



# **2019 Municipal Heatwave Plan**

**Adopted 9 July 2019**

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## AMENDMENT HISTORY

Plan Version	Date of amendment	Summary of Amendment
1.0	June 2016	Rewrite of the Municipal Heatwave Plan
1.1	June 2019	Alignment with new State Heat Health Plan
1.1	July 2019	Adopted

This Plan will be maintained on the Moira Shire Council website.

[http://www.moiravic.gov.au/Emergency\\_Management/Heatwave](http://www.moiravic.gov.au/Emergency_Management/Heatwave)

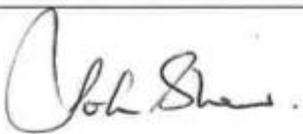
## MUNICIPAL ENDORSEMENT

This Municipal Heatwave Plan has been prepared by the Moira Shire Council Municipal Heatwave Plan Sub Committee with the authority of the Moira Shire Council Municipal Emergency Management Planning Committee (MEMPC) pursuant to Section 20 of the Emergency Management Act 1986 (as amended).

Preparation of the Municipal Heatwave Plan has included consultation with key stakeholders and partners within the municipality and is a result of the cooperative efforts of the Moira Shire Council Heatwave Planning Committee and its member agencies.

This Plan is endorsed by the Moira Shire Council MEMPC as a sub-plan to the MEMP.

## MUNICIPAL ENDORSEMENT

<p>Approved by:</p> <p>Signature: </p> <p>Name: JOHN SHAW Date: 9 July 2019</p> <p>Chair Moira Shire Council, Municipal Emergency Management Planning Committee</p>
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## ABBREVIATIONS & ACRONYMS

BOM	Bureau of Meteorology
DH	Department of Health
DHHS	Department of Health & Human Services
EMMV	Emergency Management Manual Victoria
EMV	Emergency Management Victoria
HACC	Home and Community Care
MEMP	Municipal Emergency Management Plan
MEMPC	Municipal Emergency Management Planning Committee
MERC	Municipal Emergency Response Coordinator
MERO	Municipal Emergency Resource Officer
MRM	Municipal Recovery Manager
SCoT	State Coordination Team
SEMT	State Emergency Management Team
SHERP	State Health Emergency Response Plan
NEW	North East Water
GVW	Goulburn Valley Water

## SECTION 1: INTRODUCTION

Moirá Shire Council and its partners are committed to promoting community awareness and education about the dangers of heat stress and the measures that can be adopted to mitigate the effect.

The Moira Shire Council Heatwave Plan will be used by Council and its partners in the planning for and responding to heatwave conditions. It has been developed using the general principles of emergency management as a guide to planning, preparation, response and recovery.

### WHY HAVE A HEATWAVE PLAN

Heatwaves have widespread impacts, ranging from direct impacts on our health to damage to ecosystems, agriculture and infrastructure (*Climate Council 2014*).

Australia is experiencing rising temperatures with the duration, frequency and intensity of heatwave events increasing (*CSIRO and BOM 2014*). In particular, unusual heat events in 2013, 2014 and 2017 have been documented by the Bureau of Meteorology in several special climate statements.

International and Australian experience shows that extreme heat increases the incidence of illness and death. Extreme heat also 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 on people's ability to run air-conditioners; bushfires will increase vulnerability by reducing air quality; and transport disruptions will hinder people's ability to travel.

The future climate of the Moira municipality is expected to be hotter and drier than it is today with potential impacts and costs to industries, infrastructure, environment and people.

Governments and agencies will be continually required to respond and plan for the impacts and events that extreme heat is expected to produce.

Source: Climate Ready Victoria, Hume

### AIM

The aim of our Heatwave Plan is to:

- Ensure health information and support is readily available to our community;
- Increase the capacity of our community to respond during heatwaves;
- Manage a heatwave emergency more effectively; and
- Develop long term changes in our behaviour to improve our health and wellbeing.

### OBJECTIVES

The objectives of this plan are to:

- Identify vulnerable population groups in our community and the risks they face during heatwaves;
- Develop partnerships with local organisations to better coordinate a response to heatwaves;
- Outline effective strategies and actions to implement in the event of a heatwave; and
- Build practices to evaluate the ongoing effectiveness of the plan.

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### EVALUATING THE PLAN'S EFFECTIVENESS

To ensure the Moira Shire Council Municipal Heatwave Plan remains relevant and meets the changing needs of our community, Council will review it annually after each summer and use any amendments to inform and update the Heatwave Plan.

All relevant stakeholders and partners will be invited to participate in the evaluation.

The following questions will be addressed;

- Were the actions in each stage appropriate and timely?
- What worked?
- What didn't work?
- Was information communicated effectively to stakeholders?
- Was information communicated effectively to the general community?
- What could we do differently next summer?

## SECTION 2: BACKGROUND AND CONTEXT

### LOCAL CONTEXT

Moira Shire is located on the southern banks of the Murray River, bordering New South Wales. The Shire covers an area of 4,045 square kilometres and includes the major towns of Cobram, Numurkah, Yarrawonga and Nathalia and a host of smaller towns which are supported by a diverse agricultural base.



Moira Shire Council has a population of 29,112 with a median age of 47, compared to the Victorian State median age of 37. The majority of residents, 87.9% speak only English at home, with Italian, Arabic, Punjabi, Mandarin and Filipino the most common non – English languages. Moira has 1.7% of residents that identify as Aboriginal or Torres Strait Islander. Additionally, 6.72% of residents need assistance with core activities.

Agricultural land use accounts for approximately 71% of the total land area, currently divided equally between irrigated and dry-land production.

Due to our large agriculture industry, the effects of heat on animals, both domestic and farming, should also be considered. Individual community actions have been included in the plan to address this. This plan should also be used in conjunction with the Moira Shire Municipal Emergency Animal Welfare Plan.

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Tourism is the seventh largest contributor to economic output in the municipality generating an estimated \$90 million for the local community, including approximately 510 jobs, or about 5.6% of Moira Shire's workforce.

The Moira community is serviced by local hospitals in each of the major towns along with a wide range of visiting medical and allied health service providers. As a result, health services are an important sector within the local community.

