative.

1.7 Linkages

This Extreme Heat sub-plan reflects legislation, the arrangements in the SERP, the strategic direction for emergency management in Victoria and the accepted state practice for managing emergencies.

The arrangements in the SERP have not been repeated unless necessary to ensure context and readability. Any variations from these arrangements have been identified and justified.

Subordinate to this sub-plan are operational plans and arrangements that complement the management of these emergencies.

Related plans and arrangements:

ITEM	DESCRIPTION
State Health Emergency Response Plan	The arrangements for state health command and coordination involving pre-hospital care, patient transport, receiving hospitals and other healthcare facilities.
Heat Health Plan for Victoria	Outlines a coordinated and integrated response to protecting health and reducing harm from extreme heat and heatwave and sets out the actions and systems in place to support those most at risk during periods of extreme heat.
SERP Public Transport Disruption Sub-plan	Overview of the Victorian arrangements for the coordinated response to a major public transport disruption emergency or threat, by all agencies with a role or responsibility in relation to the response to this type of emergency.
SERP Energy Sub-Plan (under development)	Overview of the Victorian arrangements for a coordinated response to a potential or actual significant disruption to the supply of energy, by business and all agencies with role or responsibility in relation to the consequence management of this type of emergency.
Victorian Emergency Animal Welfare Plan	Integrates existing legislative requirements for animal welfare with the state's formal emergency management arrangements, describing the planning, roles and responsibilities and the operating arrangements between animal welfare organisations, emergency services, and animal owners.
Operational Arrangements – Extreme Heat	The arrangements in place for the management of the response to extreme heat events (including heatwaves), by establishing considerations, actions and escalation processes to ensure effective communications, community connections and consequence management.

Table 1: Related plans and arrangements

1.8 Exercising and evaluation

This Extreme Heat sub-plan will be exercised within one year from the date of approval. As part of a continuous improvement process, the exercise will be evaluated and, where improvements to the emergency management arrangements in this sub-plan are required, it will be amended and a revised version issued.

Exercises will be conducted in accordance with the State Exercising Framework.

1.9 Review

This Extreme Heat sub-plan was current at the time of publication and remains in effect until modified, superseded or withdrawn.

This Extreme Heat sub-plan will be reviewed and updated every 3 years. Consideration will be given to an earlier revision if the sub-plan has been applied in a major emergency or exercise, or following a substantial change to the relevant legislation or arrangements.

2 The emergency context

2.1 Extreme heat hazard

Extreme heat events can cause a substantial impact on the quality of life of the community, including death. Climate science research forecast an increase in the duration and severity of extreme heat and heatwave events.

The Victorian Government has assessed heatwave to be a significant risk facing the State (*Emergency Risks in Victoria, 2014, Victorian Government*).

Within this sub-plan, the term of extreme heat is used to describe a sustained period of high temperatures (heatwave) or; a single day of higher than average temperature for that time of the year (a temperature that occurs infrequently or highest on record) as classified by the Bureau of Meteorology (BoM). The BoM defines a heatwave as “three days or more of high maximum and minimum temperatures that are unusual for a given location”.

The effect of heat is cumulative on the community, infrastructure, and services. A single day of extreme temperature may have an impact and this impact increases with multiple days of similar temperatures. The effects of extreme heat can continue for some days after temperatures have dropped. The initial impacts of extreme heat do not always impact on human health in the first instance. The impacts of extreme heat on infrastructure may result in disruption or failure of infrastructure and/ or services which can lead to consequences to human health and wellbeing.

Australians are generally accustomed to living in hot weather and are known to be resilient in hot conditions. For this reason, many people may be complacent about extreme heat and don't believe they could be susceptible to heat-related health impacts.

In Victoria there have been two recent heatwave events where the Chief Health Officer reported that there were excess deaths in Victoria, which serves as a reminder that the impact of heatwaves on human health is real and life threatening.

In January 2009, heatwave in Victoria resulted in an estimated 374 excess deaths compared with the average rate in the same week over the previous five years. In January 2014, there were an estimated 167 excess deaths reported.

Although maximum temperatures for the January 2014 heatwave were slightly lower than those observed during earlier heatwaves, the mean temperatures were high and the heat lasted for a longer time. Victoria experienced the hottest 4-day period on record.

The report into the health impacts of the January 2014 heatwave in Victoria indicated that the continued implementation of Victoria's heatwave plan (DHS, 2011) had contributed to the decrease in estimated excess deaths observed in 2014.

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 aged 65 years and over, people who have a medical condition and people taking medicines that affect the way the body reacts to heat.

Heat-related illness can range from mild conditions, such as a rash or cramps, to very serious conditions, such as heat stroke, which can be fatal. Extreme heat can also exacerbate existing medical conditions including heart or kidney disease.

Extreme heat can have significant effect on flora and fauna. Prolonged periods of heat can dry out vegetation and greatly increase the potential for major bushfire. Similarly to humans, companion animals, livestock and wildlife can be affected by extreme heat and equally need shade and water.

Extreme heat can also affect infrastructure and reduce its performance resulting in, for example, power outages; delays or cancellations of rail services or failures of traffic management systems.

Extreme heat tends to occur during the summer months. In Victoria, this is mainly between the months of December to March.

Extreme Heat events often occur at the same time as other emergencies, most likely before or at the same time as severe storm or bushfire conditions.

3 Consequences

3.1 Wellbeing

Extreme heat can affect anybody although certain circumstances and behaviour can make some people more susceptible. Factors such as age, health, environment, social and economic circumstances, location, or occupation can make some groups more vulnerable to the effect of heat compared to others.

Those responsible for managing residential services need to take preventative and preparatory action prior to extreme heat to reduce the impact on residents.

Appendix A lists the groups of people most vulnerable to the effects of extreme heat.

All agencies and business/industry also have a responsibility to protect the health and safety of their workers as far as is reasonably practicable. During extreme heat events, outdoor workers are more susceptible to becoming affected by the temperature, and action may need to be put in place to reduce the health impact on the workers, such as ceasing or delaying work until the temperature has reduced.

Extreme heat events pose a similar risk to the health of animals. *Prevention of Cruelty to Animals Act, 1986* describes that the person 'in charge' of an animal has primary responsibility (duty of care) to ensure it is protected from unreasonable pain or suffering.

High temperatures, especially when combined with high humidity and low air movement, can exceed the ability of livestock to cope, resulting in a loss of appetite, productivity, reproductive vigour and sometimes death. Dairy cattle are particularly susceptible to heat stress.

Smaller wildlife such as flying foxes living in high density populations are more susceptible to this type of weather than other wildlife.

3.2 Liveability

Infrastructure and essential services, especially power supply and transport are susceptible to the impact of extreme heat and their failure can greatly compound the health impact of an extreme heat event.

There is a higher demand for drinking water during extreme heat events.

Power failure can lead to the loss of air conditioning systems, water production and waste water treatment, a loss of telecommunications, traffic signal failures and traffic congestion.

Transport outages may lead to interruptions in the supply chain for industry and business, leading to loss of business continuity and a major economic cost to the State.

All agencies with a role in protecting critical infrastructure are required to take action to prepare for and to protect these services during an extreme heat event.

3.3 Sustainability

There are many interdependencies between services. For example, people with responsibility for caring for others may stay away from work. This may lead to worker shortages, which may in turn affect the delivery of services. The effect can compound across government and the private sector.

