

Heat Health Alert System 2010–2011

health

Information and guidance – December 2010

Introduction

The department's Heat Health Alert System has been developed to notify councils, departmental program areas, hospitals, and health and community service providers of forecast heatwave conditions which are likely to impact on human health.

The heat health alert is only intended to notify recipients that mean temperatures are predicted to reach and exceed heat health thresholds. The alert is not intended to dictate when service providers take action; heat health alert contacts are advised to monitor local conditions and take action in accordance with their own heatwave plans, service continuity plans and occupational health and safety (OH&S) plans.

The Heat Health Alert System has been reviewed and will operate until March 2011.

Weather forecast districts

The Country Fire Authority, the Department of Environment and Sustainability and the Bureau of Meteorology have aligned total fire ban districts, fire danger boundaries and weather forecast districts with local government authority boundaries¹. The Department of Health has adopted these same boundaries for the Heat Health Alert System (Figure 1).

Figure 1: Weather forecast districts and corresponding heat health temperature thresholds

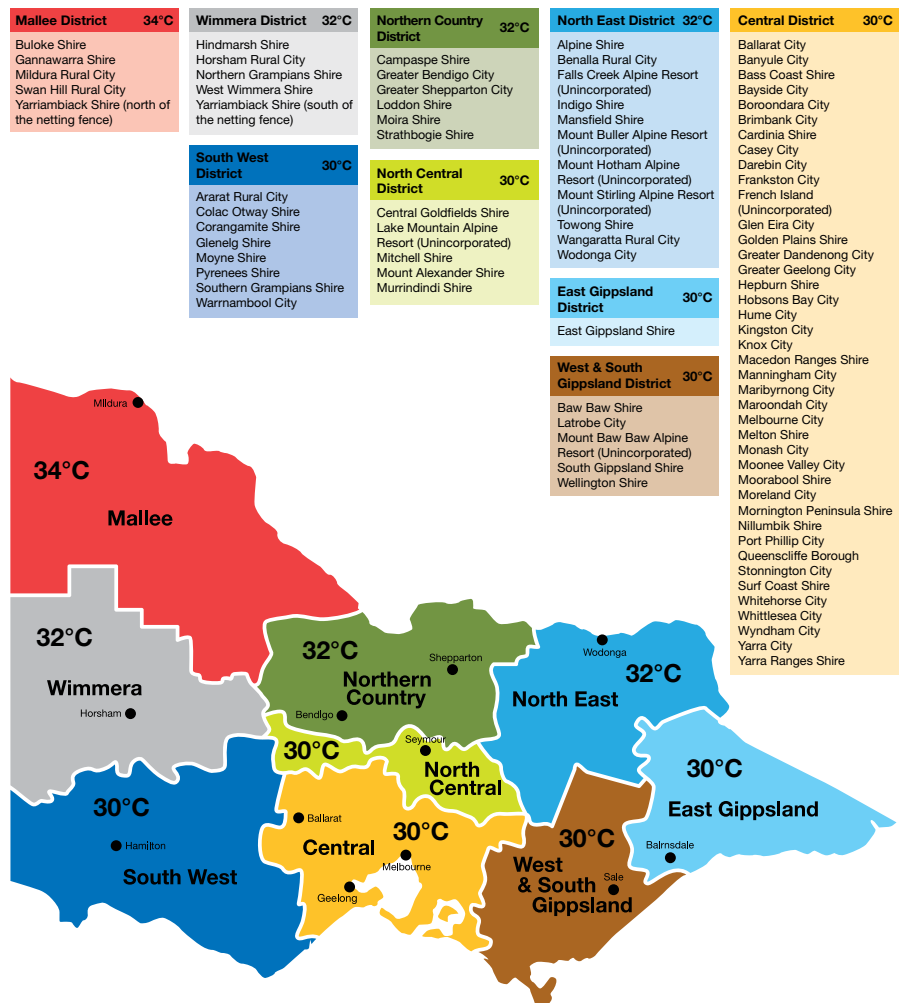


Image adapted from the Country Fire Authority's 'Know your total fire ban district'.

¹ With the exception of Yarriambiack Shire Council which is divided between the Mallee and Wimmera districts along the netting fence.

The weather forecast districts are based on areas of similar weather patterns and temperatures. Weather patterns are relatively consistent within each district (as shown in Figure 2) however the North East District has the most considerable variation due mainly to the difference in temperatures experienced in the alpine areas and along the NSW border. It is important that heat health alert contacts continue to monitor and respond to local conditions.