Source – Australian Bureau of Statistics, 2016

### **Moirá Shire Council has had recent experience with heat waves:**

During 27 January 2009 to 8 February 2009, Moira Shire experienced extreme temperatures, with many records set for high day and night time temperatures across Victoria, as well as for the duration of extreme heat.

The temperature was more than 42°C for five consecutive days from 28 January – 1 February, reaching a peak of 44.2°C on 30 January. The temperature was more than 37°C for 13 consecutive days through late January and early February, reaching a peak of 45.7°C on 7 February with little night time relief over this period.

In February 2017 Moira Shire Council experienced very warm temperatures, which resulted in record-breaking heat on February 10, reaching a peak of 42.4°C and 44°C on February 11, with temperatures the highest recorded in over 90 years.

Source – Department of Health  
Source – BoM. Tocumwal weather station

For the month of January 2019 the town of Yarrawonga had two days at below 30°C, with most days averaging in the mid to high 30s. From January 12 to January 17 temperatures were consistently higher than 40°C with overnight lows averaging in the 20s. From January 22 to January 25 temperatures again rose into the 40s, with Friday the 25<sup>th</sup> of January peaking at 45.8°C coming off of an overnight low of 29°C.

Source – BoM. Yarrawonga weather station

On the 25<sup>th</sup> of January a series of planned load-shedding power outages were scheduled for Yarrawonga to ease the impact on the state-wide electricity grid, lasting in duration from 30 minutes to four hours depending upon a residents' location within the town and its surrounding areas.

The planned outages, though advertised in the media and via other outlets including Moira Shire's Facebook, did result in a handful of calls to Council from residents who were hoping for advice on buildings that had generators in them so that older family members could visit those locations for the duration of the outages.

## 2019 Moira Shire Council Municipal Heatwave Plan

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### VICTORIAN CONTEXT

The January 2014 Victorian heatwave impacted health and emergency services through increased:

- Emergency department presentations.
- Ambulance Victoria responses.
- Heat-related presentations during the week of the heatwave, (621, which was higher than the 105 expected); this represents a five-fold increase.
- The Chief Health Officer reported that there were an estimated 167 excess deaths during the heatwave (858, compared to the 691 that were expected during the week of the heatwave).
- Other emergency service and health services responses.

Other significant health impacts included a 20-fold increase in ambulance call-outs, a four-fold increase in calls to nurses-on-call, and a four-fold increase to locum doctors.

Source – Department of Health

Although maximum temperatures for the January 2014 heatwave were slightly lower than those observed during earlier heatwaves, including 2009, mean temperatures were high and the heat lasted for a longer time. Victoria experienced the hottest 4-day period on record.

In early 2019 a low pressure system over the Pilbara in Western Australia persisted with severe to locally extreme heatwave conditions continuing to affect large areas of the country at times. This extreme heat spread southeast on the 11<sup>th</sup> of January as a high became established in the Tasman Sea directing a north to northwesterly flow into southeastern Australia. This resulted in a prolonged period of extreme heat over most of the inland southeast, including New South Wales, northern Victoria and much of South Australia, as well as western Queensland and the southern Northern Territory.

There was a brief break in this pattern until the heat again intensified on the 22<sup>nd</sup> of January with overnight temperatures registering as particularly high. Communities throughout Moira Shire registered consistent temperatures in the mid to high 40s through this period.

According to the Bureau of Meteorology, most of Victoria experienced record-breaking heat events and the 2018-2019 summer period became the nation's hottest on record.

In 2017, the Victorian State Government applied the Victorian Climate Change Act (2017) in response to research indicating Climate Change was a contributing factor to heatwaves and other extreme weather events.

The Act can be viewed at:

[https://www.climatechange.vic.gov.au/\\_data/assets/pdf\\_file/0033/395079/Victorian-Greenhouse-Gas-Emissions-Report-2018.pdf](https://www.climatechange.vic.gov.au/_data/assets/pdf_file/0033/395079/Victorian-Greenhouse-Gas-Emissions-Report-2018.pdf)

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### EFFECTS OF A HEATWAVE & CLIMATE CHANGE

International and Australian experience shows that extreme heat increases the incidence of illness and death. Extreme heat also 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 on people's ability to run air-conditioners; bushfires will increase vulnerability by reducing air quality; and transport disruptions will hinder people's ability to travel.

The Victorian Government's *Report on Climate Change Science and Greenhouse Gas Emissions in Victoria* (March 2012) published existing information on projections for Victoria's future climate. The projected changes include:

- More days over 35°C and higher annual mean temperature;
- Reduced average rainfall and stream flows;
- Fewer and heavier rainfall days;
- Reduced snow cover; and
- Possible sea-level rise and storm surges.

These projections suggest an increased risk of:

- Bushfires;
- Heatwaves;
- Floods;
- Drought; and
- Sea level rise and coastal impacts.

Source: Victorian Climate Change Adaptation Plan

## SECTION 3: HEAT ARRANGEMENTS

### AGENCY ROLES AND RESPONSIBILITIES

Heatwaves can cause significant impact on infrastructure and essential services, especially power, water and transport, as well as human health impacts.

Heatwaves are a Class 2 emergency under the *Emergency Management Act, 2013*. Emergency Management Commissioner is nominated as the control agency for managing the Response to heatwaves under Part 7 of the Emergency Management Manual Victoria.

Coordination in response to a Heatwave involves the bringing together of agencies and resources to ensure effective response to and recovery from Heatwave. This will include ensuring appropriate responses are being undertaken by responsible agencies such as health, infrastructure and transport.

During a heat event, the Department of Health has a key function to coordinate the health response state-wide. Following a heat health alert issued by the Chief Health Officer, local councils are responsible for activating their Municipal Heatwave Plans. The Moira Shire Council Municipal Emergency Resource Officer (MERO) or Municipal Recovery Manager (MRM) has authority to activate this Plan.

Each of our partners has an important role to play in the event of a declared heatwave, their responsibilities are summarised in the action plan.

