

# **Cardinia Shire Council Municipal Heat Health Plan 2020 - 2025**

Version 1.0 – September 2020



**Cardinia Shire Council**

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If you need an interpreter, phone the Translator Interpretation Service on 131 450.

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## Amendment History

No.	Version	Date	Amendment details	Made by
1	0.1	Feb 2020	Draft Action Plan Developed	Stewart Matulis / Alicia Groves
2	0.2	Feb 2020	Relief and Recovery Feedback incorporated.	Stewart Matulis / Alicia Groves
3.	0.3	Mar 2020	Municipal Emergency Management Planning Committee (MEMPC) Feedback incorporated	Alicia Groves
4.	0.4	May 2020	Draft Heat Health Plan 2020-25 developed Submitted to MEMPC for endorsement	Stewart Matulis / Alicia Groves/ Janette Schimleck
5	1.0	September 2020	Endorsed by MEMPC	Stewart Matulis

# **1 Introduction**

## **1.1 Approval and validity period**

This plan has been produced by and with the authority of the Cardinia Shire Council pursuant to Section 20 (1) of the *Emergency Management Act 1986*.

This plan is an endorsed sub plan to the Cardinia Shire Council Municipal Emergency Management Plan and is valid for a maximum period of 5 years from the latest date.

## **1.2 Document control**

The master copy of this plan is located in Council's Records Management System

## **1.3 Distribution**

An electronic version of these procedures is available on Council's intranet and hard copies will be kept at Council building and sites as appropriate. Copies of this plan have also been distributed to stakeholders and emergency service agencies.

## **1.4 Review**

This Plan will be updated annually with a full review in 2025.

This plan is administered by the Emergency Management Team of the Safe and Inclusive Communities Business Unit of the Cardinia Shire Council.

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20 Siding Avenue, Officer. 3809  
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## **1.5 Aim**

The aim of this document is to reduce the impact of Heat Health Emergencies (reduce harm) to members of community. This will be achieved by developing and implementing municipal-wide approaches to dealing with extreme heat events with community and other stakeholders in partnership with Council.

A Heat Health Action Plan has been developed as part of this document to assist with achieving this approach in three key areas:

- Community Information
- Infrastructure Preparedness
- Extreme Heat Day Response

This plan also serves as a reference and guide before, during and after extreme heat events

## **1.6 Scope**

This plan is relevant to the area of Cardinia Shire.

## **1.7 Objectives**

The Cardinia Shire Council Heat Health Plan has the following objectives.

- Contribute to the safety and wellbeing of the community and visitors within the Cardinia Shire when an extreme heat event occurs.
- Help build community resilience to extreme heat events.
- Plan for extreme heat events.
- Enact arrangements to support vulnerable members of the community.
- Communicate heat health messages.
- To assist in the prevention of extreme heat related harm to vulnerable community members, visitors to the shire and wider community members.
- To assist and provide information to emergency services in the event of an emergency or as requested.
- To assist stakeholders to meet the State Emergency Management priorities.

### **1.7.1 State Emergency Management Priorities**

The State Emergency Management Priorities provide clear direction on the factors for consideration and action during response to any emergency. The intent is to minimise the impacts of emergencies and enable affected communities to focus on recovery as early as practicable.

The following State Emergency Management Priorities underpin the planning and operational decisions made when managing the response to emergencies in Victoria.

- Protection and preservation of life is paramount
- Issuing of information and warnings to the community detailing incident information that is timely, relevant and tailored to assist community members make informed decisions about their safety.

- Protection of critical infrastructure and community assets that supports community resilience.
- Protection of residential property as a place of primary residence.
- Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability.
- Protection of the environmental and conservation assets that considers cultural, biodiversity and social values of the environment.

## **1.8 Links to other plans/procedures**

The Cardinia Shire Heat Health Plan is a sub plan to the Municipal Emergency Management Plan for the Cardinia Shire. Stakeholders who live within the Shire may have their own individual plans and procedures for extreme heat events.

When responding to or managing extreme heat events in the Shire, the following State and Council plans and procedures should also be referred to for information and guidance as required.