There are well-established linkages between growing season temperatures, precipitation, and crop performance. Extreme heat and heatwaves can have significant impacts on agricultural crops and livestock. High temperatures over several days can reduce the crop yield and quality substantially, through both direct and indirect effects.

3.4 Viability

Rail and tram networks are particularly susceptible to delays or asset failure during an extreme heat event, leading to a convergence of people who may be unable to access relief from the heat, potentially resulting in health-related issues.

Services, business, and industry with a dependency on power, transport and other critical infrastructure are required to ensure they prepare and regularly test and update their business continuity plans to reduce the disruption caused by outages.

4 Community resilience

4.1 Shared and individual responsibility for action

The National Strategy for Disaster Resilience (2011), developed by the Council of Australian Governments, provides high-level guidance on disaster management to agencies with a role in emergency management. The Strategy can be found at www.ag.gov.au/EmergencyManagement/Documents/NationalStrategyforDisasterResilience.pdf

Foremost in the Strategy is the principle of all of society taking responsibility for preparing for disasters. Examples within the heat context include:

- individuals taking responsibility for their own health and the health of those in their care, and actively planning and preparing for extreme heat events
- local government and communities planning and preparing for heat events
- industry, including critical infrastructure providers, tourism, and agriculture, recognising the potential risk of heat events to their businesses, customers and planning for continued service provision
- non-government agencies, to which the community may turn for support or advice, preparing for increased service demand during heat events
- government agencies through:
 - taking account of the potential for extreme heat events in urban planning and design
 - providing education on heat including recommended actions to prepare for an extreme heat event
 - supporting individuals and communities to prepare for, respond to and recover from extreme heat events
 - providing information to the community during extreme heat events
 - ensuring an effective, well-coordinated response during extreme heat events
 - helping communities to recover and learn following extreme heat events and build their resilience to future events.

The reduction of the impact and consequences of extreme heat events ultimately depends upon all individuals recognising the risk of heat and taking the necessary action to protect themselves, their family, those who are most vulnerable to the health impacts of heat (listed in Appendix A), their neighbours and those in the wider community, wherever possible.

4.2 Emergency information and warnings

4.2.1 Weather Forecast

The Bureau of Meteorology (BoM) provides seven-day forecasts that include the forecast maximum and minimum temperatures across the state.

The BoM has a heatwave service that produces a 'Heatwave Forecast' product between November and the end of March that provides an assessment of the location of low intensity heatwaves, severe intensity heatwaves, and extreme intensity heatwaves for the last two three-day period and the next five three-day period.

Through a set of maps the BoM colour-codes areas where heatwave conditions are forecast to occur and indicate the intensity of the heatwave as to whether it is expected to reach severe or extreme intensity status.

The intent of this service is to give people advance notice of unusually hot conditions allowing government, emergency services and communities' time to adjust and to adopt measures to reduce the impact.

Further information about the heatwave service and product is available at: www.bom.gov.au/australia/heatwave/

4.2.2 Heat Health Alert (HHA) system

The Department of Health and Human Services (DHHS) have developed a heat health alert system to notify local government, departmental program areas, hospitals, and state wide or major metropolitan health and community service providers of forecast heatwave conditions which are likely to impact on human health. The Chief Health Officer is accountable for issuing Heat Health Alerts.

The DHHS monitors the daily weather forecasts and calculates the daily average temperature for each weather forecast district, to determine whether a heat health alert should be issued.

The DHHS has identified heat health temperature thresholds for each weather forecast district above which heat related illness and mortality will increase substantially. Figure 2 shows how the heat health temperature thresholds are calculated for Victorian weather forecast districts and, Figure 3 shows the thresholds for each weather district.

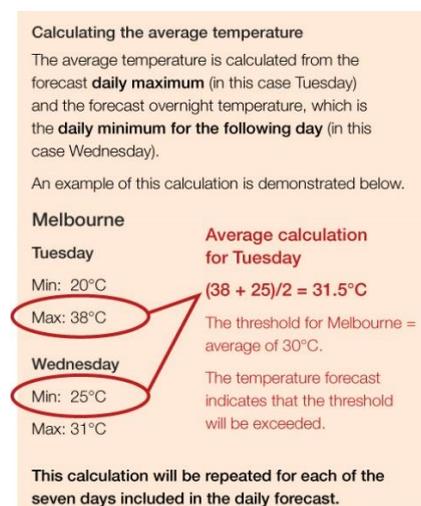


Figure 1: Heat Health temperature threshold calculation

These thresholds are based on information including average summer temperatures, research conducted by Monash University and temperature thresholds used in previous heat health alert systems.

Once the heat health temperature threshold for a specific weather forecast district has been reached, the Chief Health Officer issues a heat health alert for that district. Alerts may be issued several days prior to heat event. The alert is available on the Chief Health Officer website: www.health.vic.gov.au/chiefhealthofficer/index.htm

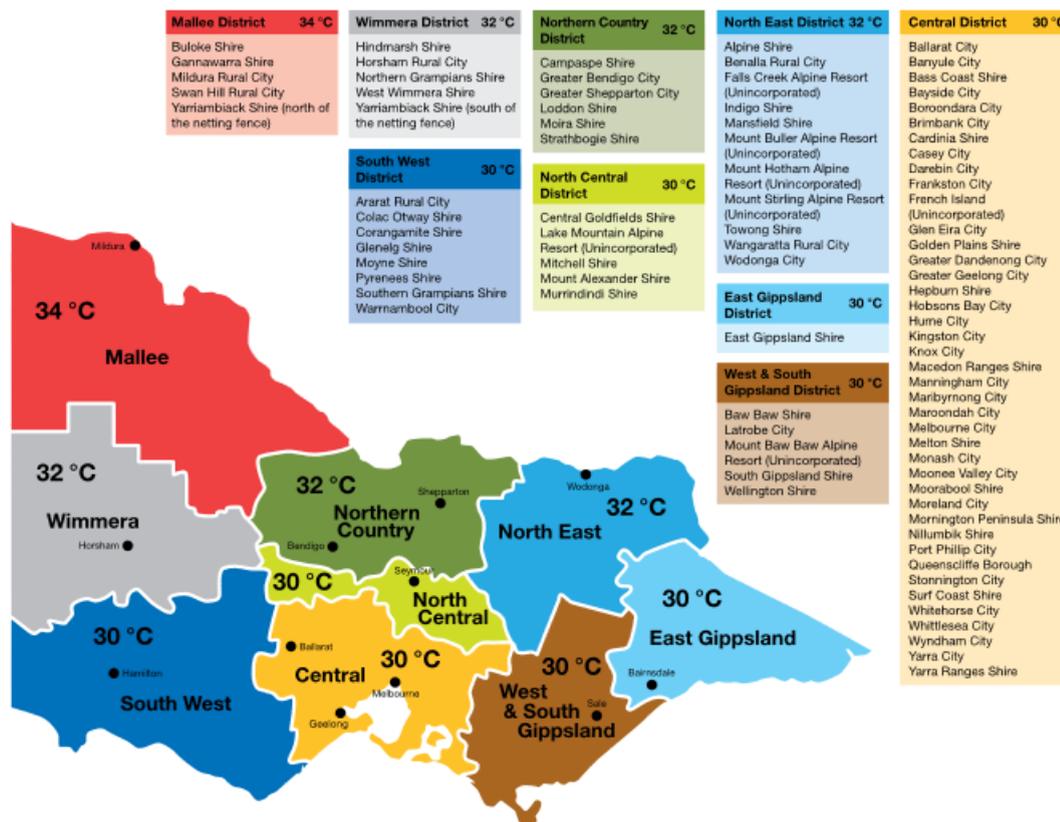


Figure 2: Heat Health temperature thresholds by weather district

DHHS issue Heat Health Alert notifications through an internal department subscription service, for which community members can individually subscribe. The Chief Health Officer may also choose to issue community preparedness information through media outlets and social media channels. Based on the notification, health agencies and service providers such as hospitals, local government, residential aged care facilities and Ambulance Victoria act accordingly and implement their plans and responses.