## State Heat Plan – 2014

The State Heat Plan, prepared by Emergency Management Victoria (EMV), provides a consolidated overview of the Victorian arrangements for reducing the impact and consequences of heat events on the community, infrastructure and services. The State Heat Plan contains links to the Heat health plan for Victoria and other state department heat plans.

The State Heat Plan has been written for community, business, industry, emergency management agencies and state and local government and encourages all to prepare ahead to reduce the impact and consequences on the community, infrastructure and services.

## 2018 Heat health plan for Victoria

The 2018 Heat health plan for Victoria outlines a coordinated and integrated response to extreme heat in Victoria and sets out the actions and systems in place to support those most at risk during periods of extreme heat. It is built on the findings and recommendations from the evaluation of the 2009–10 heatwave framework, the Victorian Auditor-General's 2014 audit *Heatwave management: Reducing the risk to public health* and the *State Heat Plan 2014*, and the 2015-16 Heat health plan for Victoria. The actions outlined in this plan aim to protect the health of Victorians in extreme heat, specifically those most at risk of negative health impacts.

The *Heat health plan for Victoria* is primarily for health and community service providers and local and state government who engage with, provide services to, or advocate for those most at risk. However, individuals, community organisations and other agencies can benefit from the plan because everyone has a role to play in protecting those most at risk.

The State Heat Plan was prepared by the Department of Health and Human Services (DHHS) to provide a consolidated overview of the Victorian arrangements for reducing the impact and consequences of heat events on the community, infrastructure and services.

The plan has three main objectives:

- Protect the health of the Victorian community from heat-related harm.
- Communicate the actions of the department to prepare for and respond to extreme heat.
- Outline preparedness and response activities for local government and the health and human services sectors to reduce the impact of extreme heat on the Victorian community.

## Additional Documents

Consideration should also be given to acknowledging the following documents:

- The current *State Emergency Response Plan – Extreme Heat Sub-Plan 2ed (2017)*
- *State Extreme Heat Sub-plan (2017)*

These documents are available through EM-COP. Additionally, the Emergency Management Commissioner (EMC) has issued a *State Operational Arrangements – Extreme Heat* guide that details the state and regional arrangement for heat events, also available in EM-COP (Library tab, EM-COP Library > EM Arrangements > State Plans > Heat Documents).

## AGENCY ROLES

### **Emergency Management Commissioner**

The Emergency Management Commissioner (EMC) is the Control Agency for extreme heat events. 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.

### **Department of Health & Human Services**

The Department of Health & Human Services works with other State Government departments, local government and health and community service providers that provide information and services to at-risk groups and their carers before and during extreme heat to raise awareness about the health risks of extreme heat and promote heat health planning and response at the community level.

The Department issues a heat health alert when the forecast average temperature reaches or exceeds the heat health temperature threshold for a specific weather forecast district, as described in *Understanding Extreme Heat and Heatwave* section of this plan. The alert is provided through a subscription service which, although available to everyone, is particularly targeted to departmental program areas, health services, local government, agency partners and service providers.

The Department will also activate any relevant sub-agency plans. Additionally, the department will collect and report on all relevant data associated with the event. The Department of Health & Human Services is responsible for recovery coordination at the regional levels.

### **Municipal Council and Health and Community Service Providers**

Council and health and community service providers are encouraged to undertake their summer preparations including updating heat health plans and other relevant plans using the department's Heatwave plan review tool.

Some local actions may include ensuring appropriate staffing levels, considering staff and client safety in hot weather and ensuring staff are appropriately trained to explain the risks of extreme heat during client visits. This might also include updating individual heat health plans for clients, as well as preparing or updating a communication strategy and business continuity service plans.

Council and health and community service providers should continue monitoring local weather conditions and respond in accordance with their heat health and emergency management plans and operational protocols to ensure safe service provision and business continuity once an alert has been issued.

Council and other organisations may further promote consistent community heat health messages through local media or their standard communication channels. Service providers and health professionals may also give clients messages verbally or by distributing community information resources.

It is the responsibility of Local Government to coordinate local recovery if required.

## Emergency Management Commissioner

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

## VicEmergency

VicEmergency is the centralised website for Victorians to find emergency information and warnings. This assists in providing up to date, real time and consistent messaging. This website includes information including road closures, power outages as well as event information. This can be accessed through: <https://emergency.vic.gov.au>

## Water Supply – Goulburn Valley Water/North East Water

The Moira Shire local government area has two water-supply distributors, Goulburn Valley Water and North East Water. Goulburn Valley Water provides water supply to the majority of the Shire, with North East Water providing water supply to the major town of Yarrawonga and the smaller towns of Bundalong, St. James, and Tungamah in the east. In the event of a heatwave, both agencies have legislative requirements that are outlined in the State Heat Plan (2014) under section 6.4, with statements to that effect provided by both suppliers in Appendix 4 of this document:

### **EXTRACT: 6.4 Water**

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. On occasion, these events can lead to reduced pressures in some systems.

DEWLP (Department of Environment, Water, Land and Planning) 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 heat wave events including:

- Bringing forward or postponing any scheduled work.
- Increased 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.

DEWLP and water corporations hold emergency planning meetings prior to heat events to ensure all agencies have planned and coordinated for the event.

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### MUNICIPAL HEATWAVE STAKEHOLDERS AND PARTNERS

The Municipal Heatwave Plan sits alongside other Council plans and strategies. It is a sub-plan of the Municipal Emergency Management Plan, has links with the Wellbeing for All Ages Strategy 2017 to 2021, the Council Plan 2017-2021 and the Moira Shire Community Safety Strategy 2016-2019.

