Warrnambool City Council

Heatwave Plan

May 2012

Updated Dec 2015

Directorate: City Infrastructure

Department: Health & Local Laws

Adoption Date: 15 May 2012 (MEMPC)

Updated: 3 December 2015

The Warrnambool City Council Heatwave Plan is a sub plan of the Warrnambool Municipal Emergency Management Plan (MEMP). This plan is not a stand alone document.

Council acknowledges the assistance of the Glenelg Shire Council in the development of this plan.

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Introduction

Local governments across Victoria have been asked to prepare heatwave plans to support their local communities to adapt to heatwave conditions. By developing our own plan, we can use our understanding of local conditions and resources to better prepare-for, respond-to and recover-from heatwave conditions, taking action to support the community to reduce health impacts where possible.

High temperatures can seriously impact on the health of people in our area. We need to be well prepared in advance to make sure our community has the necessary tools to cope in times of extreme heat.

By having a *Heatwave Plan*, we can:

- Ensure that 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.

The aim of our *Heatwave Plan* is to:

- Protect the health of the Warrnambool community by reducing harm from heatwaves.

We will achieve this by:

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

Importantly, the strategy outlines a plan of action for staff to better prepare for, respond to and prevent heatwave related harm. A four staged approach will apply.

- Phase 1: Pre summer preparation
- Phase 2: During summer prevention
- Phase 3: Heatwave response
- Phase 4: Heatwave recovery

The *Warrnambool City Council Heatwave Plan* is underpinned by a long term approach by Council to reduce the scale of climate change and decrease its impact by adapting the built environment. Council promotes sustainable living by encouraging all residents to take practical action and reduce their ecological footprints.

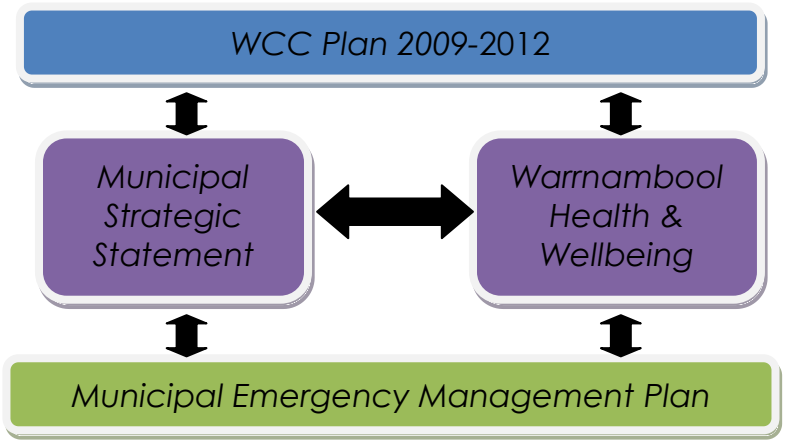
Policy Context

The *Heatwave Plan* has been written to:

- Be consistent with legislation, departmental guidelines and other Council planning frameworks relevant to heatwaves. These include:
    - *Heatwave Plan for Victoria* (2011);
    - *Public Health and Wellbeing Act 2008;*
    - *Our Environment Our Future Sustainability Action Statement 2006;*
    - *Emergency Management Act 1986;*
    - *Taking action for Victoria's future: Climate Change White Paper – The implementation plan;*
    - *Climate Change Act 2010;*
    - *Planning and Environment Act 1987*; and
    - *Local Government Act 1989.*
- Outline health and community actions and response arrangements to heatwave alert;
- Identify vulnerable persons who are clients of Warrnambool City Council;
- Propose a clear communication strategy to initiate alert, response and recovery phases of the plan;
- Describe key stakeholder roles and recommend stakeholder actions; and
- Promote a community awareness and education component.

The *Warrnambool City Council Heatwave Plan* is an important part of a suite of Council publications that provide consistent community-wide messages around how to stay healthy. This plan informs existing frameworks by outlining a coordinated, municipal wide approach to better understanding the health impacts of heatwaves.

Figure 1: Planning Responsibilities of Local Government



Health Impact of Heatwaves

As temperatures rise, so does the risk of contracting a heat related illness; medical conditions that results from the body's inability to cope with heat and cool itself. If left untreated, a heat illness can lead to serious complications, even death. In fact, heat kills more people than tornadoes, hurricanes, lightning and flash floods – combined.

Heat-related illness can range from mild conditions, such as a rash or cramps, to very serious conditions, such as heat stroke, which can be fatal. Heatwaves can also exacerbate existing medical conditions including heart and kidney disease. Heat-related illness can make people feel uncomfortable, not so much because they feel hot, but rather because they sense how difficult it has become to lose body heat at the rate necessary to keep their inner body temperature close to 37ºC. The body responds to this stress progressively through three phases.

1. Heat cramps - muscular pains and spasms caused by heavy exertion. Although heat cramps are the least severe Phase they are an early signal that the body is having trouble with the heat.
2. Heat exhaustion - typically occurs when people exercise heavily or work in a hot, humid place where body fluids are lost through heavy sweating. Blood flow to the skin increases, causing a decrease of flow to the vital organs. This results in mild shock with symptoms of cold, clammy and pale skin, together with fainting and vomiting. If not treated the victim may suffer heat stroke.
3. Heat stroke - is life threatening. The victim's temperature control system, which produces sweating to cool the body, stops working. The body temperature may exceed 40.6ºC potentially causing brain damage and death if the body is not cooled quickly.

