

Eastern Metropolitan Councils

LOCAL GOVERNMENT EXTREME HEAT PLAN

Version 2.0 | February 2018

Eastern Metropolitan Councils' Emergency Management Partnership



emergency management without borders...

Regional Amendments Record

For a record of document amendments, refer to the EMCEMP Regional Documents Amendment Record found on the Emergency Management Victoria / Fire and Emergency Management Planning portal (Eastern Metropolitan Region / EMR MEMEG Collaboration Groups).

Acronyms

AV	Ambulance Victoria
BCP	Business Continuity Plan
BoM	Bureau of Meteorology
DHHS	Department of Health and Human Services
EMCEMP	Eastern Metropolitan Councils Emergency Management Partnership
EMMV	Emergency Management Manual Victoria
EMR	Eastern Metropolitan Region
EMV	Emergency Management Victoria
HHAS	Health Health Alert System
MEMPC	Municipal Emergency Management Planning Committee
MEMP	Municipal Emergency Management Plan
MERC	Municipal Emergency Response Coordinator
MRM	Municipal Recovery Manager
MRRP	Municipal Relief and Recovery Plan
OHS	Occupational Health and Safety
SERP	State Emergency Response Plan
VicPol	Victoria Police

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1. Introduction

Extreme heat or heatwave is a period of unusual and uncomfortable hot weather that could negatively affect human health. Extreme heat can also affect community infrastructure (such as power supply and public transport) and other services. Extreme heat can affect everyone, however some people are more vulnerable.

The Eastern Metropolitan Region (EMR) Local Government Extreme Heat Plan is developed to coordinate an integrated, consistent response to extreme heat events across the Eastern Metropolitan Region. The plan is a sub plan of Boroondara, Knox, Manningham, Maroondah, Monash, Whitehorse and Yarra Ranges individual Municipal Emergency Management Plans (MEMPs).

This plan is produced collaboratively with the Eastern Metropolitan Councils' Emergency Management Partnership (EMCEMP), the EMR Environmental Health Team Leaders Group, the Department of Health and Human Services (DHHS), Victoria Police (VicPol), Ambulance Victoria (AV) and supporting agencies. The plan enables consistent messaging, greater collaboration and the ability to innovate across the EMR Councils. The collective commitment to communication, planning, response and recovery in extreme heat events will create positive health and wellbeing outcomes for EMR communities.

The EMR Local Government Extreme Heat Plan describes the impacts and consequences of heat events, including Heatwaves. It has been established that there is no minimum number of days for an extreme heat event. It can be declared for a period as short as a single day. However, the Bureau of Meteorology (BoM) defines a heatwave as a three or more day hot period of abnormal and uncomfortable hot weather for a given location(s).

1.1. The Regional Profile

The EMR is comprised of seven municipalities: Boroondara, Knox, Manningham, Maroondah, Monash, Whitehorse and Yarra Ranges.

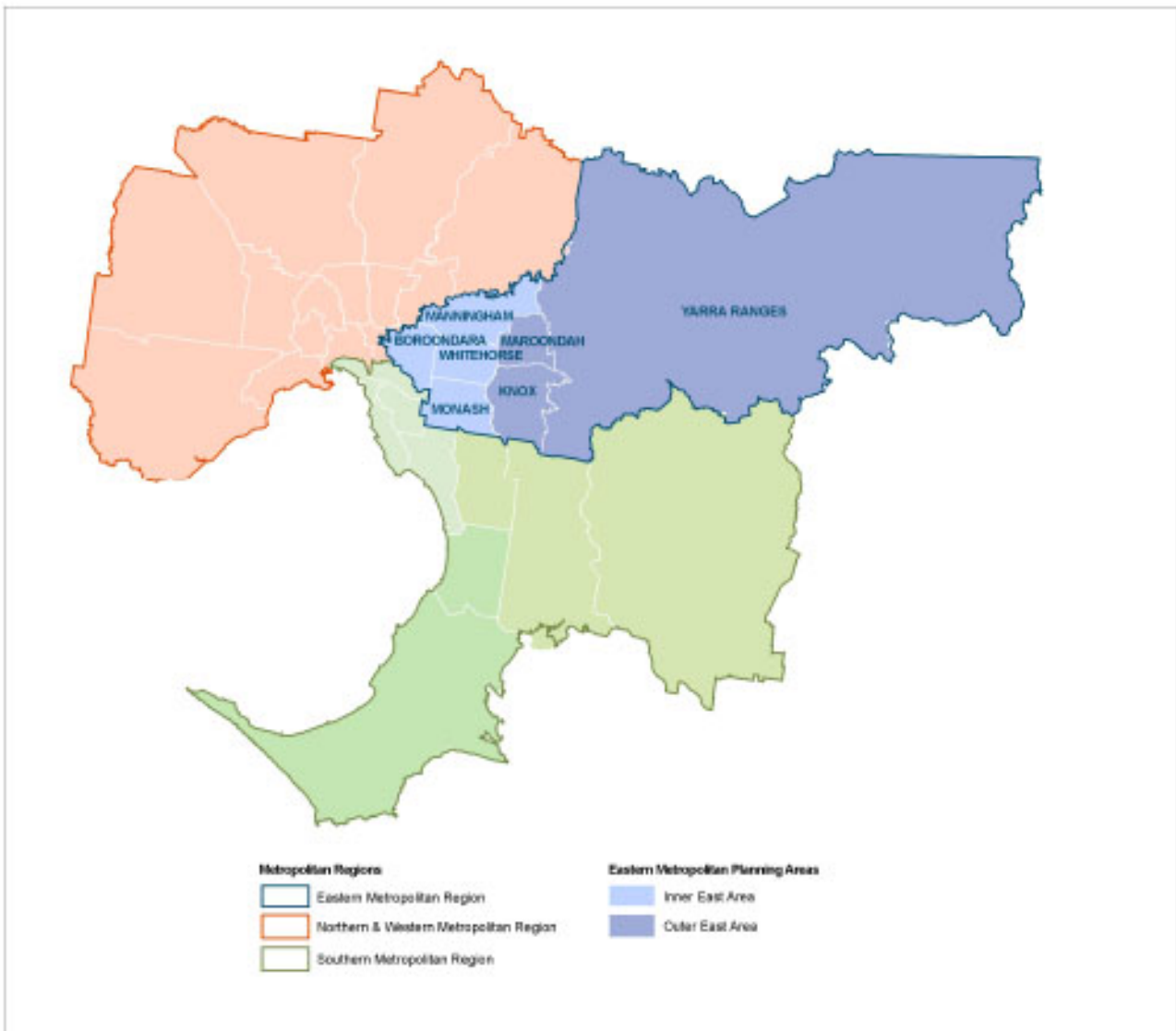


Figure 1: Map of the Eastern Metropolitan Region

Diverse communities found within the region include inner-city suburbs such as Kew and Hawthorn, large outer metropolitan suburbs such as Ringwood and Boronia, and semi-rural townships such as Healesville, Yarra Glen, Warburton and Yarra Junction. Refer to Table 1 for more detail.