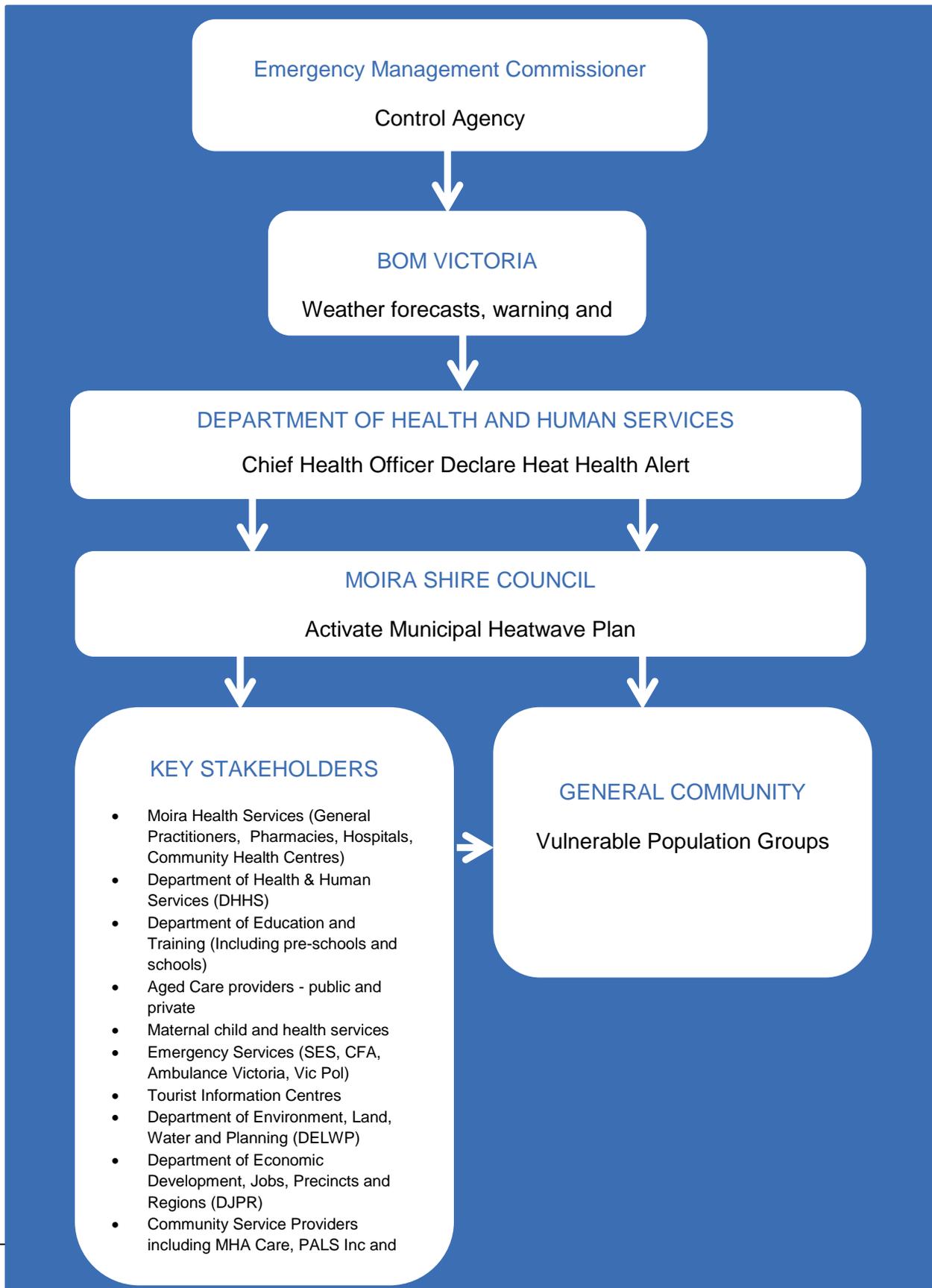
It also falls under the state-wide heatwave plan which details the different areas of response and action across government and the health and community sectors.

Council, through the Municipal Heatwave Plan, works alongside stakeholders and partners from within the Moira community. We have partnered with government, private sector, service provider and community group organisations that represent our vulnerable communities of the isolated, very young, elderly residents and visitors. These include:

- Moira Health Services (General Practitioners, Pharmacies, Hospitals, Community Health Centres)
- Department of Health & Human Services (DHHS)
- Department of Education and Training (Including pre-schools and schools)
- Aged Care providers - public and private
- Maternal child and health services
- Emergency Services (SES, CFA, Ambulance Victoria, Vic Pol)
- Tourist Information Centres
- Department of Environment, Land, Water and Planning (DELWP)
- North East Water
- Goulburn Valley Water
- Department of Jobs Precincts and Regions (DJPR)
- Community Service Providers including MHA Care, PALS Inc and Australian Red Cross
- Moira Seniors Network
- Moira ACE Network
- Moira Shire Council – Councillors and Staff
- Family Day Care providers
- Public Libraries (Goulburn Valley Libraries)
- Public pools (YMCA)

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Victorian Heat Health Alert Response/Coordination Flowchart



## SECTION 4: UNDERSTANDING EXTREME HEAT AND HEATWAVES

### Heat Event

The *State Heat Plan* uses the term 'heat event' for periods of high temperature, regardless of duration, as even one day of high temperature may result in impact and consequences on the community, infrastructure and services, with these effects compounding over successive days of high temperature.

### Extreme Heat

The *Heat health plan for Victoria* defines extreme heat as the minimum mean temperature that is likely to impact on the health of a community, known as the Department of Health & Human Services' heat health temperature threshold.

Extreme heat does not have a prescribed duration and may last as little as 24 hours.

Source: 2015-16 Heat Health Plan for Victoria

### Heatwave (low, severe, extreme)

Defining heatwaves is difficult; factors such as humidity, demographics, urban or rural design issues and acclimatisation mean that similar temperatures might have a different impact in different environments or communities.

As a result, there is no single temperature threshold for a heatwave in Australia.

In general, a heatwave is known as a period of abnormally and uncomfortably hot weather that could impact on human health, community infrastructure and services.

The Australian Bureau of Meteorology defines a heatwave as three or more days in a row when both daytime and night-time temperatures are unusually high in relation to the local long-term climate and the recent past.

When determining a heatwave, the bureau examines each part of the country and compares the forecast maximum and minimum temperatures for each three-day period in the coming week to the 'normal' temperatures expected for that location at that time of year, as well as to observed temperatures over a 30-day period.

When it comes to heatwaves there are three types:

#### Low-intensity heatwave

These are the most common, and most people are able to cope with the heat they are experiencing.