- The Heat Health Plan for Victoria 2019  
<https://www2.health.vic.gov.au/about/publications/policiesandguidelines/heat-health-plan-for-victoria>
- State Health Emergency Response Plan (SHERP)  
<https://www2.health.vic.gov.au/emergencies/shera>
- Cardinia Shire Municipal Emergency Management Plan (MEMP)  
[https://www.cardinia.vic.gov.au/directory\\_record/3078/municipal\\_emergency\\_management\\_plan](https://www.cardinia.vic.gov.au/directory_record/3078/municipal_emergency_management_plan)
- Cardinia Shire Relief and Recovery Plan [INT1684530](#)
- Operations During The Declared Fire Danger Period And Severe Weather Events – Cardinia Shire Policy [INT1023265](#)

## **2 Understanding Extreme Heat and Heatwaves**

### **2.1 Extreme Heat in Context**

Hot weather is one of the greatest natural hazards causing death in Australia, and unlike floods or fires, heat is considered to be a more passive threat. Complacency about extreme heat events is common, as Australians are generally accustomed to living in hot weather and are known to be resilient in hot conditions. In addition, new Australians may not be versed on the impacts of extreme heat events. As such, many residents do not believe that they are susceptible to heat-related health impacts.

During January 2009, Victoria experienced a heatwave with temperatures amongst the highest ever recorded. An estimated 374 deaths occurred during this time, compared with the average rate in the same week over the previous five years. According to the Chief Health Officer's 2009 heatwave report, Ambulance Victoria experienced a 2.8-fold increase in cardiac arrest cases over this period. The heatwave in January 2014 resulted in a five-fold increase in heat-related presentations during the week of the heatwave, and an estimated 167 excess deaths during the heatwave.

The effects of climate change are resulting in longer Summers in Australia and an increase in extreme weather events. The Australia Institute states that "extended Summers will have significant impacts on Australia's tourism, construction and mining sectors, as well as impacting the everyday lives of Australians".

Prevention requires a portfolio of actions at different levels. There is no single agency that has complete responsibility for building, maintaining and protecting the health of at-risk populations in extreme heat. Therefore, it is important that individuals, government and the broader community work together to reduce the health impacts associated with extreme heat and provide support to those most vulnerable in the community.

According to the World Health Organisation (WHO), adverse health effects of extreme heat are largely preventable if communities, health and social care systems and public infrastructure are prepared.

### **2.2 Heatwave Defined**

A heatwave is technically defined by the Bureau of Meteorology as 'Three or more days of high maximum and minimum temperatures that are unusual for that location.'. As there is no standardised definition, this document adopts that used by the Victorian Department of Health to ensure consistent community understanding:

"A period of abnormally and uncomfortably hot weather that could impact on human health, community infrastructure and services".



## 2.3 Extreme heat and heat health thresholds

### Calculating the average temperature

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

An example of this calculation is demonstrated below.

#### Melbourne

##### Tuesday

Min: 20°C

Max: 38°C

#### Average calculation for Tuesday

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

The threshold for Melbourne = average of 30°C.

##### Wednesday

Min: 25°C

Max: 31°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.