For further specific municipal demographics, see the links to individual Council's Municipal Emergency Management Plan (MEMPs) listed in Appendix 2 or the Eastern Metropolitan Region Relief and Recovery Plan (DHHS). Information is also available on-line at <https://profile.id.com.au/>

Table 1: Eastern Metropolitan Region Demographic Summary (2016 Census)

LGA/Region	Boroondara	Knox	Manningham	Maroondah	Monash	Whitehorse	Yarra Ranges	TOTAL	Victoria	% of Victoria
Total Population	167,231	160,665	122,902	114,979	192,850	162,078	155,312	1,076,017	6,244,227	17.2%
At-Risk Age Groups										
LGA/Region	Boroondara	Knox	Manningham	Maroondah	Monash	Whitehorse	Yarra Ranges	TOTAL	Victoria	% of Victoria
Persons Younger than 14 Years	28,806	27,063	18,727	20,600	28,894	27,241	28,454	179,785	1,140,283	15.8%
% Persons Younger than 14 Years	17.2%	16.8%	15.2%	17.9%	15.0%	16.8%	18.3%	16.7%	18.3%	N/A
Persons Older than 65 Years	26,809	23,890	24,704	17,702	31,380	28,293	23,338	176,116	929,214	19.0%
% Persons Older than 65 Years	16.0%	14.9%	20.1%	15.4%	16.3%	17.5%	15.0%	16.4%	14.9%	N/A
Non-English Speaking Country of Origin										
LGA/Region	Boroondara	Knox	Manningham	Maroondah	Monash	Whitehorse	Yarra Ranges	TOTAL	Victoria	% of Victoria
Born in non-English Speaking Country	40,149	35,525	40,251	17,304	80,820	53,576	11,357	278,982	1,367,485	20.4%
% Born in non-English Speaking Country	24.0%	22.1%	32.8%	15.0%	41.9%	33.1%	7.3%	25.9%	21.9%	N/A
People Speaking Languages Other than English at Home										
LGA/Region	Boroondara	Knox	Manningham	Maroondah	Monash	Whitehorse	Yarra Ranges	TOTAL	Victoria	% of Victoria
Total Non-English Spoken at Home	45,568	38,835	49,402	18,744	91,537	35,393	10,690	290,169	1,623,499	4.6%
% Total Non-English Spoken at Home	27.2%	24.2%	40.2%	16.3%	47.5%	21.8%	6.9%	27.0%	26.0%	N/A

More than 1000 People Speaking Languages Other than English at Home

LGA/Region	Boroondara	Knox	Manningham	Maroondah	Monash	Whitehorse	Yarra Ranges	TOTAL	Victoria	% of Victoria
Mandarin	13,700	8,072	12,469	3,601	26,821	20,966		85,629	199,815	42.9%
Cantonese	4,945	4,781	9,398	1,398	8,708	8,573		37,803	81,175	46.6%
Greek	4,760	1,797	7,050		10,325	4,125		28,057	118,640	23.6%
Italian	2,777	1,799	4,888		3,844	2,233	1,374	16,915	118,640	14.3%
Vietnamese	2,054	1,188			2,977	2,068		8,287	106,152	7.8%
Sinhalese		2,078			4,645	1,406		8,129	37,465	21.7%
Hindi	1,398	1,348			3,109	1,783		7,638	56,198	13.6%
Arabic		1,130	1,805		1,320			4,255	81,175	5.2%
Tamil		1,104			2,670			3,774	24,977	15.1%
Korean					2,362	1,232		3,594	18,733	19.2%
Persian/Dari			2,207			1,131		3,338	37,465	8.9%
Indonesian					1,750			1,750	18,733	9.3%
Punjabi					1,543			1,543	56,198	2.7%
Chin Haka				1,158				1,158	6,244	18.5%
German		1,109						1,109	18,733	5.9%
Filipino		1,075						1,075	43,710	2.5%
French	1,031							1,031	18,733	5.5%

Aboriginal and Torres Strait Islander Heritage

LGA/Region	Boroondara	Knox	Manningham	Maroondah	Monash	Whitehorse	Yarra Ranges	TOTAL	Victoria	% of Victoria
Aboriginal and Torres Strait Islander	61	92	42	100	78	71	177	621	47,788	1.3%

SEIFA Index

LGA/Region	Boroondara	Knox	Manningham	Maroondah	Monash	Whitehorse	Yarra Ranges	TOTAL	Victoria	% of Victoria
SEIFA Index	1,098	1,049	1,071	1,044	1,045	1,051	1,037	N/A	959	N/A
SEIFA Rank (Maximum 80)	80	65	76	64	71	72	61	N/A	N/A	N/A
SEIFA Decile Rank (Maximum 10)	10	9	10	9	10	10	9	N/A	N/A	N/A
Need for Assistance										
LGA/Region	Boroondara	Knox	Manningham	Maroondah	Monash	Whitehorse	Yarra Ranges	TOTAL	Victoria	% of Victoria
Need for Assistance	6,355	6,199	6,145	4,692	9,257	6,461	7,144	46,253	318,456	14.5%
% Need for Assistance	3.8%	3.9%	5.0%	4.1%	4.8%	4.0%	4.6%	4.3%	5.1%	N/A

2. Objectives

The EMR Local Government Extreme Heat Plan outlines EMR Councils coordinated response to the impacts and consequences of extreme heat events (including heatwaves) on the community, infrastructure, environment and services.

This EMR Local Government Extreme Heat Plan aims to enhance and coordinate:

Before - (Preparedness)

Arrangements in place providing information and advice to key stakeholders to assist them to reduce the negative impact of an extreme heat event.

During – (Response)

Outline actions and response arrangements to an extreme heat event.

After – (Community support and recovery)

Ensure there is a comprehensive approach to emergency recovery planning in the seven municipalities' municipal emergency management plans, with specific focus on the issues associated with extreme heat events. In particular, focus on the priority tasks recommended in each of the Municipal Recovery Management Plans.

Communication

Develop media and communication messages set out in Appendix 4 - EMR Extreme Heat Plan in line with whole-of-government extreme heat messages to inform the community and staff about issues relating to an extreme heat event.

Consistency

Ensure the plan complements the planning framework of each respective municipality and extreme heat action plan as well as the Victorian Interim State Emergency Response Plan (SERP) Extreme Heat Sub Plan

(<https://www.emv.vic.gov.au/responsibilities/state-emergency-plans/state-extreme-heat-sub-plan>) and the [Heat Health Plan for Victoria \(2015\)](#).