DHHS provides Heat Health Alert information feed to the VicEmergency platform which is displayed as a preparedness layer. Preparedness information will link back to www.betterhealth.vic.gov.au/heat and Chief Health Officer alerts where relevant.

4.2.3 Warning Messages

The State will coordinate messaging to the community and the Emergency Management Commissioner may issue warnings through the State's warning platform about forecast extreme heat events so that everyone can arrange to protect themselves, their family, their neighbours, and the broader community as much as possible from the effects of extreme heat.

4.2.4 Community information

The collaboration between agencies is necessary to ensure the public receives consistent and complementary messaging. Communication may include channels such as media conferences, radio, mainstream advertisements, and social media to target specific groups or provide heat health messages.

Throughout the year agencies undertaken pre-emptive community messaging to prepare the community on the effects of heat.

The following describes the roles and responsibilities for community information in the lead-up to, or during, an extreme heat event.

Role of SCoT

The Emergency Management Commissioner (EMC) will convene the State Coordination Team (SCoT) to identify the impacts and consequences of an extreme heat event.

Role of EMJPIC

The EMC may engage the support of Emergency Management Joint Public Information Committee (EMJPIC) to ensure the state-level messages from all agencies with a role or responsibility in managing the impact and consequences of an extreme heat event are prioritised and included in the key messages to the public. This may also include the integration of messaging across all emergencies, such as fires, storm, etc.

The Chair of EMJPIC will, as necessary, convene senior communications representatives from agencies responsible for heat impacts and consequences, referred to as EMJPIC-Heat.

EMJPIC-Heat will coordinate across the senior communications representatives of:

- the Chief Health Officer (CHO) who is responsible for providing information about how the community can stay healthy in the lead up to and during an extreme heat event. Once the heat health temperature threshold for a specific weather forecast district has been reached, the CHO issues a heat health alert for that district. The CHO, will provide information to the health sector and community in collaboration with EMJPIC-Heat. The CHO can approve Advice messages, if required.
- Department Environment, Land, Water and Planning (DELWP) Energy in collaboration with the Australian Energy Market Operator (AEMO) who are responsible for appointing a single industry spokesperson to speak on behalf of the Victorian Electricity Supply Industry (if the triggers for the single industry spokesperson are met and the industry is in agreement) when there are widespread and prolonged outages affecting the State.
- Department Economic Development, Job, Transport and Resources, Emergency Management who are responsible for coordinating with:
 - Public Transport Victoria (PTV) to providing information about potential or actual impacts to infrastructure in line with the Public Transport Disruption Sub-Plan
 - the Chief Vet who is responsible for providing information about how the community can ensure the welfare of their animals in the lead up to and during a heat event

If EMJPIC-Heat is convened without the State control function being activated the agency leading the predominate consequence will be responsible for coordinating key

messages and agencies/departments will publish these through their normal channels based on the joined-up approach established by EMJPIC-Heat.

Where the State control function has been established and is being supported by the activation of the State Control Centre (SCC), senior agency representatives will provide approved key messages through EMJPIC-Heat to the SCC Public Information Section for consideration and incorporation into warnings and broader public.

Role of State Controller – Heat

During an extreme heat event, the EMC, or the State Controller-Heat (SC-H) (when appointed) may determine if a Warning or Emergency Warning need to be issued. This decision includes determining in consultation with the Public Information Officer which warning template will be used and whether it is to be a weather district based or targeted local area (eg: in the case of power supply load shedding).

State tier extreme heat spokesperson(s)

The EMC, the CHO and/or the SC-H (if appointed) are the primary spokespersons to ensure a coordinated approach to state media and to the community regarding public safety and whole-of-government arrangements.

The EMC will determine if secondary spokespersons are required, based on whether significant impacts and/or consequences (eg: energy, transport, etc) are occurring.

Individual agencies may speak to the media regarding their own activities, however this needs to be coordinated through EMJPIC. The rostered SCC spokesperson may be utilised to communicate key messages.

Regional tier extreme heat spokesperson(s)

At the regional tier; the Regional Controllers (Class 1) will ensure that the State Key Messages developed by EMJPIC-Heat are incorporated and tailored to the regional setting.

The Regional Emergency Response Coordinators (RERCs) in conjunction with the Regional Health Commander (Ambulance Victoria), the DHHS and the Regional Controllers (Class 1) will ensure the integration of heat communications at the regional tier.

5 Collaboration

5.1 Heat emergency management

Victorian emergency management arrangements cover all activities before, during and after an emergency. As outlined in the EMMV, the arrangements apply a systematic approach, with a focus on mitigating risks before, during and after an emergency to reduce the potential impact and consequences of the emergency on the community.

Consequently, individuals and agencies with a role or responsibility for managing the impact and consequences of heat events will become active before, during and after the event.

Extreme Heat is a Class 2 emergency where there is no primary incident to manage, and the traditional command and control structure is not the most effective process for consequence management. There is no specific control function at the Regional tier, the role is coordination of agencies who have responsibilities for managing consequences associated with heat. Further information about how this will operate at the regional tier is contained in section 5.2.4.

The approach to managing this type of emergency is to appoint a State Controller – Heat (SC-H) who will work through the State Coordination Team (SCoT) to coordinate agencies and departments with specific roles and responsibilities relating to the consequences of an extreme heat emergency.

The main emergency management tasks during extreme heat events are:

- ensuring the information to the public from agencies with emergency management responsibilities are coordinated, consistent and complementary
- ensuring the impact and consequences of the extreme heat event on the community are identified and managed in an integrated and coordinated manner at a State and Regional level
- ensuring agencies and organisations that are responsible for areas where the consequence of extreme heat occurs have plans in place to prepare and respond to extreme heat, that they enact these plans when required, and manage the consequences
- Coordinating the whole-of-government response to the varied emergencies caused by the extreme heat.

Extreme heat events involve many agencies responding to a wide range of emergencies caused, or influenced by the high temperature. These include health, energy and transport incidents, major bushfire, and storm events. The responsible agencies individually manage these, with whole-of-government coordination.

5.2 Victorian government management arrangements

Given the nature, potential impacts, and consequences of extreme heat, it is almost certain that the arrangements will be activated concurrently with the management of other major emergencies (Class 1 emergencies). There will need to be a close relationship between the State Controllers of Class 1 and Class 2 emergencies to facilitate effective management and strategies.

Emergency management functions for extreme heat will operate at the State and Regional tiers only through relevant agencies, departments, and organisations.

Generally, for Extreme Heat events there is no requirement to establish a specific regional or incident control function. The SERP recognises that there are some complex emergencies which require only the coordination of the consequences of the emergency across a number of agencies with shared accountability and which do not require controllers.¹

5.2.1 Emergency Management Commissioner (EMC)

The EMC is the Control Agency for extreme heat events under the EMMV Part 7 – Emergency Management Roles and Responsibilities.