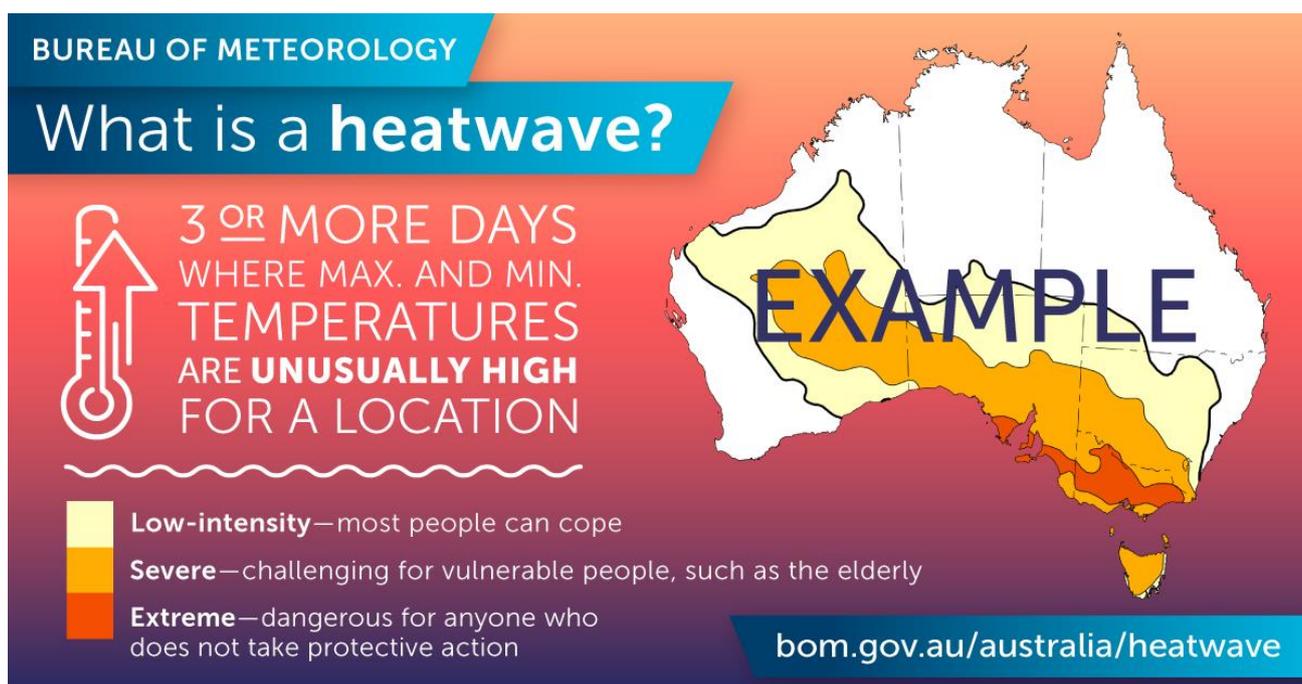
#### Severe heatwave

These are less frequent and are challenging for vulnerable people such as the elderly – particularly those with pre-existing medical conditions.

### Extreme heatwave

Extreme heatwaves are the rarest kind. They affect the reliability of infrastructure, like power and transport, and are dangerous for anyone who does not take precautions to keep cool – even those who are healthy. People who work or exercise outdoors are particularly at risk.

Source: Bureau of Meteorology Australia, 2019



**BUREAU OF METEOROLOGY**

## What is a heatwave?

3 OR MORE DAYS WHERE MAX. AND MIN. TEMPERATURES ARE **UNUSUALLY HIGH** FOR A LOCATION

**EXAMPLE**

- Low-intensity**—most people can cope
- Severe**—challenging for vulnerable people, such as the elderly
- Extreme**—dangerous for anyone who does not take protective action

[bom.gov.au/australia/heatwave](http://bom.gov.au/australia/heatwave)

More information on heatwaves can be found at [www.bom.gov.au/australia/heatwave/about.shtml](http://www.bom.gov.au/australia/heatwave/about.shtml)

### HEAT THRESHOLD

The Department of Health & Human Services has developed heat health temperature thresholds for Victoria.

In Victoria, heatwave plans are normally activated when temperatures are forecast that are likely to impact on the health of the community. These activation levels are also called ‘thresholds’. A heat health temperature threshold has been established for each of the nine Bureau of Meteorology weather forecast districts.

The Moira municipality is located in the Northern Country forecast district. The threshold for the Northern Country is when the average temperature is predicted to reach or exceed 32°C.

When the heat threshold of 32°C has been predicted or reached, this plan comes into effect.

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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).

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.

### Calculating the forecast 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.

#### Northern Country

##### Tuesday

Min: 20

Max: 40

##### Wednesday

Min: 27

Max: 38

#### Average calculation for Tuesday

$$(40 + 27) / 2 = 33.5 \text{ }^{\circ}\text{C}$$

The threshold for Northern Country = 32 °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.

## HEAT HEALTH ALERT SYSTEM

The department monitors the Bureau of Meteorology's seven-day forecast maximum and minimum temperatures. When the heat health temperature threshold is reached in a specific forecast district, a heat health alert is issued.

The Department of Health & Human Services has developed a Heat Health Alert System to notify:

- Local governments;
- Departmental program areas;
- Emergency services;
- Health and aged care sectors;
- State-wide or major metropolitan service providers; and
- Peak or advocacy groups.

Individuals can subscribe to heat health alerts via the department's website at this link:

<https://www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat/heat-health-alert-status>

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### HEAT RELATED ILLNESS

As the number of very hot days (above 35°C) increases and heatwaves become more frequent, more people may suffer heat-related illnesses and death, with the elderly particularly vulnerable. An estimated 289 people aged 65 and over die annually in Melbourne from heat-related deaths (1997-1999 average).

Heat-related illnesses such as heat cramps, heat exhaustion and heat stroke may occur in hot weather, other conditions are seen to occur far more commonly.

These include:

- exacerbation of medical conditions including heart (cardiac) and kidney (renal) disease;
- confusion, muscle weakness, unsteadiness and falls due to dehydration;
- exacerbation of asthma and other respiratory illness; and
- gastroenteritis, mostly due to poor food handling.