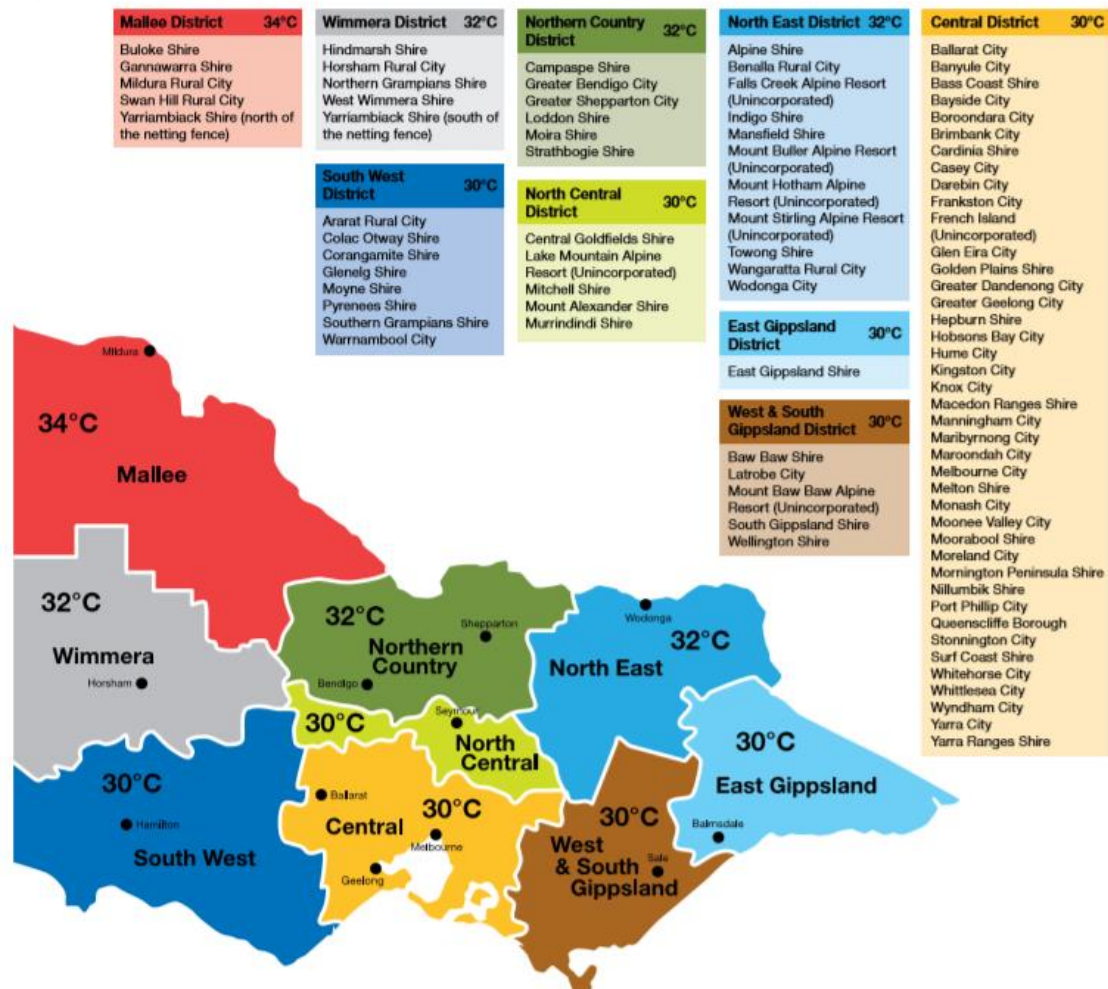
The Heat Health Plan for Victoria defines extreme heat as the minimum mean temperature that is likely to impact on the health of a community – this is called the heat health threshold by the Department of Health and Human Services.

When temperatures rise above these thresholds, heat-related illness and mortality increases.

[www.health.vic.gov.au/environment/heatwave](http://www.health.vic.gov.au/environment/heatwave)

As Cardinia Shire Council is a part of Central District, the heat health threshold is 30 degrees Celsius.

Figure 1: Heat health temperature thresholds and corresponding weather forecast districts



The heat health temperature thresholds are aligned with the Victorian Country Fire Authority's (CFA) total fire ban and fire danger ratings districts and the Bureau of Meteorology's weather forecast districts.

Images courtesy of Department Health – Heatwave Plan for Victoria

[http://docs2.health.vic.gov.au/docs/doc/45C7A59BDE5B1E95CA257A360015AAB5/\\$FILE/Heatwave%20plan%20for%20Victoria.pdf](http://docs2.health.vic.gov.au/docs/doc/45C7A59BDE5B1E95CA257A360015AAB5/$FILE/Heatwave%20plan%20for%20Victoria.pdf)

## 2.4 Vulnerable population groups

Periods of extreme heat can affect anyone in the population. However, there are certain groups of people who are more susceptible to the health impacts of heat than others.

Vulnerable population groups include people with the following characteristics:

- older people (65 years and older)
- children under five years old
- women who are pregnant and mothers who are nursing
- people with a pre-existing medical condition, such as diabetes, heart disease, kidney disease or mental illness
- people with a condition that impairs the body's abilities to regulate its own temperature such as Multiple Sclerosis
- those living alone with limited social contact
- people taking certain medications, such as anti-depressants or insomnia medication
- people with a disability.