The response to the management of consequences of an extreme heat event will be led from State with the EMC as the Control Agency, in partnership with Chief Health Officer (CHO), Ambulance Victoria - Director Emergency Management, and key infrastructure leaders, as required.

The State tier will provide support and continued situational awareness (intelligence) and consequence assessment at the state and regional level.

The activation of the state tier arrangements will be at the discretion of the EMC, having considered the advice of the SCoT.

Based on processes outlined in the State Operational Arrangements – Extreme Heat, the EMC may appoint a SC-H, to lead the whole of government for the management of consequences, community connection and communication with communities.

5.2.2 State Controller – Heat (SC-H)

When appointed, the SC-H will operate from the State Control Centre. The centre provides a range of services to assist with the coordination and control of emergencies and which has well-established protocols for working across all government agencies and for providing information to the community.

The SC-H does not take on responsibility for matters within another agency's portfolio. Specifically, in relation to other emergencies that may be associated with extreme heat such as infrastructure failure or major fires, as there are complementary emergency management arrangements in place under the SERP to deal with these emergencies.

¹ State Emergency Response Plan, section 3.2.3 (EMMV, Part 3)

The SC-H will:

- Develop a shared situational awareness
- Unify 'all agencies' with functional responsibilities
- Understand and manage consequences together with all relevant agencies
- Leads the development of a control strategy to manage the event and to mitigate consequences, involving all relevant agencies
- Develops communication plans and key messages in concert with all relevant agencies and EMJPIC - Heat
- Communicate the strategy, key information, and warnings
- Engage with communities that may be directly or indirectly affected
- Monitors the situation and adjusts the control strategy and communications plan accordingly.

5.2.3 Agency roles and responsibilities

Those agencies with roles and responsibilities for extreme heat, that are either specifically named in the EMMV, or who have a role to play in managing the consequences, will:

- Actively support and provide intelligence to the SC-H in managing the event and mitigating the consequences
- Implements agency plans, protocols, and policies, with regard to the agency's roles, responsibilities and accountabilities
- Collaboratively participate with lead and support agencies in the resolution of the emergency

5.2.4 Managing concurrent events

It is almost certain that an extreme heat event will occur concurrently with another emergency, such as a storm or a bushfire. The SC-H will need work collaboratively with any other controllers, particularly ensuring that extreme heat is discussed in the context of other emergencies, and that strategies, actions, outcomes, and communications developed are consistent and formed from the combined view and impact of the emergencies

The SC-H will inform regions through Regional Controllers (Class 1), Regional Emergency Response Coordinators (RERCs) and Regional Health Commanders on the expected or actual impacts and consequences and the actions being taken to manage impacts of extreme heat in their region.

Leadership at Regions will be through the RERCs in conjunction with Regional Health Commander and key members within Regional Emergency Management Team (REMT).

There is no specific control function at the Regional tier, the role is coordination of agencies who have responsibilities for managing consequences associated with heat.

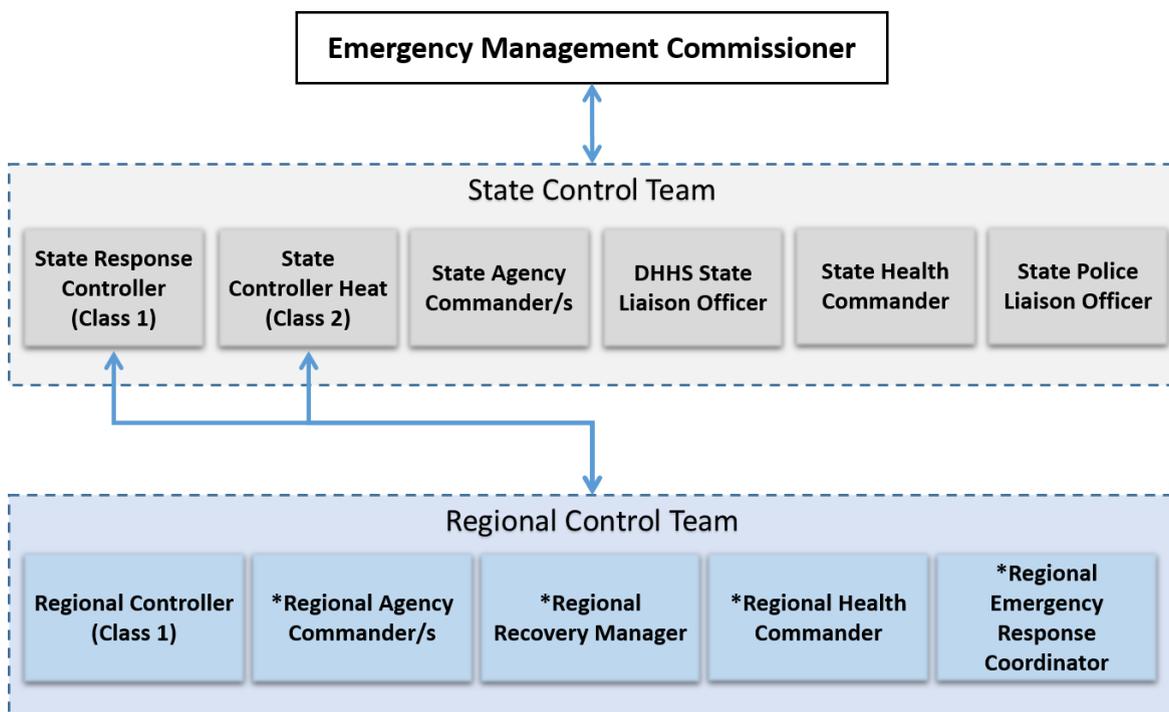
Where a Regional Controller is appointed to manage Class 1 emergencies their role is to integrate the heat considerations into the wider response activities of the region including situational awareness, key messaging, and consequence management.

To support this, the Regional Health Commander will support the RERC and Regional Controller (Class 1) by prompting that extreme heat related impacts and consequences are being considered by the REMT, and being managed by the relevant agency at the regional tier.

Regional Controllers (Class 1) will be responsible for ensuring agencies within the REMT have activated their extreme heat plans.

Where action is required to manage a consequence that is not covered by existing operational plan(s) of agencies / departments at a local or regional level, the Regional Controller (Class 1) will escalate this to the EMC, or the SC-H (where appointed).

Local Government Heatwave Plans provide the arrangements for relief should they be required.



*Normal Agency Command report still applies

Figure 3: Information Flow

5.3 Strategic coordination of heat event management

5.3.1 Role of the Emergency Management Commissioner (EMC)

Under the *Emergency Management Act 2013*, the EMC has legislated responsibilities to ensure the response and control arrangements for major emergencies in Victoria are systematic and coordinated, except for terrorism-related emergencies. The EMC is responsible for consequence management, and coordinating recovery for major emergencies.

The EMC is responsible for emergency response coordination of extreme heat events at the state tier and ensures the coordination, control, consequence management, communications and recovery functions of these events are integrated and effective.

5.3.2 Role of State Coordination Team (SCoT)

The State Coordination Team (SCoT) supports coordination functions of the EMC as necessary. It sets the strategic context of the readiness for, response to and recovery from major emergencies.