3. Scope

This plan seeks to support the health and wellbeing of at-risk residents of the EMR:

- Defines extreme heat events and the effect an extreme heat event has on people (particularly the young, elderly, infirmed and people working or strenuously exercising in hot conditions), infrastructure, agriculture, animals and the natural environment.
- Provides advice on how to reduce the negative effects of extreme heat.
- Outlines the generic Eastern Region Local Government action and communication plans for preparing for, responding to and recovering from extreme heat events.
- Describes the collaboration phases that mirror the state and national plans around extreme heat planning and the responses for an extreme heat event.
- References publications and web sites where the plan reader may obtain more detailed information and advice.

This Plan is not designed to be a guide for the health and wellbeing of Council staff and volunteers during extreme heat conditions as these are covered under the Business Continuity and Occupational Health and Safety (OH&S) policies and procedures of each stakeholder organisation. However, this plan should complement and be read in conjunction with the relevant Business Continuity, OH&S policies and procedures and Community Wellbeing Plan for each stakeholder organisation.

4. Audience

The audience for this plan includes the Municipal Councils in the EMR, (Boroondara, Knox, Manningham, Maroondah, Monash, Whitehorse and Yarra Ranges) local agencies, businesses and community groups that play a significant role in the management of an emergency.

Although the community aren't directly involved with the activation of this plan, the community may find this plan informative in that it will enable them to better prepare for an extreme heat event.

5. Activation of the Plan

In an extreme heat event, EMV are the control agency. Extreme heat events may impact on infrastructure, such as electricity generation and distribution or transport failure as well as human health impacts. EMV will play a key role in ensuring appropriate responses are being undertaken by responsible agencies, such as for health, infrastructure and transport.

Depending on the nature and extent of the extreme heat event, Municipal Emergency Management Plans (MEMP) and individual Municipal Extreme Heat action plans may be activated.

If it becomes apparent that an emergency will exceed the capacity of a municipal Council to perform emergency relief or recovery functions, the municipal Council may request the relevant Regional Recovery Coordinator (DHHS) to coordinate emergency relief or recovery at the regional level. This does not replace the requirement for the Regional Recovery Coordinator (DHHS) to monitor the emergency relief and recovery situation and activate the Regional Emergency Relief and Recovery Plan.

Further escalation to the state level of management may be necessary in respect of certain service needs in very large or complex events. The Australian Government may also provide Commonwealth resources to deliver particular services.

6. Authorising Environment

Under the Emergency Management Act 2013, Heatwave (Extreme Heat Event) is a Class 2 emergency with Emergency Management Victoria (EMV) being the nominated control agency.

The Victorian Government has a legislative framework relevant to extreme heat events that informs the development and implementation of this plan. These include:

- **Public Health and Wellbeing Act (Vic) 2008** - which strengthens local government's role through the municipal public health planning process.
- **Emergency Management Act (Vic) 1986**
- **Emergency Management Act (Vic) 2013**
- **Climate Change Act (Vic) 2010**

- [Planning and Environment Act \(Vic\) 1987](#) - which fosters better planning of the built environment to withstand the impact of a range of likely emergencies, including extreme heat events.
- [Local Government Act \(Vic\) 1989](#) - which outlines the responsibility of local government to protect public health emergencies.
- [Emergency Management Manual Victoria \(EMMV\)](#)

7. Linkages

This plan reflects relevant legislation and the activation of individual municipal Council's MEMP during an extreme heat emergency.

Based on Appendices 3 and 4 respectively, each of the individual Councils may include an operations and communication plan for their individual responses to an extreme heat emergency.

This plan is consistent with:

- [State Extreme Heat Sub-Plan](#)
- [Victorian State Health Emergency Response Plan](#)
- [State Emergency Response Plan \(SERP\) – EMMV Part 3](#)
- [Victorian Emergency Management Manual](#)
- [Victoria's Climate Change Adaption Plan 2017 - 2020](#)
- [EMR Relief and Recovery Plan](#)

8. Exercising and Evaluation

Exercising this plan may be performed in conjunction with other emergency management or business continuity exercises. Records will be kept by the testing and participating municipalities.

9. Review

9.1. Responsibility

This plan is a sub-plan of each municipality MEMP and is maintained jointly through the EMCEMP Document Management Working Group and EMR Environmental Health Team Leaders Group and other relevant stakeholders. The plan will be tabled for consideration and feedback with each of the Municipal Emergency Management Planning Committees (MEMPC) prior to EMCEMP endorsement.

It is the responsibility of each municipality to update their own operational and communications plans, should they choose to have them, using Appendix 3 and 4 as guides.

9.2. Review

This plan will be reviewed to ensure that the plan functions adequately and promotes a continuous improvement approach to planning:

- Every three years
- Following any changes to the Victorian State planning

- Following an extreme heat event; or
- Following plan exercises

9.3. Debriefing and Evaluation

Evaluation of activities and programs following emergency events is essential to maximise lessons learned and identify where improvements can be made. Evaluation must identify the strengths and weaknesses of the operational response to the needs of the community.

While activities are being undertaken, agencies and organisations responsible for delivering extreme heat services will:

- Monitor the delivery and effectiveness of emergency operations through regular reporting; and
- Adjust the management and delivery of activities as necessary to achieve better outcomes.

The outcomes will be reported and shared between all relevant agencies and the community including the EMV Lessons Learnt Program. Significant issues that have relevance to the MEMP and its sub-plans will be communicated to the MEMPC.

10. What is an Extreme Heat Event

The Victorian DHHS has set an extreme heat/heat health threshold temperature to be the average temperature of 30°C for EMR (part of the Victorian Central Region) which is the mean of the day’s maximum and minimum overnight temperatures (the minimum temperature for the following day). An example of this calculation is demonstrated below:

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

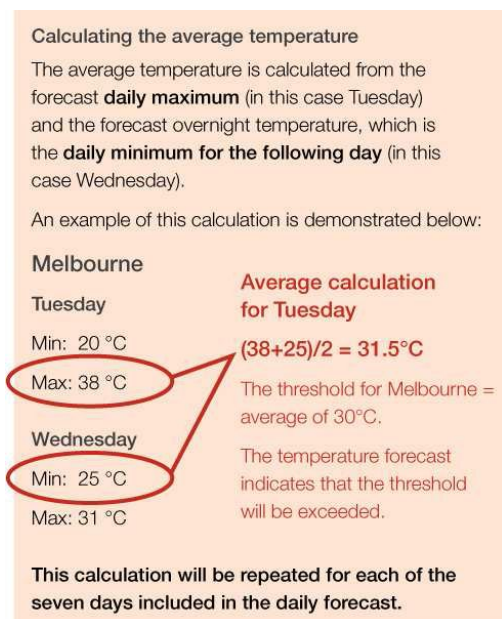
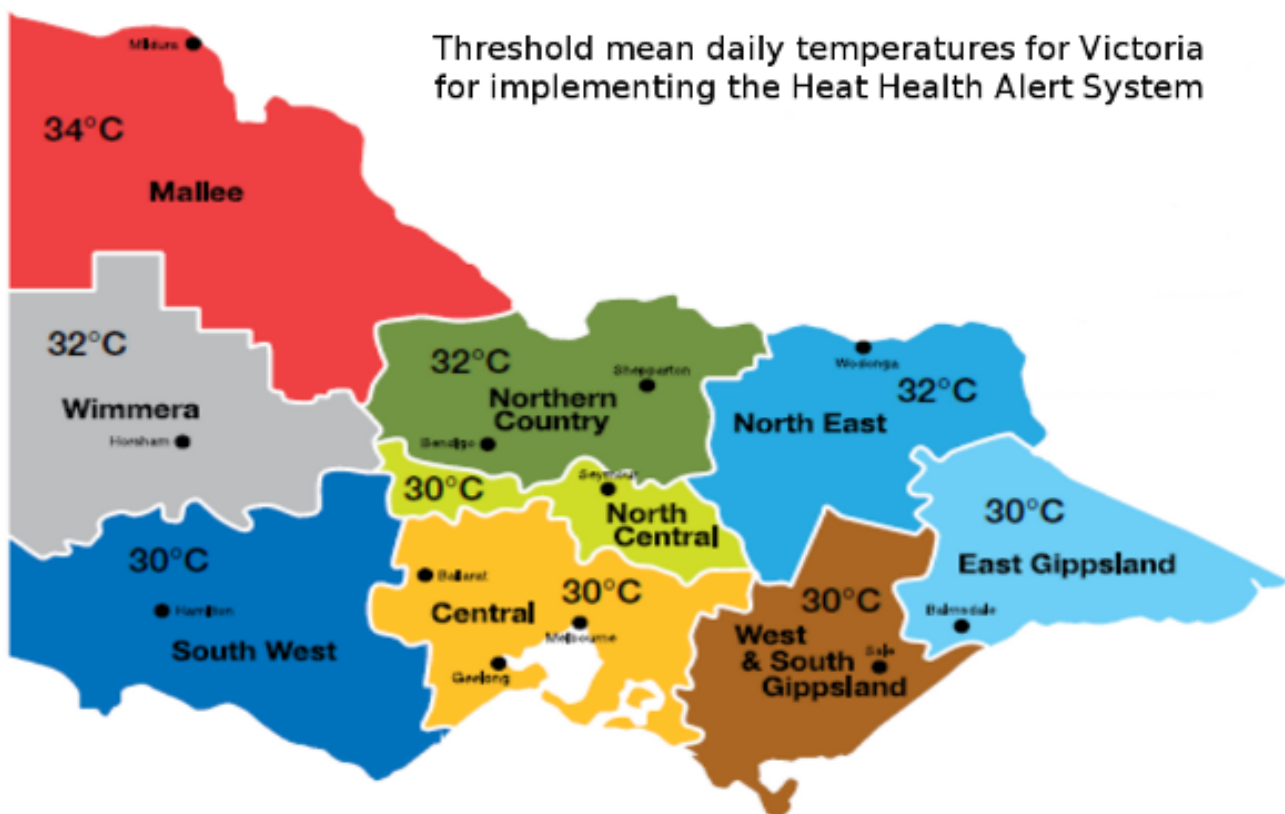


Figure 2: Calculating the Mean Daily Temperature



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

Figure 3: Extreme Heat Threshold Temperatures for Victoria

There is no minimum number of days for an extreme heat event. It can be declared for a period as short as a single day. However, the term "heatwave" has been defined, by the Bureau of Meteorology, as a period of at least three days where the combined effect of high temperatures and excess heat is unusual within the local climate.

11. Extreme Heat Hazard

11.1. Eastern Metropolitan Region Climate

Extreme heat events have become more frequent and prolonged across Victoria, as increased levels of greenhouse gas concentrations enter the atmosphere.

For further information relating to weather trends for Melbourne please refer to the Bureau of Meteorology (BoM) <http://www.bom.gov.au/climate/change/#tabs=Tracker&tracker=timeseries>.

11.2. Factors contributing to heat health issues

Aside from heat and the vulnerability of individuals there are a number of factors that can contribute to the adverse effects of extreme heat events. These include urban heat islands, different land uses, urban design, older housing, and accessibility to health services and access to air conditioning.

11.3. The At-Risk Members of the Population

Extreme heat events can affect anybody; however certain circumstances and behaviours can make some people more vulnerable to the effects of an extreme heat event. In addition, elements such as age, health status, environment, location, occupation and social and economic circumstances can make some groups within the community more vulnerable to the effects of an extreme heat weather event. These at-risk groups include:

- 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. These could include medications for allergies, blood pressure, heart problems, seizure, thyroid or water retention.
- People who have a mental illness.
- People with an illness or infection that causes dehydration or fever.
- People with a disability 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.
- People who are unable to acclimatise.
- Homeless people.
- People of low socioeconomic status.
- People who live alone or are socially isolated.
- People with low cardiovascular fitness.
- Non-English speaking people who may not be able to understand extreme heat announcements or who have reduced access to appropriate health or support services (Department of Health 2011).

12. Consequences

12.1. Wellbeing

Those who are responsible for people who may fall the group of at-risk people will need to ensure that they have an appropriate action plan for these events and take the necessary precautions before, during and after these extreme days.

When an emergency is occurring, specific planning and community engagement will need to incorporate these groups. Refer to Appendix 4 for the Communications Plan.

12.2. Liveability

Essential services and infrastructure especially transport and power supply are susceptible to extreme heat. The failure of these services can greatly compound the health impacts of an extreme heat event.

During these events there will also be a higher demand for drinking water. The loss of power would impact those that require the use of a pump to obtain their drinking water. These extreme heat events would also see an increase in the use of air conditioning, waste water production, traffic signal failures, traffic congestion and the potential loss of telecommunications.

12.3. Sustainability

During extreme heat events, Councils may see a higher level of staff absenteeism due to family members or others that may be dependent on them requiring assistance. This may cause an impact on the delivery of Council's critical services. Each Council within the EMR have a Business Continuity Plan (BCP) that identifies the critical services within each business unit that have been assessed and analysed to meet the needs for the response to the emergency.

12.4. Viability

Transport services, especially tram and train networks, are highly susceptible to asset failure as a result of an extreme heat event. The shut-down/disruption to these services may lead to a convergence of people who are unable to access relief from the heat. This may potentially result in heat related illnesses.

Action plans are implemented, this may include services being cancelled, altered or reduced.