Heat health temperature thresholds

Based on a range of evidence and information², the Department of Health has identified heat health temperature thresholds for Victoria, above which heat-related illness and mortality increases substantially.

These thresholds differ across the state to recognise the higher temperatures experienced in northern parts of Victoria (Figure 2). A heat health temperature threshold has been established for each of the nine weather forecast districts as shown in Figure 1.

The department will monitor the Bureau of Meteorology forecast daily minimum and maximum temperatures and calculate the daily average temperature for each weather forecast district (Figure 3).

The average temperature for any given day is the average of the forecast daily maximum temperature and the forecast overnight temperature (which is the daily minimum for the following day).

Figure 2: Map of Victoria's weather forecast districts showing the 97th percentile of observed mean temperatures during the summer months of 1980–2009 (using 1°C temperature bands)

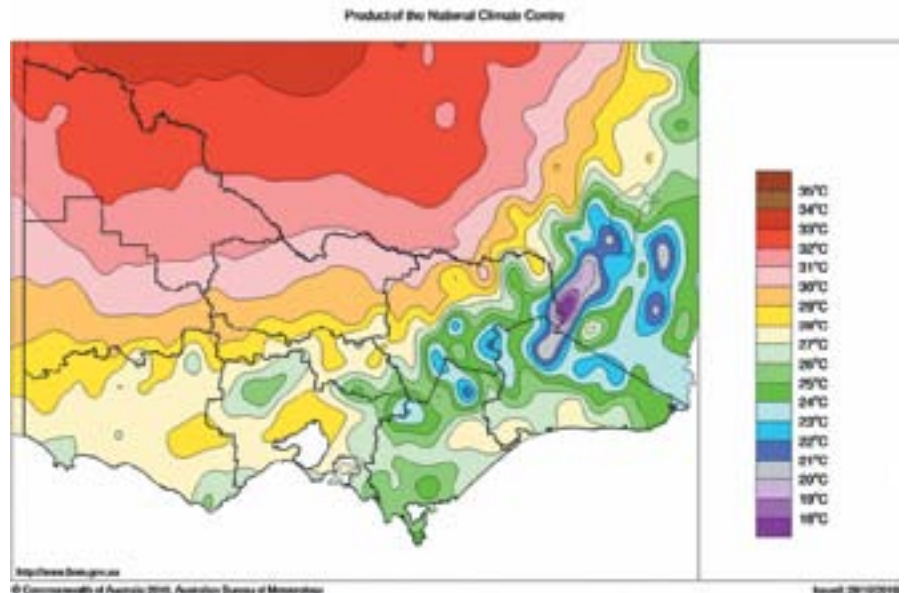


Image courtesy of the Australian Bureau of Meteorology

Figure 3: Example calculation of the daily average temperature

Calculating the average temperature

The average temperature is calculated from the forecast **daily maximum** (in this case Tuesday) and the forecast overnight temperature, which is the **daily minimum for the following day** (in this case Wednesday).

An example of this calculation is demonstrated below.

Melbourne

Tuesday

Min: 20°C

Max: 38°C

Wednesday

Min: 25°C

Max: 31°C

Average calculation for Tuesday

$$(38 + 25)/2 = 31.5^{\circ}\text{C}$$

The threshold for Melbourne = average of 30°C.

The temperature forecast indicates that the threshold will be exceeded.

This calculation will be repeated for each of the seven days included in the daily forecast.

² Such evidence and information includes the Monash University research on the relationship between mortality and temperature, the Heat Health Information Surveillance System findings for the summer period November–April between 2006 and 2010, the Bureau of Meteorology analysis of climatic conditions and mean temperatures for each of the newly realigned weather forecast districts, findings from the Victorian Heatwave Framework Evaluation in relation to the 2009–2010 Heat Health Alert System, and heat health thresholds adopted in other Australian states and territories.

When forecast average temperatures are predicted to reach or exceed the heat health temperature threshold for a specific weather forecast district, the department will issue a heat health alert for that district.

Heat health alerts

The heat health alerts aim to notify relevant local government councils and service providers that heatwave conditions are imminent.

The department will also be considering other factors that may influence vulnerability, such as very high maximum or minimum temperatures and high temperatures over a prolonged consecutive period. High temperature alerts may be issued in these circumstances even if the average temperature threshold is not exceeded. Contacts should remember that prolonged high temperatures below threshold levels can still impact on health services.

Heat health alerts will be issued by email up to six days prior to forecast heatwave conditions and should provide recipients with early warning. Repeat alerts may be issued as

confirmation closer to the event and a SMS alert may be issued in emergency situations. The alerts may be issued either on a state wide or regional basis.