SCoT will routinely convene at least once a week from November to the end of March, or as required, for readiness planning:

- Review weather forecasts for the next 7 days
- Review Heat Health Alert (HHA) status for the next 6 days.
- Determine the need to convene over the next 7 days to monitor the potential or actual instances of heat impacts and consequences

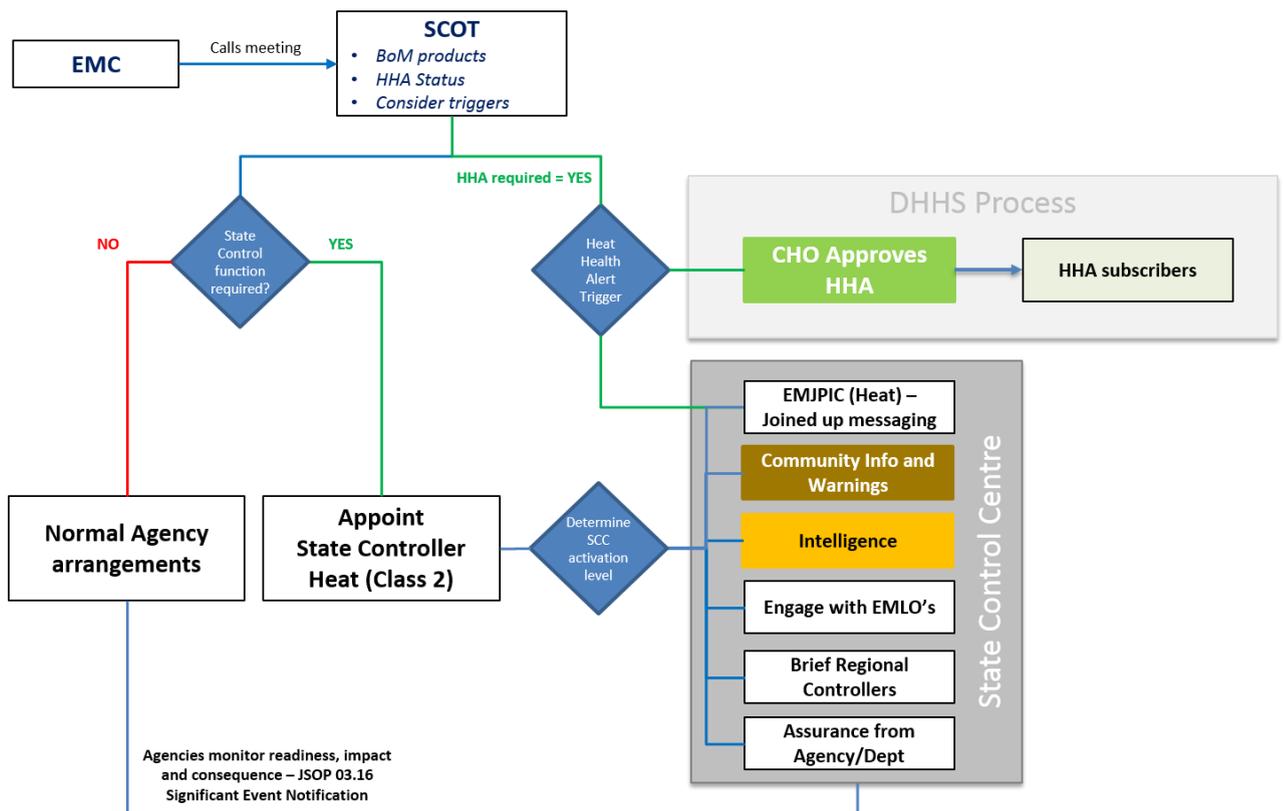


Figure 4: SCoT extreme heat consultation process.

Based on the weather forecast, the EMC will after consultation and recommendation from SCoT:

- determine the need for a control function to be established, including the need to appointment of a SC-H in line with the trigger considerations within the State Operational Arrangements – Extreme Heat.
- determine the activation level of the SCC

If the decision is taken not to establish a control function, the EMC may:

- request EMJPIC-Heat to be convened to ensure a joined-up approach to community messaging
- request SCoT representatives of agencies and departments with roles and responsibilities related to heat, to ensure their organisations arrangements are appropriate and reported back to SCoT

If the Heat Health Alert temperature thresholds are reached:

- CHO will determine the need for issuing Heat Health Alerts and contact EMC
- Prior to the CHO issuing the HHA, the EMC will discuss heat consequence with the CHO and other relevant agencies as determined by EMC
- Post the heat consequence discussion:
 - EMC (as Control Agency) will determine the requirement for heat consequence messaging, facilitating this through EMJPIC-Heat
 - DHHS will issue the HHA to subscribers

SCoT will utilise existing coordination structures within energy, transport, health, education, and agriculture to manage and monitor the consequences, community connection and communications.

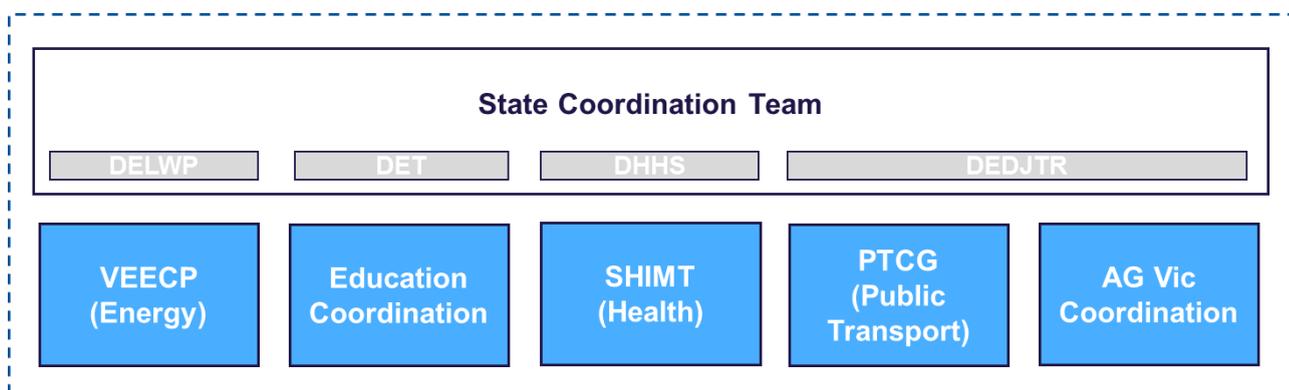


Figure 5: Formal governance groups that support SCoT representatives

Government departments and other agencies bring information on impacts and consequences to the State Emergency Management Team (SEMT) and will be notified about the potential for or occurrence of an extreme heat emergency through the SEMT.

5.3.3 Health and medical coordination

During an extreme heat event, the DHHS has a support function and coordinates the health response from their State Emergency Management Centre (SEMC).

The State Health Emergency Response Plan (SHERP) outlines the arrangements for coordinating the health and medical response to emergencies. The SHERP is a sub-plan of this State Emergency Response Plan and can be found at: www.health.vic.gov.au/sherp/

The CHO and the State Health Coordinator and others deemed necessary (from time to time) from the SHERP participate in the SCoT to ensure the heat health response is integrated with the response of other functional sectors in a whole-of-government approach.

At the state tier, the State Health Incident Management Team (SHIMT) may be convened to facilitate the coordinate response to the health and medical impacts.