More information about heat-related illness can be found on the Better Health Channel at [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au) and in the Department of Health & Human Services' communication resources, which can be downloaded from the Environmental Health website at [www.health.vic.gov.au/environment/heatwaves](http://www.health.vic.gov.au/environment/heatwaves)

Source: Heat health plan for Victoria 2015

### WHO IS MOST AT RISK?

Heatwaves are known to increase the incidence of illness and death, particularly among vulnerable population groups. Vulnerable population groups include people with the following characteristics:

- People over 65 years old, especially those living alone
- People who have a medical condition, illness, infection and/or taking certain medications that may affect the way the body reacts to heat
- People with problematic alcohol or other drug use such as amphetamines
- People with a disability
- People who are overweight or obese
- Pregnant women, breastfeeding mothers, babies and young children under four
- People who work or are physically active outdoors (such as gardeners and labourers)
- Homeless people and people of low socioeconomic status
- People who live alone or who are socially isolated

## SECTION 5: HEAT HEALTH ACTIONS

### Municipal Heatwave Plan - Action Plan

The Municipal Heatwave Action Plan is not just about responding to a pending heatwave; instead, it provides guidance all-year-round as we prepare our community in advance for very hot summers. Our actions (As detailed in Appendix 2) can be divided into four stages,

Stage One Before Summer

Stage Two Immediately Before Forecast Extreme Heat

Stage Three During Extreme Heat

Stage Four After Extreme Heat

### Heatwave Action Plan – Recommended Actions

Stage One – Before Summer	
Actions - Council	
	Review and update heatwave plans and any other relevant heat plans, including business continuity plans and contact databases (e.g. key stakeholders)
	Through the relevant council officer, engage with and provide heat health information to key stakeholders and community organisations to raise awareness about the risks of extreme heat.
	Engage with clients of Councils Maternal Child Health service providers to raise awareness about the risks of extreme heat.
	Identify established and informal networks to connect and engage with Aboriginal and culturally and linguistically diverse communities.
	Update the heat health communication strategy.
	Order and put on public display, the department’s heat health brochure in Council venues such as service centres, early childhood centres, public libraries, senior citizens venues.
	Talk with clients, family and carers about subscribing to receive heat health alerts from <a href="http://www.health.vic.gov.au/environment/heatwaves-alert">www.health.vic.gov.au/environment/heatwaves-alert</a>
	Plan for power outages, for example, what to do with vaccine fridges.
Actions – health and community service providers	
	Review and update heatwave plans and any other relevant heat plans, including business continuity plans
	Engage with key stakeholders and community members to raise awareness about the risks of extreme heat.

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Update the heat health communication strategy.
Ensure appropriate staffing levels and consider staff and client safety in hot weather.
Update individual heat health plans for clients and vulnerable-client lists.
Order and display the department's heat health brochure within the workplace
Talk with clients, family and carers about subscribing to receive heat health alerts from <a href="http://www.health.vic.gov.au/environment/heatwaves-alert">www.health.vic.gov.au/environment/heatwaves-alert</a>
<b>Actions - clinicians</b>
Develop or review a heat health plan or strategy for the practice and staff.
Ensure staff are appropriately trained to identify patients who may need assistance.
Identify at-risk patients in your practice and begin talking about how they will cope during the heat.
Advise at-risk patients on adjustments to medications and fluid intake recommendations during extreme heat periods.
Plan for power outages, for example, what to do with vaccine fridges.
Download or order the department's Factsheet for clinicians from <a href="http://www.health.vic.gov.au/environment/heatwavescommunity-resources">www.health.vic.gov.au/environment/heatwavescommunity-resources</a>
Subscribe to the department's heat health alert system at <a href="http://www.health.vic.gov.au/environment/heatwaves-alert">www.health.vic.gov.au/environment/heatwaves-alert</a>
<b>Actions – health services</b>
Develop or review a heat health plan including business continuity that addresses the needs of staff, patients and carers.
Identify at-risk patients and begin talking about what will be required for them on extreme heat days.
Check your contingency planning for air conditioning and power supply.
Download or order the department's Factsheet for clinicians from <a href="http://www.health.vic.gov.au/environment/heatwavescommunity-resources">www.health.vic.gov.au/environment/heatwavescommunity-resources</a> and distribute it.
Talk with clients, family and carers about subscribing to receive heat health alerts from <a href="http://www.health.vic.gov.au/environment/heatwaves-alert">www.health.vic.gov.au/environment/heatwaves-alert</a>
<b>Actions - individuals</b>
Speak with a doctor about how to best cope during extreme heat periods.
Plan how to stay cool during the heat.
If you are unable to keep cool at home, identify other places that provide cooling such as a neighbour's or family member's home, public library, shopping centre or movie theatre.
Get a copy of the department's heat health brochure for tips for coping during extreme heat from your general practitioner.
Subscribe to <a href="https://www.betterhealth.vic.gov.au/">https://www.betterhealth.vic.gov.au/</a> for heat health information.
Check that your fan or air-conditioner works well.
Stock up on food, water and medicines.
Plan how to cope if the electricity goes out or public transport is disrupted.
Talk with family or friends you think will need extra support and assistance during extreme heat to discuss how to help them keep cool during extreme heat.
If you are at risk of heat-related illness, talk with your family and friends about how they can help you survive the heat.