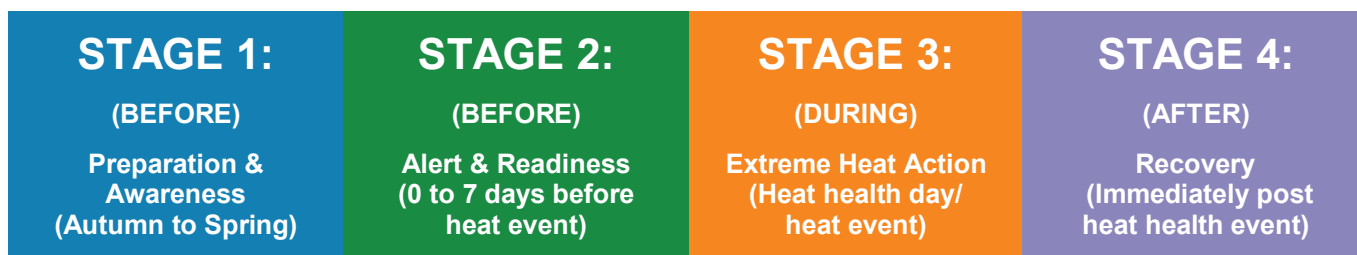
This stage may include a prolonged extreme heat event which is exacerbated by severity, length, blackout or another emergency. If an extreme heat event is severe and/or prolonged its effects may extend outside health and social care, such as power or water shortages, and/or where the integrity of health and social care systems is threatened.

At this level, illness and death may occur among the fit and healthy and not just in high-risk groups. In the event of a major incident being declared, Municipal Emergency Management Plans (MEMP) will be activated.

13. EMR Heat and Emergency Management Arrangements

The EMCEMP has developed an Action and Communications Plans that guide EMR Councils in implementing a staged process to managing extreme heat events collaboratively across all responsible agencies and with their communities to help reduce the event's impacts. These plans follow those specified in Section 6 – Authorising Environment above and the EMMV and will have the focus of mitigating the risk before, after and during the emergency to reduce the potential risk on the community.

The Action and Communications Plans have four clearly identifiable stages that include a set of clear actions (Refer Appendices 3 and 4).



Stage 1: Preparation and Awareness

All Councils within the EMR will work with the State Government, local agencies and carers to provide targeted community information in order to improve community resilience. EMR Councils recognise that the best defence to heat related illness is prevention.

Resilience can be built through education. Council departments can refer to Appendix 1 for a list of references, heat planning and educational resources to support communications before, during and after extreme heat event.

The most effective way to increase understanding about the health impacts of an extreme heat event is to actively educate people through the provision of the information. The aim of this is to minimise the risks for people who are already considered at high risk of becoming ill due to an extreme heat event. Each individual Council within the region will publish heat health information material via its website and social media posts. Refer to Appendix 4 - Communications Plan.

Stage 2: Alert and Readiness

Heatwave Forecasts

The BoM provides a seven-day forecast which includes the maximum and minimum temperatures for the state of Victoria. During the months of November and the end of March, the BoM has a “Heatwave Forecast” that provides an assessment of the locations within the state and shows data on the “low intensity heatwaves”, “severe intensity heatwaves” and the “extreme intensity heatwaves” for the last two three-day periods and the next five three-day periods. This alert may trigger a state of readiness for Council departments.

For information on the BoM heatwave service, refer to: <http://www.bom.gov.au/australia/heatwave/>

Heat Health Alert (HHA) System/ Warning Messages

When the BoM forecasts “heatwave conditions”, a notification is issued by the Chief Health Officer of DHHS through the Health’s Heat Health Alert System (HHAS) which operates each year from December to the end of February.

A heat health alert is emailed to all registered users including key stakeholder approximately 3-4 days prior to the extreme heat event to inform Councils, departmental program areas, hospitals, and health and community service providers of forecast extreme heat conditions that are likely to impact on human health. Heat Health Alerts are also issued by email to the generic heat alert email address at each Council (heatalert@Councilname.vic.gov.au).

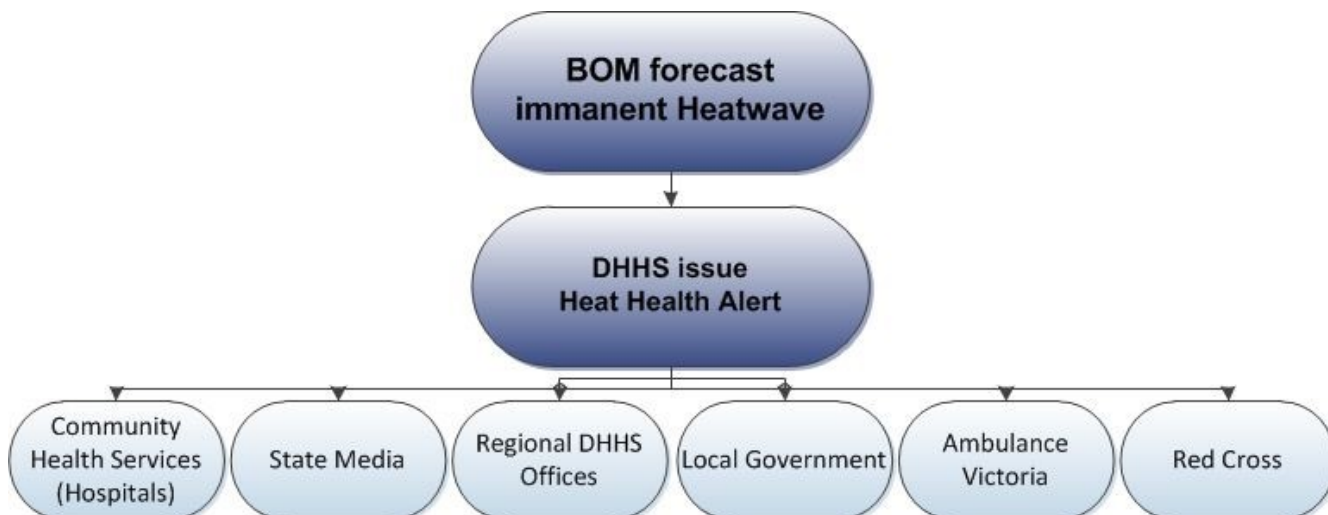


Figure 4: Victorian Extreme Heat Notification Process

Figure 4 shows the passage of messaging that occurs after an imminent extreme heat event is declared by the BoM.

DHHS also recommends that relevant organisations monitor local conditions, as there may be a need to activate this Extreme Heat Plan in the absence of a heat health alert.

A Heat Health Alert is an alert issued by DHHS to Local Governments and service providers advising the activation of state and local extreme heat responses. When the average temperature threshold of 30oC is forecast in the Central Region of the state (where the EMR is located), a region-based response will be activated.

The alerts are only intended to notify Local Government of impending extreme heat conditions. Consequently it will still be important for the EMR to monitor local conditions as it may be necessary to activate this extreme heat plan in the absence of an alert.