People in the following circumstances are also susceptible to health impacts of heat:

- people without air-conditioning or who decide not to use it
- people who are homeless
- low income earners
- those with limited access to transport
- people who are outdoors for any reason, especially while undertaking strenuous activity such as working or playing sports
- residents in the upper floors of multi-storey buildings
- some people from culturally and linguistically diverse backgrounds who cannot access health services or information.
- Tourists and new Australians.

Source: Department of Human Services 2009

WAYSS is identified in the Southern Melbourne Area, "Sleeping Rough in Extreme Weather: Memorandum of Understanding 2017" as the lead agency for people who are homeless during extreme weather events.

### Response

On extreme weather alert days, WAYSS has been identified as lead agency.

**Extreme DAY heat**

•WAYSS Email MoU organisations updated listing of local options accessible to rough sleepers for access to aircon, cool water and accommodation supports. Facilitate support and referral for rough sleepers as required.

<https://www.wayss.org.au/>  
727

Monday to Friday 9am-5pm

After hours service 1800 627

Email [info@wayss.org.au](mailto:info@wayss.org.au)

Phone (03) 9791 6111

### 3 Communicating the Impacts of Extreme Heat

This plan will be supported by a specific Council communication plan that outlines how the Council will improve community understanding of:

- Extreme heat conditions
- The risk posed to human health
- steps that individuals, communities and organisations can take to minimise these risks.

These communications will work in partnership with other State agencies and Emergency service communications plans to promote key messaging as well as the information sources listed in section 2.1.

#### 3.1 Key Sources for Heat Health Information

##### [Cardinia Shire Council Website](https://www.cardinia.vic.gov.au/info/20019/fire_flood_and_emergencies/57/keeping_safe_in_extreme_heat)

<[https://www.cardinia.vic.gov.au/info/20019/fire\\_flood\\_and\\_emergencies/57/keeping\\_safe\\_in\\_extreme\\_heat](https://www.cardinia.vic.gov.au/info/20019/fire_flood_and_emergencies/57/keeping_safe_in_extreme_heat)>

- Provides a hub for all relevant State, Emergency Service and Community organisation information related to heat health for the local community, including specific information tailored for Cardinia Shire developed by Council.

##### [Heat health alert system](http://www.health.vic.gov.au/environment/heatwaves-alert) <[www.health.vic.gov.au/environment/heatwaves-alert](http://www.health.vic.gov.au/environment/heatwaves-alert)>

- Notifies local governments, departmental program areas, hospitals and state-wide or major metropolitan health and community service providers of forecast heatwave conditions that are likely to impact on human health. Individuals and organisations can subscribe to receive alerts.

##### [Better Health Channel](http://www.betterhealth.vic.gov.au/) <[www.betterhealth.vic.gov.au/](http://www.betterhealth.vic.gov.au/)>

- Provides health and medical information to improve the health and wellbeing of people and the communities they live in, including information relating to heat health. Information is quality-assured and reliable, up to date, locally relevant and easy to understand.

##### [Emergency preparedness reference guide](https://providers.dhhs.vic.gov.au/emergency-management) <<https://providers.dhhs.vic.gov.au/emergency-management>>

- Outlines how the Community Services, health and aged care sectors can prepare for external hazards that may affect services, including extreme heat.