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<b>Stage Two – Immediately Before Forecast Extreme Heat</b>
<b>Actions - Council</b>
Take action in accordance with heat health plans or other plans containing heat-related actions such as service continuity plans, emergency management plans and occupational health and safety plans.
Monitor local weather conditions on the Bureau of Meteorology’s website.
Provide community messaging consistent with the Department through local media or other communication channels.
Update the council website with consistent heat health information.
Contact Community Houses to ensure they are aware of the forecast extreme heat event.
Ensure appropriate staffing levels and consider staff and client safety in hot weather.
Ensure staff engaging with the public are aware of what the council is doing to support and protect those at risk such as where people can go to stay cool.
Promote and redistribute, if required, the department’s brochure in Council venues such as service centres, early childhood centres, public libraries, senior citizens venues.
<b>Actions – health and community service providers</b>
Take action in accordance with heat health plans or other plans containing heat-related actions such as service continuity plans, emergency management plans and occupational health and safety plans.
Monitor local weather conditions on the Bureau of Meteorology’s website.
Provide consistent heat health messages during client visits or telephone calls.
Restock the department’s brochure in the lobby and distribute to clients
Engage with key stakeholders and community members on the required adjustments needed due to the risks of extreme heat.
Promote community messaging about animal health in extreme weather.
<b>Actions - clinicians</b>
Monitor local weather conditions on the Bureau of Meteorology’s website.
Hand out the department’s heat health brochure to patients and carers.
Keep the waiting room cool, and provide water.
Identify and advise at-risk patients on required adjustments and recommendations during extreme heat periods.
<b>Actions – health services</b>
Take action in accordance with any relevant heat plans.
Monitor local weather conditions on the Bureau of Meteorology’s website.
Make the department’s heat health brochure available to patients and carers.
Keep waiting and outpatient rooms cool, and provide water.
Identify and advise at-risk patients on required adjustments and recommendations during extreme heat periods.
<b>Actions - individuals</b>
Monitor local weather conditions on the Bureau of Meteorology’s website.
Consider rescheduling non-essential appointments to a cooler part of the day.
Locate a torch, fully charged mobile phone or a landline phone, a battery-operated radio and sufficient batteries in case of power failure.
Listen for bushfire messages if you live in a bushfire-risk area.
If pet/animal owner, put in measures to ensure a duty of care is met

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<b>Stage Three – During Extreme Heat</b>
<b>Actions - Council</b>
Undertake council activities in the municipal emergency management plan if required.
Reschedule any non-essential events, meetings and services to another day or in the cooler part of the day.
Increase community messaging through local media and standard communication channels.
<b>Actions – health and community service providers</b>
Reschedule any non-essential events, meetings and services to another day or in the cooler part of the day.
Increase consistent community messaging through local media and standard communication channels.
Monitor temperatures in client areas.
Ensure adequate drinking water is available for clients, visitors and staff.
<b>Actions - clinicians</b>
Plan for increased demand from patients with heat-related illness or exacerbated medical conditions.
Call patients who do not show up for appointments to ensure they are OK.
Talk with patients about how they are coping during the heat.
<b>Actions – health services</b>
Plan for increased demand from patients with heat related illness or exacerbated medical conditions. This may include a significant increase in ambulance transfers, admissions to the emergency department, short-stay unit and wards.
Plan for a potential increase in arrival of deceased individuals
Liaise where necessary with the State Health and Medical Commander.
<b>Actions - individuals</b>
Listen for bushfire messages if you live in a bushfire-risk area.
Check on family and friends who you think need extra support and assistance during extreme heat
Watch and listen for news reports about the extreme heat and for heat health messages
Check the VicEmergency website for heat health alerts and community heat health messages.
Keep in touch with friends, neighbours and relatives.
Drink plenty of water.
Spend as much time as possible in cool or air conditioned buildings.
Never leave children, adults or animals in parked cars.
Stay out of the sun during the hottest part of the day.
If outside, stay in the shade and drink plenty of water.
Limit outdoor activities that can be rescheduled for a cooler day, such as gardening or building renovations.
Wear a hat and light-coloured, loose-fitting clothing when outside.
Reschedule any non-essential appointments to another day.
Seek medical assistance if you feel unwell.

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<b>Stage Four – After Extreme Heat</b>
<b>Actions - Council</b>
Talk with community groups and clients about how they are recovering from the heat.
Consider what worked well and what could be improved in preparation for further heat.
Consider local recovery activities if required.
Update plans and activities as required.
<b>Actions – health and community service providers</b>
Talk with clients about how they are recovering from the heat.
Consider what worked well and what could be improved in preparation for further heat.
Update plans and activities as required.
<b>Actions - clinicians</b>
Talk with at risk patients and their carers about their recovery from extreme heat.
Consider what worked well and what could be improved in preparation for further heat
Update plans and activities as required.
<b>Actions – health services</b>
Consider what worked well and what could be improved in preparation for further heat
Consider a formal debrief of the response in order to revise and improve the hospital's heat health plan.
Update plans and activities as required.
<b>Actions - individuals</b>
Restock food, water and medicines for the next event.
Consider what worked well and what could be improved in preparation for further heat.
Take care of others.

## Appendix 1

### Communication Resources and Activity

The Heat Health Plan for Victoria is supported by a communication strategy that outlines how the Department of Health & Human Services will improve understanding of extreme heat conditions, the risks posed to human health and the steps individuals, communities and organisations can take to minimise these risks.

The strategy contains a state-wide departmental advertising campaign consisting of radio ads, social media, community service announcements, media stories and stakeholder advocacy. During a heatwave, emergency print and radio ads, along with media engagement, will be used to alert Victorians to the developing emergency situation.

Alerts can also be found on [www.emergency.vic.gov.au](http://www.emergency.vic.gov.au).

Prior to summer, resources such as social media posts, newsletter and newspaper article copy, sample media releases and printed posters and brochures are circulated to councils, healthcare providers and seniors' organisations to assist them in promoting consistent heat health messages. A range of public health messages may be communicated that provide recommendations on preparatory and preventive actions people can take to further reduce risks presented by extreme heat conditions, and in the event of a power failure.

#### Communication Resources

Heat health information is available for and promoted to all Victorians. It is targeted directly at people most vulnerable to heat-related health impacts and individuals and organisations with a direct responsibility to care for these people. Others such as pharmacists and general practitioners, who have a broader healthcare relationship with many Victorians most at risk during extreme heat, are also targeted.