Stage 3: Extreme Heat Action

When the action plan is implemented, respective Council action plans may require some Council services being cancelled, altered or reduced.

This stage may include an extreme heat event which is exacerbated by severity, length, blackout or another emergency. If an extreme heat event is severe and/or prolonged its effects may extend outside health and social care, such as power or water shortages, and/or where the integrity of health and social care systems is threatened.

Stage 4: Community Support and Recovery

Depending on the nature and extent of the extreme heat event, the Municipal Relief and Recovery arrangements may be activated.

It is important that all relief and recovery activities following the extreme heat event are carefully selected and implemented in a way that will produce the most robust recovery.

Councils and the Victorian Government have a responsibility in ensuring that relief and recovery services are well coordinated and effective. The Victorian Government supports Councils to fulfil these local requirements by establishing the State’s relief and recovery arrangements and for coordinating all the regional and state level relief and recovery activities.

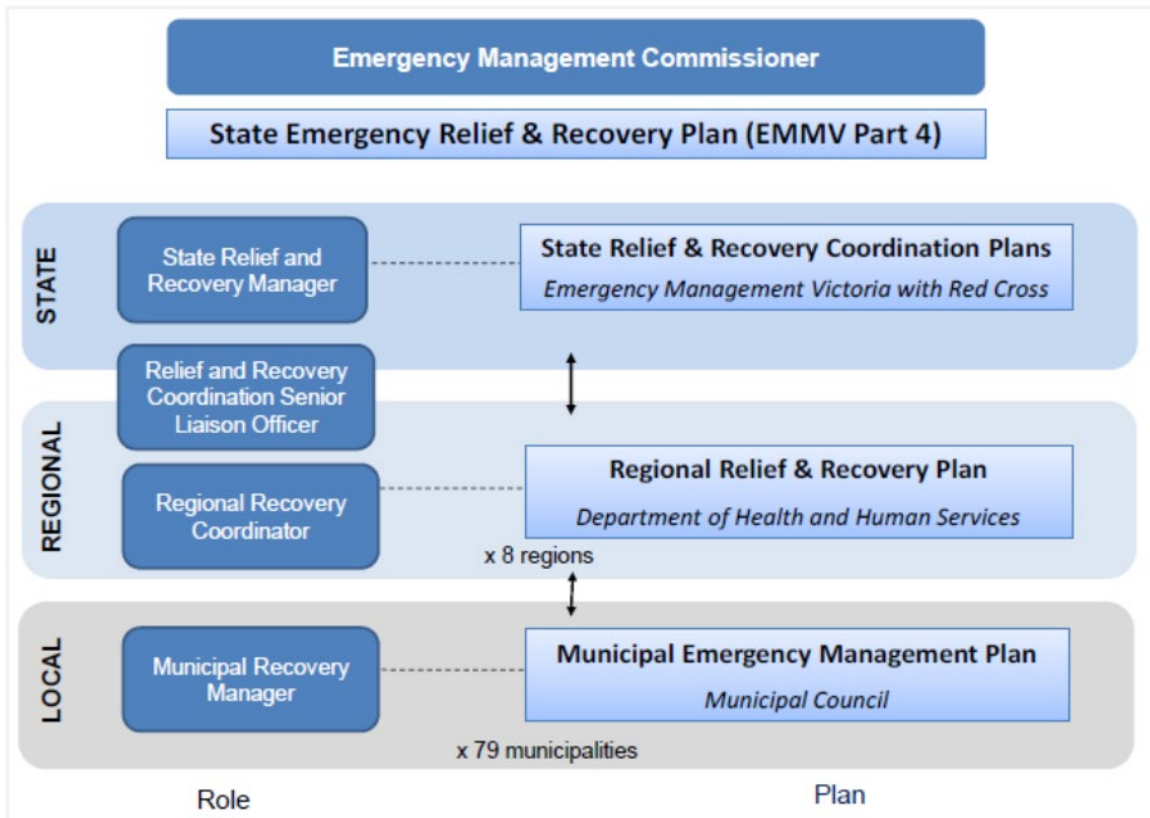


Figure 5: Operational Governance - State Emergency Relief and Recovery Plan (EMMV Part 4 – Figure 2)

Councils take the lead at municipal level for relief and recovery after an emergency because of the connections they have with the community. Part 4 of EMMV outlines the roles and responsibilities for response and recovery from any emergency in Victoria including the roles and responsibilities of Councils.

Recovery assistance by EMR Councils aims to help the individuals of the community to manage the reestablishment of those elements that are required for effective everyday functioning. These will differ depending on the severity of the emergency. Councils will work closely with the relevant agencies as per the individual MRRP Sub-Plans.

13.1. Community Information

The municipalities within the region will use the communication plan specified in Appendix 4 for the delivery of the messaging and information during an extreme heat event. The messaging will come from the Chief Health Officer (DHHS).

14. Contact List

The most recent and up to date contact list of emergency services, agencies and secondary support staff can be found in the Municipal Emergency Management Plan (MEMP) or via Council’s emergency management operating system (Crisisworks).

Appendix 1. References and Additional Resources

Preparation

- [Planning for Extreme Heat](#)
- [Rediplan Booklet](#)

Heat Stress

- [Extreme Heat and Heatwaves](#)
- [Extreme heat - community resources](#)
- [Planning for extreme heat and heatwaves](#)
- [Heat stress and heat-related illness](#)
- [Heat stress – preventing heatstroke](#)
- [Survive the heat](#)

Food Safety

- [Your Guide to Food Safety](#)
- [Emergency power failure food storage checklist](#)
- [Food Safety During Power Outages](#)
- [Power outages: food safety after a power failure](#)
- [Food Safety after a Power Outage](#)

Living without Power

- [Power outages: using alternative fuel and electricity generation safely](#)

Bushfire Smoke

- [Bushfire Smoke](#)

Babies and Children

- [Keeping Baby Cool in the Heat](#)
- [Babies in Hot Weather](#)
- [Keeping School Kids Safe in a Heatwave](#)
- [Hot Weather and Child Safety](#)

Sports

- [Heat stress and exercise](#)

Older People

- [Heat stress and older people](#)

Pet and Animal Welfare

- [Keeping Your Pet Cool during Summer](#)

Weather and UV Intensity

- [Bureau of Meteorology](#)
- [Sunsmart](#)

Victorian State Government Plans

- [State Extreme Heat Sub-Plan](#)
- [Victorian State Health Emergency Response Plan](#)
- [State Emergency Response Plan \(SERP\) – EMMV Part 3](#)
- [Victorian Emergency Management Manual](#)
- [Victoria's Climate Change Adaption Plan 2017 - 2020](#)

International

- [World Health Organisation \(WHO\) 10 Heat Health Fact Sheets](#)
- [Severe heat-wave in Europe: advice on health effects and ultraviolet exposure](#)