## 4 Roles and Responsibilities

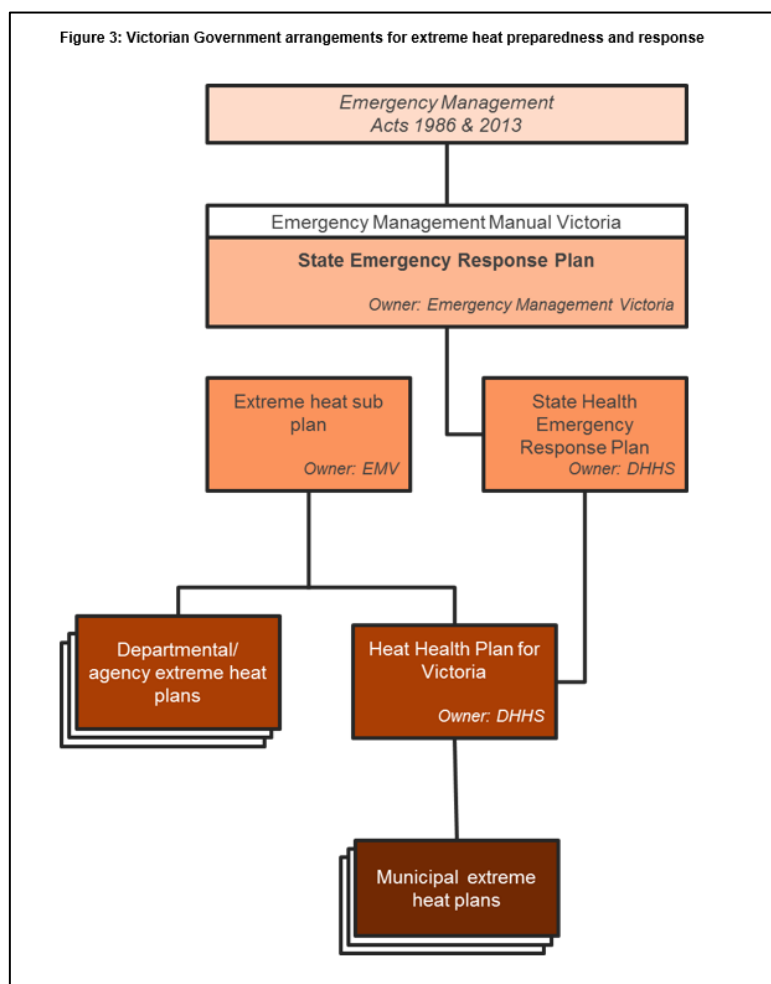
When a heatwave occurs the Emergency Management Commissioner (EMC) assumes the role of control agency to manage the event.

Emergency (as per the Emergency Management Act 2013)	Form of emergency	Control agency (agency with the primary responsibility for responding to the emergency)	Class of major emergency
An earthquake, flood, wind- storm or other natural event	Earthquake	VICSES	1
	Flood	VICSES	1
	Heat	EMC	2
	Storm	VICSES	1
	Tsunami	VICSES	1
	Landslide	VICSES	1

[Emergency Management Manual Victoria](https://files-em.em.vic.gov.au/public/EMV-web/EMMV-Part-7.pdf) <<https://files-em.em.vic.gov.au/public/EMV-web/EMMV-Part-7.pdf>>

Under the Emergency Management Act 2013, Emergency Management tasks are:

- Ensuring public messaging is coordinated, consistent and complementary
- Ensuring the impact and consequences of extreme heat on the community are identified and managed in an integrated and coordinated manner.
- Coordinating the whole-of-government response to emergencies caused by the heat.



## 4.1 State Role and Response

The Department of Health and Human Services (DHHS) has a responsibility for reducing the impact of extreme heat on public health by preparing for and responding to heat events. It coordinates the health response during emergencies through the State Health Emergency Response Plan (SHERP) <https://www2.health.vic.gov.au/emergencies/shera>

This heat health response includes the Chief Health Officer and the State Health Coordinator forming part of the State Coordination Team and the State Emergency Management Team.

The Heat Health Plan for Victoria 2019 outlines the whole of government approach to extreme heat events.

## 4.2 Council's Role and Response

Local government has a responsibility to protect the health of the community from heat related harm. The Heat Health Plan for Victoria encourages Local Government to:

- Plan for extreme heat events.
- Enact arrangements to support vulnerable members of the community.
- Communicate heat health messages.
- Coordinate ongoing support and local recovery activities as required.

Local Government plays an important role in helping increase community capacity and resilience to “prepare, plan for, respond to and recover from extreme heat events (State Heat Plan 2014). Below is summary of the response activities that could be undertaken by Council in the occurrence of a heat health event.

### ***Before a heat event***

- Plan and prepare for extreme heat events
- Monitor forecasts and alerts
- Activate Communication Plan for extreme heat events to inform staff, external stakeholders and community.
- Ensure the Vulnerable Persons register is up to date. Perform a check on any persons not verified by agency.