The Department of Health & Human Services provides health and community service providers and some community organisations with printed resources on how to survive the heat for dissemination and discussion with clients. The printed resources are available to everyone at no cost or can be downloaded from

[www2.health.vic.gov.au/publichealth/environmental-health/climate-weather-and-publichealth/heatwaves-and-extreme-heat](http://www2.health.vic.gov.au/publichealth/environmental-health/climate-weather-and-publichealth/heatwaves-and-extreme-heat)

These include;

- Posters and brochures (in multiple languages)
- Factsheets for clinicians
- *Supporting people by telephone* ready reckoner provided to organisations that support those most at risk via telephone during extreme heat
- Heat related factsheets
- Media kits for municipal councils and other organisations to use in promoting consistent heat health messages
- Sample social media tiles and posts for use in promoting consistent heat health messages

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### Communication Channels

The Department of Health & Human Services has a range of established communication channels that may be used as mechanisms to communicate with people who are at risk of heat-related illness, their loved ones and carers. Many of these channels are operated by health and community service providers such as general practitioners, pharmacies and Home and Community Care (HACC) providers. In addition, the department uses;

- Websites;
- the NURSE-ON-CALL telehealth service;
- Personal Alert Victoria;
- radio ads;
- social media;
- outdoor advertising;
- community service announcements; and
- media stories

to distribute information and alerts and to promote key messages.

Individuals and organisations can readily access heat health information to assist in planning and preparing for extreme heat, as well as during periods of extreme heat, from;

- the Better Health Channel:  
<https://www.betterhealth.vic.gov.au/>
- the Department's Environmental Health websites:  
<https://www2.health.vic.gov.au/public-health/environmental-health/climate-weather-and-public-health/heatwaves-and-extreme-heat>
- Specific heat health information for older Victorians, their relatives, friends or carers can be found on Seniors Online at:  
[www.seniorsonline.vic.gov.au](http://www.seniorsonline.vic.gov.au);
- or in the Seniors Card e-newsletter.

When the heat health temperature threshold is reached or exceeded, smartphone users can receive hot-weather notifications with key heat health messages via the Better Health Channel app (downloadable from [www.vic.gov.au/social-media/mobile-apps/better-health-channel-healthinformation-and-services.html](http://www.vic.gov.au/social-media/mobile-apps/better-health-channel-healthinformation-and-services.html)). Community information and heat health alerts will also be available through the VicEmergency platform, which is managed by Emergency Management Victoria.

## Appendix 2

### **Air Conditioned Public Places**

A few hours in a cooler environment during extremely hot weather lowers the core body temperature and helps saves lives.

Across Moira Shire, there are very few public places that are regularly open, whether in small towns or larger centres, that are air-conditioned and that could accommodate numbers of people seeking cool refuge.

With this in mind, if you do not have air conditioning, your planning should consider whether a friend, family member or neighbour could be the best option to seek relief during high heat periods.

Other cool places to be considered include local hotels and clubs including those in NSW. Local libraries and swimming pools are also options but their operating hours do vary. The most up to date details of these can be found on Moira Shire Council's website through the links below:

[http://www.moiravic.gov.au/Community\\_Health/Sports\\_Leisure\\_Services/Aquatic\\_Facilities](http://www.moiravic.gov.au/Community_Health/Sports_Leisure_Services/Aquatic_Facilities)

[http://www.moiravic.gov.au/Community\\_Health/Education\\_Training/Libraries](http://www.moiravic.gov.au/Community_Health/Education_Training/Libraries)

All outdoor pools will open on the 1 December and will remain open until the day following the Labour Day Holiday in March, as a minimum. The swimming season may be extended at the discretion of the Contractor. All Toddlers Pools are sheltered by shade cloth.

On days forecast over 38 degrees, the outdoor pools will remain open until 8pm if there are 10 or more people on site at 7pm. On days forecast under 25 degrees, the outdoor pools will remain closed.

## Appendix 3

### Power Outage Risk

Extreme heat sometimes causes blackouts. Outages can happen because high demand puts pressure on infrastructure, causing faults like blown fuses or transformer failures.

Distributors (the companies that own and manage the poles and wires) may deliberately disconnect some customers for a short time to relieve pressure on the system and prevent bigger outages. This is known as 'load shedding.' Load shedding most recently occurred in the Moira Shire during the January 2019 heatwave event, leaving Yarrawonga and Bundalong without power.

Distributors have an obligation to keep customers informed when there is an outage and PowerCor will usually advise residents via text or email if such an action is scheduled to take place. Residents should be encouraged to register their phone number and email address with their power company to enable SMS and email alerts.

Your distributor should be able to tell you what's caused an outage and when power is expected to be restored. Distributors share this information and maintain a 24-hour faults telephone hotline, which is listed on residents' electricity bills.

Where such an event is a possibility, the Energy and Water Ombudsman recommends the following:

- Residents should call their power company or check its website and social media for up-to-date information.
- Residents should switch off and unplug sensitive electronic equipment like computers, but leave a light on so they know when power has been restored.
- Keep the refrigerator door closed and avoid opening it unless absolutely necessary.
- Check on any neighbours or relatives with special needs, such as the elderly, people with a disability, or people with a medical condition.

Source: The Energy and Water Ombudsman, [www.ewov.com.au](http://www.ewov.com.au)

If an extreme heatwave event effects power infrastructure and causes unexpected blackouts, some residents may need additional supports. The Department of Health and Human Services has the *Vulnerable People in Emergencies Policy* that covers the key activities agencies must undertake for the vulnerable residents of our Shire. Refer to Moira Shire's Municipal Emergency Management PLAN 5.4 (D16 68715).

## Appendix 4

### Water Supply – North East Water and Goulburn Valley Water

#### North East Water

Heat events can cause an increase in the demand for water services, particularly drinking water. Concurrent risks can occur to distribution and treatment when power supply is also lost.

Water supply to the community is provided by a regulated reticulated system. North East Water on behalf of DELWP will ensure appropriate preparation and response arrangements are in place for supply of safe drinking water, which includes:

- maximizing storage of drinking water
- rescheduling planned works to protect integrity of the reticulated system
- monitoring performance of water systems
- implementing timely repairs or controls for damaged or broken water supply infrastructure
- implementing business continuity arrangements for loss of power supply events, and
- providing the Regional Control Team (RCT) consequence information for any loss of supply or loss of services to vulnerable or critical community services.

#### Goulburn Valley Water

To be provided (awaiting their response)