Appendix 2. Links to Municipal Emergency Management Plans

[City of Boroondara Municipal Emergency Management Plan](#)

[City of Knox Municipal Emergency Management Plan](#)

[City of Manningham Municipal Emergency Management Plan](#)

[City of Maroondah Municipal Emergency Management Plan](#)

[City of Monash Municipal Emergency Management Plan](#)

[City of Whitehorse Municipal Emergency Management Plan](#)

[Shire of Yarra Ranges Municipal Emergency Management Plan](#)

Appendix 3. Extreme Heat Action Plan

EMR COUNCILS	STAGE 1: (BEFORE) Preparation & Awareness (Autumn to Spring)	STAGE 2: (BEFORE) Alert & Readiness (0 to 7 days before heat event)	STAGE 3: (DURING) Extreme Heat Action (Heat health day/ heat event)	STAGE 4: (AFTER) Recovery (Immediately post heat health event)
Organisational Development Areas	<ul style="list-style-type: none"> • Ensure policies that cover working on hot surfaces are updated regularly • Promote working in hot conditions policies throughout Council • Assist Managers to develop procedures for their service area which implements Council policy 	<ul style="list-style-type: none"> • Promote <i>working in hot conditions</i> policies and procedures throughout Council • Advise staff of their obligations under working in hot conditions policies and procedures 	<ul style="list-style-type: none"> • Direct all managers to implement appropriate actions in accordance with Council's working in hot conditions policies • Advise Managers to brief staff on the working in hot conditions policies and procedures 	<ul style="list-style-type: none"> • Review working in hot conditions policies and procedures and make improvements as required

EMR COUNCILS	STAGE 1: (BEFORE) Preparation & Awareness (Autumn to Spring)	STAGE 2: (BEFORE) Alert & Readiness (0 to 7 days before heat event)	STAGE 3: (DURING) Extreme Heat Action (Heat health day/ heat event)	STAGE 4: (AFTER) Recovery (Immediately post heat health event)
Social & Community Services Areas	<ul style="list-style-type: none"> Maintain extreme heat information on the Council's website Identify and engage with key stakeholders to develop and promote identified extreme heat campaigns Brief staff about extreme heat management strategies Prepare to promote and provide key heat health messages for families Promote and distribute the Australian Red Cross RediPlan through Council's website and print distribution Make available guidelines from relevant peak bodies to kindergartens and private childcare for their own policy development Source appropriate extreme heat education material for culturally diverse groups Interact with schools and vulnerable facilities if necessary Perform risk assessments for festivals during hot months 	<ul style="list-style-type: none"> Promote, coordinate and oversee implementation of the EMR Extreme Heat Plan Develop and promote a 'Know your Neighbour' campaign throughout EMR Continue to engage key stakeholders Promote and provide key heat health messages to families Distribution of heat health materials to at-risk Council clients 	<ul style="list-style-type: none"> Promote, coordinate and oversee implementation of the EMR Extreme Heat Plan Promote a 'Know your Neighbour' campaign throughout EMR Promote key heat health messages to all families 	<ul style="list-style-type: none"> Review the EMR Extreme Heat Plan and recommend improvements

EMR COUNCILS	STAGE 1: (BEFORE) Preparation & Awareness (Autumn to Spring)	STAGE 2: (BEFORE) Alert & Readiness (0 to 7 days before heat event)	STAGE 3: (DURING) Extreme Heat Action (Heat health day/ heat event)	STAGE 4: (AFTER) Recovery (Immediately post heat health event)
Aged and Disability Support Areas	<ul style="list-style-type: none"> • Ensure Extreme Heat Service Procedures are reviewed regularly • Incorporate extreme heat planning into service planning • Brief staff re management strategies in an extreme heat event including Red Cross RediPlan • Promote key heat health messages to clients • Encourage clients to prepare for extreme heat conditions, including purchase of some non-perishable food items • Promote heat health messages and information regarding access to Government Assistance-Utilities) through Senior Citizens Reference Group in all key languages • Promote Department of Human Services and Department of Health and Human Services key community safety messages. • Help vulnerable residents to complete an emergency plan using the Red Cross Rediplan • Interact with vulnerable facilities 	<ul style="list-style-type: none"> • Include reminders about extreme heat and power outages actions in newsletters or by email/mail • Promote key heat health messages to clients • Encourage clients to prepare for extreme heat conditions, including purchase of some non-perishable food items • Encourage Senior Citizens Reference Groups to promote key heat health messages in all key languages • Promote Department of Human Services and Department of Health and Human Services key community safety messages • Advise staff of Working in Hot Conditions policies and procedures 	<ul style="list-style-type: none"> • Include reminders about extreme heat and power outages actions in newsletters or by email/mail • Promote key heat health messages to clients • Notify staff of declaration of extreme weather heat conditions and advise of Working in Hot Conditions policy • Reconsider service delivery arrangement and modify or cancel services. • Consider the declaration of extreme heat condition - procedure for assisted transport 	<ul style="list-style-type: none"> • Debrief with staff to improve the extreme heat plan and local procedures

EMR COUNCILS	STAGE 1: (BEFORE) Preparation & Awareness (Autumn to Spring)	STAGE 2: (BEFORE) Alert & Readiness (0 to 7 days before heat event)	STAGE 3: (DURING) Extreme Heat Action (Heat health day/ heat event)	STAGE 4: (AFTER) Recovery (Immediately post heat health event)
Economic & Environment Planning Areas	<ul style="list-style-type: none"> • Incorporate information about extreme heat and power outage planning and a checklist into Council's monthly community publications to the business community • Include extreme heat impact into regular Traders' Group meetings • Facilitate discussions with utility asset owners regarding power infrastructure at major shopping precincts • Incorporate extreme heat planning into start-up business kits • Promote Council's group purchase for solar panels program if it is offered • Promote appropriate tree planting in Council's education program on sustainable gardens/homes if appropriate • Incorporate considerations for extreme heat situations such as public water fountains/ shade/landscaping-trees into all community infrastructure plans • Incorporate extreme heat considerations into all urban planning and design projects 	<ul style="list-style-type: none"> • Incorporate information about extreme heat and power outage planning and a checklist into Council's monthly community publications to the business community • Include extreme heat impact discussions into regular Trader's Group meetings • Facilitate discussions with utility asset owners regarding power infrastructure at major shopping precincts • Promote Council's Group Purchase for Solar Panels Program if it is offered • Promote appropriate tree planting in Council's education program on sustainable gardens/homes if appropriate 		<ul style="list-style-type: none"> • Debrief with staff to improve the Extreme Heat Plan and local procedures