### ***During a heat event***

- Continue to monitor forecasts and alerts.
- Continue comprehensive communications.
- Follow up support to Vulnerable Persons as required.
- Coordinate local relief to community as required.

### ***After a heat event***

- Coordinate ongoing support and local recovery activities as required.
- Perform internal review Heat Health Plan and adjust as necessary.

## 4.3 Stakeholder / Community's Organisations Role

Community organisations and other stakeholders across the Shire play an important role in the dissemination of and access to information relating to heat health in the community as well as preparing their organisation and clients for and responding to extreme heat events.

#### **4.4 Community's Role**

Community has a responsibility to stay informed, plan and prepare for extreme heat events. Proactive steps should be taken by community members to reduce exposure to extreme heat. Members of the community should check in on one another before during and after extreme heat events.

It is up to all of us to make sure that we plan ahead for extreme weather events to reduce the likelihood of heat related harm.

## 5 Heat Health Action Plan

As part of the 2019/20 Cardinia Shire Heat Health Plan review, stakeholders were engaged in the development of an updated plan. Engagement was invited both through an online questionnaire as well as an attendance-based workshop.

The data received through stakeholder engagement was collated into three main categories for discussion with the Cardinia Shire Relief and Recovery Sub-Committee. Consistent themes through the feedback included; simplified and standardised communications and messaging and empowering community to take responsibility for Heat Health.

The Heat Health Action Plan was categorised into streams:

- Communication,
- Infrastructure, and
- Response.

These streams were further developed into timelines. What Council, Stakeholders and Community can do

- Now,
- In 2-5 years, and
- Proactively in 5+ years.

### 5.1 Endorsement

The Cardinia Relief and Recovery Sub-Committee and the Municipal Emergency Management Planning Committee have endorsed the Heat Health Action Plan.

### 5.2 Monitoring

Implementation Plans will support the delivery of each action or outcome. These implementation plans and their progress will be monitored by the Cardinia Relief and Recovery Sub-Committee.

As specific actions and outcomes are achieved, documentation related to these will be added to the Appendices of this Plan.

# Cardinia Shire Heat Health Action Plan

## Community Information Stream

Empower through information sharing, education and awareness, community to be accountable for their own heat health

Year 1	Cardinia Shire Council	Stakeholders	Community
	Update and continue to provide downloadable and up to date resources on Council website with Heat Health messaging.	Subscribe to heat health alerts from the Chief Health Officer.	Create a personal safety plan for heat health events.
	Place Information posters related to Heat Health in appropriate locations in Council Buildings – ie in restrooms and kitchens/drinking fountains	Place Information posters related to Heat Health in appropriate locations in Buildings – ie in restrooms and kitchens/drinking fountains	Subscribe to heat health alerts from the Chief Health Officer.
	Continue Heat Health messaging on high risk days to stakeholders and special interest groups including <b>vulnerable community members</b> .	Promote heat health messages through various communication tools like media, social media and community newsletters.	Watch or listen to news reports that provide more information on heat health.
	Use thermal imaging camera on warm weather days as community engagement opportunities about emergency preparedness within the shire to educate, inform and generate community interest.	Provide up-to-date heat health resources for patients /clients and their carers.	Share the information with others.
	Continue to engage with and build connections throughout community to share the responsibility of Heat Health via the Relief and Recovery Sub-Committee		
	Promote passive cooling techniques for community places and residential houses.		
Year 2 – 5	Continue to implement and monitor the success of actions from Year 1	Continue to implement and monitor the success of actions from Year 1	Continue to implement and monitor the success of actions from Year 1
	Assist the Cardinia Shire Relief and Recovery Sub-Committee to monitor and evaluate the implementation of Heat Health Plan actions	Activity participate in the Cardinia Shire Relief and Recovery committee to monitor and evaluate the implementation of Heat Health Plan actions	Activity participate in the Cardinia Shire Relief and Recovery committee to monitor and evaluate the implementation of Heat Health Plan actions