5.3.4 Pre-Hospital Coordination

The State Health Commander, a nominated Ambulance Victoria Manager under SHERP, is responsible for directing the pre-hospital response to an emergency at the state tier. They participate as a member of the SHIMT and liaise directly with the State Health Coordinator. The State Health Commander is part of the State Control Team (SCT), SEMT and SCoT (as required, including for extreme heat).

The State Health Commander operates out of the Ambulance Emergency Operations Centre, to oversee an integrated the whole of health response, by Ambulance Victoria and other agencies who provide pre-hospital support.

5.3.5 Public Transport Coordination Group (PTCG)

The Public Transport Coordination Group (PTCG) is a public transport sector specific Emergency Management Team (EMT) convened to plan the detailed coordination of a public transport disruption emergency or threat.

The PTCG provides the operational framework, subject matter experts and essential conduits to the partner organisations necessary for coordinating the response and recovery plans for a major public transport disruption emergency or threat.

As the control agency for major public transport disruption emergencies, PTV chairs the PTCG and provides the liaison to the State and Regional EMTs as required.

Each of the Public Transport Operators have a summer preparedness plan that outlines the activities and actions they will take in response to a range of hazards including extreme heat.

DEDJTR represents the transport portfolio in whole-of-government activities. DEDJTR and PTV are both represented on the SEMT to facilitate cross sector coordination.

5.3.6 Electricity coordination

In the case of 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.

Within this protocol, AEMO conducts a teleconference with the affected electricity businesses, DELWP, Energy Safe Victoria, DHHS and the SCC Energy EMLO, where relevant. The purpose of the teleconference is to communicate and share information during a significant energy related event.

Relevant information from these teleconferences is compiled in a Victoria Power Update report.

DELWP uses this information to brief SCoT and the SEMT and to ensure the extreme heat response is integrated with the response of other functional sectors in a whole-of-government approach. DELWP also uses the information to inform and advise the Minister for Energy, Environment and Climate Change on the situation and any action that should be undertaken.

Further information about the planning and preparation undertaken within the energy sector for extreme heat events is included in section 6.2 of this plan.

5.3.7 Education Coordination

The Department 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. To this end, DET works closely with the early childhood sector, Catholic Education Commission Victoria, and Independent Schools Victoria.

Heat Health Alerts issued by the DHHS are circulated by DET to all government and non-government schools and early childhood services in advance of heat health events. From time to time, DET also distributes communiques regarding associated issues, for example, the risks associated with leaving children in cars during hot weather.

Schools

Schools do not close on days of extreme heat. If there are extreme conditions, midday recess may be reduced to no less than thirty minutes, and dismissal time may be adjusted accordingly.

These requirements enable individual schools to tailor arrangements to accommodate conditions.

Students are only sent home when there is someone to look after them. Teachers must remain on duty until the normal time to supervise those students who remain at school.

Early Childhood Services

While there is no statewide policy regarding the management of extreme heat for early childhood services, having regard to the vulnerability of young children, individual services are required to have policies and procedures in relation to:

- Health and safety, including matters relating to
 - Nutrition, food and beverages, dietary requirements
 - Sun protection
 - Water safety, including safety during any water-based activities
 - Administration of first aid
- Providing a child safe environment

5.3.8 Animal Health Coordination

DEDJTR and DELWP have joint responsibilities to manage the health of animals within Victoria. The Victorian Emergency Animal Welfare Plan, provides for the coordination of activities to manage the impacts of emergencies on the health of wildlife, livestock, and companion animals.

DELWP is responsible for coordinating wildlife health. Activities will be localised to dense single species populations and will be run regionally.

DEDJTR (Agriculture Victoria) is responsible for the health of livestock and companion animals.

5.3.9 Municipal council coordination

Each municipal council should have a municipal heatwave plan as a part of the Municipal Emergency Management Plan, which they activate on receipt of a HHA.

Municipal councils have a relief and recovery role and are also the primary source of information about the community, community networks, infrastructure, and industry in the local area. The inclusion of local knowledge of this type is essential for managing the consequences of an extreme heat event.

5.3.10 Regional Response Coordination - Victoria Police

Victoria Police, Regional Emergency Response Coordinators (RERCs) remain responsible for emergency response coordination at the regional tiers of emergency response management during heat event.

They provide support to the Regional Controller (Class 1) in assuring that agencies / departments with roles and responsibilities for extreme heat are engaged and performing their function(s).

The EMC liaises with the RERCs through the Senior Police Liaison Officer (SPLO). If there are concerns about the effective control of extreme heat impacts and consequences at the regional tier the RERC will escalate these concerns to the SPLO.

5.3.11 Regional Recovery Coordination - DHHS

DHHS Regional Recovery Coordinators (RRCs) remain responsible for the coordination of the relief and recovery services at the regional tier during and after heat event.

5.4 Governance arrangements for heat emergencies

During a large-scale emergency, the Victorian Government's Security and Emergency Management Committee of Cabinet (SEMC) provides whole of government ministerial oversight.

The State Crisis and Resilience Council (SCRC) provides SEMC with assurance that the broad social, economic, built and natural environmental consequences of the emergency are being addressed at a whole of government level. The State Crisis and Resilience Council also has responsibility for the oversight of the development of a whole of government communications strategy for the approval of Security and Emergency Management Committee.

Neither the Security and Emergency Management Committee nor the State Crisis and Resilience Council have an operational response role.

The EMC manages the state response to major emergencies including extreme heat events, through the following key teams:

- State Coordination Team (SCoT);
- State Emergency Management Team (SEMT);
- Emergency Management Joint Public Information Committee (EMJPIC)

The following table indicates the function and membership of each team.

TEAM	ROLE/ FUNCTION	MEMBERSHIP FOR HEAT EMERGENCY
State Coordination Team (SCoT)	<p>Oversee the coordination functions and responsibilities on behalf of the EMC</p> <p>Sets the strategic context of the readiness, response, relief and recovery</p>	<p>Emergency Management Commissioner (Chair)</p> <p>Senior Police Liaison Officer (SPLO - State Response Coordination)</p> <p>State Relief and Recovery Manager (SRRM)</p> <p>DHHS State Liaison Officer (DHHS SLO)</p> <p>State Response Controller (SRC)</p> <p>State Controller – Heat (if appointed)</p> <p>Chief Health Officer (CHO)</p> <p>State Health Coordinator</p> <p>State Health Commander</p> <p>State Consequence Manager (SCM)</p> <p>DELWP Executive Director, Energy Policy and Program (Energy focus)</p> <p>DEDJTR Executive Director, Emergency Management (Transport and Agriculture focus)</p> <p>DET Executive Director, Emergency Management (Education focus)</p>
State Control Team (SCT) -	<p>Oversee the control functions and responsibilities on behalf of the EMC.</p> <p>Implements the strategic context of the readiness, response, and where appropriate the relief and recovery phases.</p>	<p>State Response Controller [Class 1] or State Controller [Heat – Class 2] (Chair)</p> <p>Emergency Management Commissioner</p> <p>Chief Officer CFA, DELWP, MFB and VICSES (or State Agency Commanders)</p> <p>Senior Police Liaison Officer (SPLO)</p> <p>State Consequence Manager (SCM)</p> <p>State Relief and Recovery Manager (SRRM)</p> <p>DHHS State Liaison Officer (DHHS SLO)</p> <p>State Health Commander, AV</p> <p>Others as determined by EMC / SRC.</p>
State Emergency Management Team (SEMT)	<p>Facilitate discussions to enable agencies and departments to develop a consistent situational awareness regarding the emergency(s)</p> <p>Identify and manage strategic risks and consequences</p> <p>Develop as state strategic plan outlining the high level actions of all agencies and departments.</p>	<p>Refer to the State Governance Arrangements</p>