EMR COUNCILS	STAGE 1: (BEFORE) Preparation & Awareness (Autumn to Spring)	STAGE 2: (BEFORE) Alert & Readiness (0 to 7 days before heat event)	STAGE 3: (DURING) Extreme Heat Action (Heat health day/ heat event)	STAGE 4: (AFTER) Recovery (Immediately post heat health event)
Cultural Services Area	<ul style="list-style-type: none"> Brief staff about management strategies in an extreme heat event Review the event management kit to include relevant extreme heat management and promote to other organisations responsible for events within the municipality Ensure that event permits consider the risk and incorporate strategies for managing extreme heat as part of the event. Advise Ambulance Victoria of all events for which a permit has been issued 	<ul style="list-style-type: none"> Incorporate extreme heat planning into event management. Consider including provision of (free) water and shade Promote and distribute key heat health messages at all festivals and events in spring and summer 	<ul style="list-style-type: none"> Implement extreme heat event management policies and procedures 	<ul style="list-style-type: none"> Debrief with staff to improve the extreme heat plan and local procedures
EMR Libraries	<ul style="list-style-type: none"> Promote key heat health messages Determine and publicise opening hours in extreme heat conditions 	<ul style="list-style-type: none"> Promote key heat health messages Determine and publicise library opening hours in extreme heat conditions 	<ul style="list-style-type: none"> Display extreme heat warning at front entry and open library areas Consider providing additional seating Provide drinking water Consider extending opening hours 	<ul style="list-style-type: none"> Debrief with staff to improve the extreme heat plan and local procedures

EMR COUNCILS	STAGE 1: (BEFORE) Preparation & Awareness (Autumn to Spring)	STAGE 2: (BEFORE) Alert & Readiness (0 to 7 days before heat event)	STAGE 3: (DURING) Extreme Heat Action (Heat health day/ heat event)	STAGE 4: (AFTER) Recovery (Immediately post heat health event)
Parks and Recreation	<ul style="list-style-type: none"> • Provide extreme heat guidelines for sporting clubs associations and the physically active to all sporting clubs for their own policy development • Liaise with and encourage private pool owners to extend pool opening hours in extreme heat conditions • Plant shade trees and install water fountains • Incorporate extreme heat guidelines into new building design 		<ul style="list-style-type: none"> • Alert all sporting clubs to extreme heat events • Liaise with Leisure Services providers re their facilities and programs • Consider patrolling nature reserves to detect possible fire restrictions breaches 	<ul style="list-style-type: none"> • Debrief with staff to improve the extreme heat plan and local procedures
Customer service	<ul style="list-style-type: none"> • Update the extreme heat script 	<ul style="list-style-type: none"> • Advise staff of an extreme heat script 	<ul style="list-style-type: none"> • Implement the extreme heat script 	<ul style="list-style-type: none"> • Debrief with staff to improve the extreme heat plan and local procedures
Municipal Emergency Management Planning Committee (including MERO)	<ul style="list-style-type: none"> • Ensure that lines of communication and responsibility of the MERO are clear with respect to communication of extreme heat events • Ensure that relevant extreme heat actions are included in the review of MEMP and MRRPs 	<ul style="list-style-type: none"> • Receive alerts from DHHS • Monitor local conditions 	<ul style="list-style-type: none"> • Activate communication to Council staff and other agreed organisations regarding notification of declared extreme heat events 	<ul style="list-style-type: none"> • Debrief with staff to improve the extreme heat plan and local procedures
Building Maintenance Areas	<ul style="list-style-type: none"> • Install cooling devices in Council-owned residential properties where occupants are in at-risk categories 		<ul style="list-style-type: none"> • Monitor cooling devices to ensure they are functioning correctly and arrange repairs if necessary 	<ul style="list-style-type: none"> • Debrief with staff to improve the extreme heat plan and local procedures

Appendix 4. Extreme Heat Communications Plan

Communication with the community forms an integral part of this plan. The Eastern Metro Region (EMR) Councils are responsible for:

- Providing timely and accurate information to the community in line with Department of Health and Human Services messaging to reduce the possible impact of extreme heat events.
- Arranging all messaging at each stage of the Extreme Heat Communications Plan.
- Providing information to internal staff during the Alert and Extreme Heat Action stages.

The Communications Plan details key messages for each stage of the Extreme Heat Plan via various channels to ensure every possible avenue is used to reach the community. Councils may choose to deliver additional communications activities as required within the municipality.

EMR COUNCILS	STAGE 1: (BEFORE) Preparation & Awareness (Autumn to Spring)	STAGE 2: (BEFORE) Alert & Readiness (0 to 7 days before heat event)	STAGE 3: (DURING) Extreme Heat Action (Heat health day/ heat event)	STAGE 4: (AFTER) Recovery (Immediately post heat health event)
External Communications	Council will consider undertaking some or all of the following: <ul style="list-style-type: none"> • Extreme heat page launched on Council websites (relaunches in Nov each year) • Article in Council newsletters which are sent out to all residents • Media Releases sent to the local newspapers • Assist with the development and printing of any promotional material • Develop media and communications messages that inform the community about: 	Council will consider undertaking some or all of the following: <ul style="list-style-type: none"> • Council websites updated with current information regarding safety messages and cancellation / alterations to Council services. • Media Releases sent to local newspapers • Information added to Councils 'On Hold' telephone messages • Develop media and communications messages that inform the community about: • Possible changes to normal Council 	Council will consider undertaking some or all of the following: <ul style="list-style-type: none"> • Maintain Council websites with current information • Continue running Media Releases if printing deadlines can be met • Continue running 'On Hold Messages' and media and communication messages to the community 	<ul style="list-style-type: none"> • Implement improvements to the communication plan following feedback

EMR COUNCILS	STAGE 1: (BEFORE) Preparation & Awareness (Autumn to Spring)	STAGE 2: (BEFORE) Alert & Readiness (0 to 7 days before heat event)	STAGE 3: (DURING) Extreme Heat Action (Heat health day/ heat event)	STAGE 4: (AFTER) Recovery (Immediately post heat health event)
	<ul style="list-style-type: none"> • Possible changes to normal Council service delivery • Basic safety measures • Information on where to get further information and/or medical advice 	<ul style="list-style-type: none"> • service delivery. • Basic safety measures • Information on where to get further information and/or medical advice 		
Internal Communications	<ul style="list-style-type: none"> • Maintain extreme heat information on the Council's intranet • Staff education rolled out 	<ul style="list-style-type: none"> • Maintain the intranet with up to date supportive information 	<ul style="list-style-type: none"> • Follow directives of health authorities 	<ul style="list-style-type: none"> • Implement improvements to the communication plan following feedback

Appendix 5. Extreme Heat Case Studies

Two recent extreme heat events have occurred in 2009 and 2014 resulting in higher than anticipated numbers of deaths, presentations to hospital emergency and infrastructure failure.

A summary of the effects from the two extreme heat events may be found here:

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