# Infrastructure Stream

Enhance community infrastructure to support effective heat health

Year 1	Cardinia Shire Council	Stakeholders	Community
	<p>Create online maps displaying Council Sites designated Community Cooling Places and other heat health related infrastructure on the Cardinia Shire Council website</p> <ul style="list-style-type: none"> <li>○ Council sites – ie pools, libraries, CCC</li> <li>○ Community houses</li> <li>○ Businesses and other community assets</li> <li>○ Water fountains</li> </ul>	<p>Promote and encourage the use of passive cooling techniques</p> <ul style="list-style-type: none"> <li>● Add shutters and external blinds to north facing rooms to reduce direct exposure.</li> <li>● Install thermal isolation materials on roofs and windows (for example double glazing).</li> <li>● Use plants and trees to create shading and reduce heat absorption and exposure.</li> </ul>	<p>Investigate the use of passive cooling techniques in and around their home.</p>
	<p>Create criteria for Community Cooling Places.</p>	<p>Review locations of hydrations fountains available in public areas/spaces with stakeholder facilities and sites.</p>	
	<p>Provide double sided A Frames with Extreme Heat day messaging and Fire Danger Rating messaging to strategic Cooling places within the Shire..</p>		
	<p>Investigate the purchase of “bubbler” hydration stations to be used at Council and Communities events throughout the Summer period.</p>		
	<p>Review locations of hydration fountains with Council reserves and Community locations.</p>		
Year 2-5	<p>Install additional hydration fountains as required</p>	<p>Ensure hydration stations are available at community events</p>	<p>Implement passive cooling techniques in and around their home.</p>
	<p>Purchase ‘Bubbler’ hydration stations and promote usage at Council and community events</p>	<p>Install additional hydration fountains at sites as required.</p>	
	<p>Actively participate in the Community Cooling places initiative – 10 sites designated</p>	<p>Actively participate in the Community Cooling places initiative – 10 Sites Designated</p>	
	<p>Develop policies and advocate for the implementation of passive cooling in Council reserves, community places and streetscapes.</p>	<p>Implement passive cooling techniques across stakeholder properties</p>	
	<p>Develop and advocate for the use of improved passive cooling techniques across Council buildings and sites</p>		

	<p>Review the Public Transport network within the Shire in regard to connectivity to Community Infrastructure.</p> <p>Aim is to measure walking distance between community infrastructure and public transport network.</p>		
	<p>Implement passive cooling techniques across key council properties</p>		
<b>Years 5+</b>	<p>Advocate for an increase focus on planning for “greening” urbanised areas in the growth corridor to reduce heat island effect.</p>		
	<p>Increase natural shade opportunities (trees) in and around public transport stops.</p>		
	<p>Implement a Shade Policy across the Shire incorporating:</p> <ul style="list-style-type: none"> <li>-public meeting points</li> <li>-bbq / seating facilities</li> <li>-public transport pickup points</li> <li>-school pick up zones</li> </ul> <p>-Where natural shade is not practical, installation of shade structures near all public transport waiting points.</p>		
	<p>Advocate for improvements to the Public Transport network within the Shire to increase connectivity to key Community Infrastructure</p>		

# Extreme Heat Day Response Stream

Develop procedure and process that support heat health on extreme heat days

Year 1	Cardinia Shire Council	Stakeholders	Community
	Provide heat health Information to stakeholders and community as per communication plans	Ensure to access drinking water for clients at stakeholder sites	Review and activate personal safety plan for heat health events.
	Complete relief actions as required	Provide heat health Information to stakeholders and community as per communication plans	Access heat health Information
	Investigate the feasibility of extending the opening hours of Public Pools and other Council Cooling Places with the Shire	Investigate the feasibility of extending the opening hours of sites designated as Community Cooling Places	Take actions to increase passive cooling in houses
Year 2-5	Activate Community Cooling Places	Activate Community Cooling Places	Attend Community Cooling Places as required
	Incorporate extended opening hours of Public Pools and other Council Cooling Places on extreme Heat days as a business as usual practice where possible.	Incorporate extended opening hours of sites designated as Community Cooling Places on extreme Heat days as a business as usual practice where possible.	Continue to implement and monitor the success of actions from Year 1.
	Continue to implement and monitor the success of actions from Year 1	Continue to implement and monitor the success of actions from Year 1	

## **6 Appendices**

Appendices will be added to this plan as required.