EMJPIC Heat	<p>Formation and implementation of strategic media and communication where an emergency requires multiple agency response, is the portfolio responsibility of multiple Ministers or is an incident that has the potential for significant consequences for communities.</p> <p>Support agencies and departments in strengthening whole of Victorian Government communications and Regional / Incident communications</p> <p>Discuss media and communications function and responsibilities.</p>	<p>General Manager, Media and Communication, EMV (Chair)</p> <p>Director, Communications VicPol</p> <p>Director, Communications and Media DHHS</p> <p>Executive Director, Communications DELWP</p> <p>Director, Strategic Communications DEDJTR</p> <p>Executive Director, Communications, DET</p> <p>Others as determined by EMC / EMJPIC Chair</p>
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Table 2: State governance teams

5.4.1 Emergency Management Teams

To organise a whole of government approach to the management of an extreme heat event, Emergency Management Teams (EMTs) are convened as follows:

- State Emergency Management Team (SEMT)
- Regional Emergency Management Team (REMT)

An EMT is the collaborative forum where agencies with roles and responsibilities during an emergency meet to discuss the risks and likely consequences of the extreme heat event and plan a whole-of-government approach to the management of these risks and consequences.

An EMT ensures the response and recovery agencies, other agencies, local government and service providers are coordinated in their approach. The inclusion of a local government representative in an EMT is particularly important, as they are a primary source of information on local communities and the local area.

Not all agencies have the capability to provide a representative for EMT at each tier and it may be necessary, in some circumstances, for representatives to represent their agency at both the State and Regional tiers.

Information on EMT can be found in the Emergency Management Team Arrangements 2014, which are found at www.emv.vic.gov.au/responsibilities/incident-management

5.4.2 Other support agencies

Almost all government agencies and a wide range of non-government agencies have a role in managing the impact and consequences of heat events on their interests.

Agencies additional to those already discussed in this sub-plan include:

- Ambulance Victoria
- Bureau of Meteorology
- Coroner's Court of Victoria
- Country Fire Authority
- Department of Education and Training
- DEDJTR Tourism Branch/Regional Tourism Boards
- Funeral directors
- Metropolitan Fire Brigade
- Registrar of Births, Deaths and Marriages
- Victoria State Emergency Service
- Victorian Institute of Forensic Medicine

All these agencies should have internal plans for managing their responsibilities.

Most agencies manage their resources from their respective operations centres and may deploy an Emergency Management Liaison Officer (EMLO) into SCC, as required, to provide advice in relation to actions undertaken by the agency.

A senior agency or functional representative may attend EMT meetings, as required.

6 CAPABILITY

6.1 Health planning

6.1.1 Department of Health and Human Services (DHHS)

The DHHS provides heat health information and resources to other government departments, departmental program areas, local government and service providers, which in turn provide information and services to at-risk groups and their carers.

The DHHS heatwave framework comprises:

- Heatwave Plan for Victoria – protecting health and reducing harm from heatwaves
- Heat health alert system
- Heatwave Planning Guide - Development of heatwave plans in local councils in Victoria
- Heatwave plan review tool
- Heat Health Information Surveillance System
- a communications strategy with a comprehensive range of communication resources.

This information can be found at: www.health.vic.gov.au/environment/heatwaves.htm

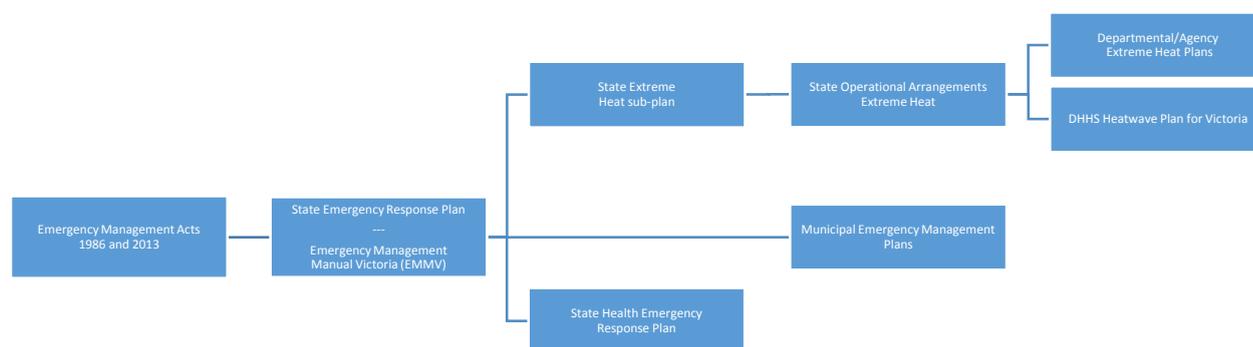


Figure 6: Authorising flow for extreme heat plans

The DHHS implements the Heatwave Plan for Victoria to plan and prepare for, as well as respond to, heatwaves.

In the planning and preparation phase, the DHHS works with other government departments, departmental program areas, local government and service providers that provide information and services to at-risk groups and their carer's in a heatwave, to provide advice and support. Resources have been developed to assist organisations in developing and reviewing their heatwave plans.

The DHHS manages Heat Health Alert System, which, operates from December until the end of February, as required.

Additionally, a communication strategy is implemented to provide heat health information to health and community service providers, non-government organisations and community groups who will further distribute information to their clients and their carers.

The DHHS has a number of programs it uses to reduce the impact of heat events on public housing residents. These include:

- a 'Keeping in Touch' program for public housing tenants aged 75 years and over. The program offers a weekly contact service for those eligible tenants who elect to take up the offer. As well as checking on their health and wellbeing, the weekly call will include a notification of hot weather expected and tips on keeping cool.
- equipping high-rise public housing apartment buildings with electrical generators to operate core functions and elevators to ensure that tenants will be able to safely exit premises in the event of a power outage. The department has also identified and prepared community rooms within a number of housing complexes that can be maintained as cool places available to tenants during heat events.
- heat health information to community residential services for Victorians with disabilities. This includes conducting service sector forums to provide advice on managing clients and identifying planning implications to minimise the health impacts of a heat event.

6.1.2 Department of Education and Training

The Department of Health and Human Services issues heat health alerts to the Department of Education and Training (DET).

In turn, DET distributes circulars to children's services and schools to advise of impending heat conditions. This information is also distributed to TAFE facilities, the Catholic Education Office and Independent Schools Victoria.

In response to heat health alerts, children's services and schools may choose to alter their timetables to minimise the impact of heat conditions on children.

6.1.3 Ambulance Victoria

As part of its Emergency Response Plan, Ambulance Victoria has a Heatwave Sub-plan. This enacts a whole of organisation response to scale up available operational resources to manage increased workload in the community, and manage staff welfare.

6.1.4 Visit Victoria

International visitors, especially those visiting from northern European countries, are particularly vulnerable to heat related safety risks.

DEDJTR Tourism branch with the DHHS has produced a summer safety video which includes information on heat health-related advice for visitors. This video primarily displayed at the Melbourne Visitor Centre and other accredited visitor information centres, and is also working with tourism operators regarding preparation for emergency events including extreme heat events.