Once a heat health alert is issued, local councils, departmental program areas and health and community service providers should respond in accordance with their heatwave plans.

Whilst the department will be monitoring forecast temperatures across the state, it is important for councils to continue to monitor local conditions. **It may be necessary for councils to activate heatwave plans in the absence of a heat health alert being issued.** Council contacts are encouraged to monitor local conditions using the Bureau of Meteorology forecasts and act accordingly.

In the event of major disruptions to infrastructure, the department may be unable to notify councils and organisations with a heat health alert email or SMS message. When wide-spread disruption to services occurs prior to or during a heatwave,

councils should continue to monitor local conditions and proceed with activating their heatwave plans.

The Department of Health through the State Emergency Management Centre, will issue heat health alerts to:

- local government authorities
- emergency services
- government departments and agencies
- departmental program areas
- major state-wide service providers
- peak or advocacy groups.

A more detailed list of recipients is provided in Appendix A.

The heat health alerts are available from the Department of Health website <http://www.health.vic.gov.au/environment/heatwave/agencies/alert.htm> and a Rich Site Summary (RSS) feed is also being developed.



Appendix A: Heat health alert distribution list 2010–2011

Contact group	Organisations/areas
Local government authorities	Designated contacts (minimum 2 per council)
Minister's office	Minister for Health; Ageing Minister for Housing; Children & Early Development Minister for Mental Health; Women's Affairs; Community Services
DH – Head office	DH Secretary Executive Directors Directors Executive Officers
DH/DHS – Regional	REOC Regional Director <ul style="list-style-type: none"> • EM Coordinator/Manager • Corporate Service Managers Director – Health & Aged Care <ul style="list-style-type: none"> • Public Health Manager • Regional Environmental Health Officer (REHO)
DHS – Head office	DHS Secretary Executive Directors Directors Executive Officers
DH – Program areas	<p>WICA</p> <ul style="list-style-type: none"> • Aged Care • Health Protection and Chief Health Officer • Prevention and Population Health • Integrated Care <p>Strategy, Policy & Finance</p> <ul style="list-style-type: none"> • Business Planning & Communications – Media Unit • Health Regulation and Reform – Private Hospitals Unit <p>Mental Health, Drugs & Regions</p> <ul style="list-style-type: none"> • Operations <p>Hospital & Health Services</p> <ul style="list-style-type: none"> • Performance, Acute Programs & Rural Health • Quality, Safety & Patient Experience (VHEC) <p>SECONDARY DISTRIBUTION</p> <ul style="list-style-type: none"> Metropolitan health services Rural health services Private hospitals Stakeholders <ul style="list-style-type: none"> • Adult Retrieval Victoria • Field Emergency Medicine Officers • Nurse-on-Call • Ambulance EOC • ARC Blood Service Aged care sector <ul style="list-style-type: none"> • PSRACS • DVA • DoHA

Contact group	Organisations/areas
DHS – Program areas	Disability Services Service Delivery and Performance <ul style="list-style-type: none"> • Emergency Management Branch Housing & Community Building
Emergency services	Country Fire Authority Metropolitan Fire Brigade State Emergency Services Victoria Police
Commonwealth departments	Department of Health and Ageing (DoHA)
State government departments/ programs	Department of Premier and Cabinet Department of Education and Early Childhood Development Department of Justice <ul style="list-style-type: none"> • Office of the Emergency Services Commissioner • Office of the Fire Services Commissioner Department of Primary Industries Department of Sustainability and Environment Department of Transport Information Victoria (DIIRD) Community Registers
Government agencies	Ambulance Victoria Bureau of Meteorology Centrelink Coroners Court
Statewide or major metropolitan service providers	Baptcare Brotherhood of St Laurence, Integrated Community Care Life Saving Victoria Melbourne Medical Deputising Service Multiple Sclerosis Australia (Victoria) NURSE-ON-CALL provider (Medibank Private) Personal Alert Victoria Royal District Nursing Service (RDNS) Red Cross (regional and EOC)
Peak or advocacy bodies	Aged and Community Care Australia Aged Care Standards and Accreditation Agency Alzheimer's Australia Vic (AAV) Aquatics and Recreation Victoria Australian Psychological Society Carer's Victoria Inc. Disability Emergency Management Advocacy Ethnic Communities Council of Victoria (ECCV) General Practice Victoria KidSafe Victoria Municipal Association of Victoria Pharmacy Guild of Australia Pharmaceutical Society of Australia Seniors Information Victoria (COTA) Victorian Eyecare Service