6.1.5 Municipal councils

Because they are the closest tier of government to local communities, municipal councils have a central role in building community capacity and resilience to prepare and plan for, respond to and recover from emergencies.

Each municipal council should have a heatwave plan as a part of the Municipal Emergency Management Plan. These plans should be multi-agency.

The DHHS provides guidance and support to municipal councils on developing these plans, including through their Heatwave Planning Guide - Development of heatwave plans in local councils in Victoria, which can be found at www.health.vic.gov.au/environment/heatwaves-planning

The DHHS advise municipal councils to activate the arrangements in the plan in preparation for heat events. This may include preparing cool public environments, ensuring appropriate staffing levels and considering staff and client safety. This might also include updating individual heat management plans for clients and vulnerable client lists as well as preparing a business continuity services plan.

6.2 Electricity

The electricity industry in Victoria is wholly privately owned and operated. Responsibility for restoration of supply rests with the electricity distribution and transmission businesses that own and operate the network. Each electricity network business prepares and maintains its own Emergency Management Plan. The Australian Energy Market Operator (AEMO) oversees overall system security of the electricity transmission system and can act to protect and maintain system security.

AEMO has a Power System Emergency Management Plan (PSEMP) to ensure a coordinated response from the power companies in a power emergency.

AEMO also maintains a number of policies that contribute to the coordination of the energy sector, these include the Victorian Energy Emergency Communications Protocol (VEECP), the Single Industry Spokesperson Protocol, and the Guidelines on Planned Network Outages of Day of Extreme Heat.

DELWP liaises with the electricity businesses and advises government on the potential or actual implications of electricity disruptions.

During an extreme heat event, it is possible for the demand for electricity to exceed the available supply. If this were to occur, when there is sufficient time, the electricity industry may shed loads in accordance with established protocols. However, power outages may also be unplanned, to rectify localised safety issues, giving the industry no opportunity to prioritise the customers that may be affected.

Electricity distributors maintain a register of the addresses of power dependent people (termed 'life support customers'), supplied to them from electricity retailers. Where an electricity has more than 20,000 customers without power, they are required to inform DHHS of the street address of these customers when it is expected that electricity supply will be disrupted for a period greater than 20 hours. Once DHHS has received this reporting, it will decide on the appropriate actions to be undertaken to ensure their wellbeing needs are being met. DHHS also participate in industry led teleconferences, called under the VEECP.

On days when the temperature is predicted to exceed the heat health alert threshold, businesses may cancel non-essential electrical works or make alterations to facilitate completion of the works and restoration of electricity supply earlier in the day.

6.3 Public transport

Individual transport operators are responsible for their own emergency management plans.

Public Transport Victoria (PTV) oversees the emergency management plans of public transport operators.

Transport operators undertake activities relating to their own infrastructure. Most roster extra maintenance staff during extreme heat events. Additional inspections are carried out on signalling equipment and track structures, and temporary speed restrictions are put in place where necessary to reduce the load on rail tracks.

Public Transport Victoria (PTV), Metro Trains Melbourne (MTM), Yarra Trams and V/Line all have emergency plans and protocols in place to deal with service disruption, which can be quickly put into place should disruptions occur. These include:

- using weather warnings as a trigger to roster additional maintenance and customer service staff
- Community Information via social media and input to EMJPIC
- replacing affected passenger rail services with buses
- using trucks to transport rail freight where rail lines are unavailable and providing (where possible) identified road freight routes to minimise subsequent damage to local roads
- activating protocols with other departments for the management of school bus services.
- DEDJTR and PTV communicating advance warnings and activating appropriate contingency plans where possible
- MTM undertaking routine inspections of train lines on a regular basis, with additional inspections during periods of hot and wet weather
- V/Line planning for weather and other disruptions, with various mitigation measures including special procedures, conditions and operating limits
- Yarra Trams undertaking additional inspections of infrastructure and maintenance of rolling stock prior to and after extreme heat events
- VicRoads undertaking road maintenance inspections on a regular basis during periods of hot weather to minimise heat damage.

6.4 Water

Extreme heat events may cause a significant increase in the demand for water services, particularly drinking water. There may be concurrent risks, such as the potential loss of power supplies, which are required for water distribution and treatment.

DELWP has portfolio responsibility for drinking water and wastewater services in Victoria and works in conjunction with nineteen water corporations. Water corporations have a range of strategies in place to limit any disruption of water supplies before, during and after extreme heat events including:

- bringing forward or postponing any scheduled work
- increasing water production, treatment and distribution to meet expected demand increases
- monitoring water system performance to manage any reduced pressure.
- promptly repairing water main breaks to minimise outage times
- providing alternative power supplies at key water sites
- providing alternative water supplies, such as bottled water or temporary tanker water.

DELWP and water corporations hold emergency planning meetings prior to extreme heat events to ensure all agency have planned and are coordinated for the event.

6.5 Animal welfare

The Victorian Emergency Animal Welfare Plan integrates existing, everyday legislative requirements for animal welfare with the state's formal emergency management arrangements, describing:

- the planning requirements for animal welfare support services, including government agencies and non-government organisations, in emergency preparedness, response, relief and recovery,
- the roles and responsibilities of agencies, organisations and owners and carers that have a role in planning for and providing emergency animal welfare support services, and
- operating arrangements during an emergency between animal welfare agencies and organisations, emergency service agencies and animal owners and carers.

The plan is a joint responsibility of DEDJTR and DELWP.

Under this plan, DEDJTR is responsible for coordination of activities relating to all animals other than wildlife while DELWP is responsible for coordination of activities relating to wildlife.

The plan can be found at:

www.agriculture.vic.gov.au/agriculture/emergencies/response/victorian-emergency-animal-welfare-plan

Appendix A: People vulnerable to the effects of heat

Extreme Heat can affect anybody. The following population groups may be susceptible to heat-related illness:

- people aged over 65 years, especially those living alone
- people who have a medical condition such as heart disease, high blood pressure, diabetes, cancer or kidney disease
- people taking medications that may affect the way the body reacts to heat such as:
 - allergy medicines (antihistamines)
 - some blood pressure and heart medicines (betablockers and vasoconstrictors)
 - seizure medicines (anticonvulsants)
 - thyroid medications (thyroxine)
 - water pills (diuretics)
- people who have a mental illness, particularly those on medication (antidepressants or antipsychotics)
- people with problematic alcohol or other drug use such as amphetamines
- people with an illness or infection that causes dehydration or fever
- people with cognitive impairment who may not be able to identify or communicate their discomfort or need for water
- people who have trouble moving around (such as those who are bed bound or in wheelchairs)
- people who are overweight or obese
- pregnant women, breastfeeding mothers, babies and young children
- people who work in hot environments or are physically active outdoors (such as gardeners and labourers)
- people with health conditions that impair sweating including people with, skin disorders (including sunburn, prickly heat and extensive scarring from burns), congenital impairment of sweating, cystic fibrosis, quadriplegia and scleroderma
- people who are unable to acclimatise
- homeless people
- people who are dehydrated
- people of low socioeconomic status
- people who live alone or are socially isolated
- people with very low cardiovascular fitness
- visitors from other countries, especially from northern European countries
- non-English speaking people who may not be able to understand heat event messaging or have reduced access to, or understanding of, health or support services.