High temperatures can also be linked to increased hospital admissions relating to heat stress, dehydration, or as a result of heat exacerbating existing conditions; increased rates of certain crimes particularly those related to aggressive behaviour such as homicide; increased number of work-related accidents and reduced work productivity; and decreased sporting performance.

To help prevent the onset of a heat related illness, people in the Warrnambool Municipality are advised to follow the four key health messages promoted by the Department of Health (DH).

- Keep cool
- Drink plenty of water
- Stay out of the sun
- Look after yourself and others.

General care for heat emergencies includes cooling the body, giving fluids and minimising shock.

Heatwaves and the Warrnambool Municipality

People in Australia are generally accustomed to living in hot weather and are known to be resilient in hot conditions. For this reason, many of us can become complacent about extreme heat events and don't believe we could be susceptible to heat-related health impacts.

The events of the January 2009 heatwave in Victoria resulted in an estimated 374 excess deaths compared with the average rate in the same week over the previous five years, and serves as a reminder that the impact of heatwaves on human health is real and life threatening[1].

Climate change research conducted for the Glenelg Hopkins Region, by the Victorian Government Department of Sustainability and Environment in 2008, demonstrates that climate change is expected to increase the frequency and intensity of heatwaves in our area with conditions forecast to be hotter and drier than present today. By 2030, average annual temperatures will be around 0.8°C warmer and the number of hot days (days over 30°C) will continue to increase. By 2070, under a higher emissions growth scenario, Warrnambool's temperatures would resemble those of present day Horsham, while annual rainfall would be similar to present day Hamilton. Extreme weather events are predicted to become more frequent and severe in the years to come[2].

Very hot days are usually associated with hazardous fire weather conditions in the region. The fire threat is increased when thunderstorms develop causing lightning that provides the ignition for storms. This is particularly the case when thunderstorms cause little or no rain, as is sometimes the case in South Western Victoria.

1. Chief Health Officer, Dept. of Health, Victoria, Australia (2011) *January 2009 Heatwave in Victoria: an Assessment of Health Impacts*
2. Victorian Government of Sustainability and Environment (2008). *Climate Change in Glenelg Hopkins*

Heat Health Alert

DH has developed a state-wide Heat Health Alert System to notify councils, hospitals, and health and community service providers of forecast heatwave conditions which are likely to affect human health. Research tells us that when our area reaches a heat health temperature threshold of 30°C or above, heat-related illness and mortality increases substantially.

Our threshold is calculated by the Bureau of Meteorology (BoM). It determines the daily average temperature: the average of the forecast daily maximum temperature and the forecast overnight temperature (which is the daily minimum for the following day).

The average temperature calculation for Warrnambool will be based on the BoM temperature recorded from the Warrnambool Airport (Not the Hamilton Temperature as calculated by the DH for the South West Region).

Figure 2: Calculating Heat Health Alert Thresholds

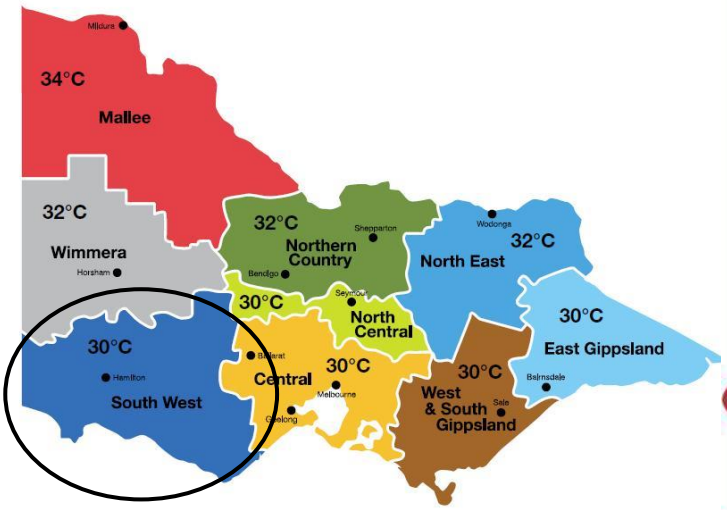


Image adapted from the Country Fire Authority's 'Know your total fire ban district".

Calculating the mean temperature

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

An example of this calculation is demonstrated below:

Melbourne

Tuesday

Min: 20 °C

Max: 38 °C

Wednesday

Min: 25 °C

Max: 31 °C

Mean calculation for Tuesday

(38+25)/2 = 31.5°C

The threshold for Melbourne = mean of 30°C.

The temperature forecast indicates that the threshold will be exceeded.

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

When forecast average temperatures are predicted to reach or exceed the heat health temperature threshold for the South West Region, the department will issue a heat health alert to designated contacts (Appendix 3), including our Council primary contacts (Appendix 1). ***Health and Local Laws will then recalculate using BoM temperatures for Warrnambool and action accordingly.***

Efficient response to heat health alerts is dependent upon the Warrnambool City Council informing all key stakeholders of their responsibilities to enact their own heatwave actions via email, fax or telephone. An activation plan will be followed to ensure this process is carried out smoothly and effectively (see Figures 3 & 4).

Figure 3: Heat Health Alert Activation Plan Overview

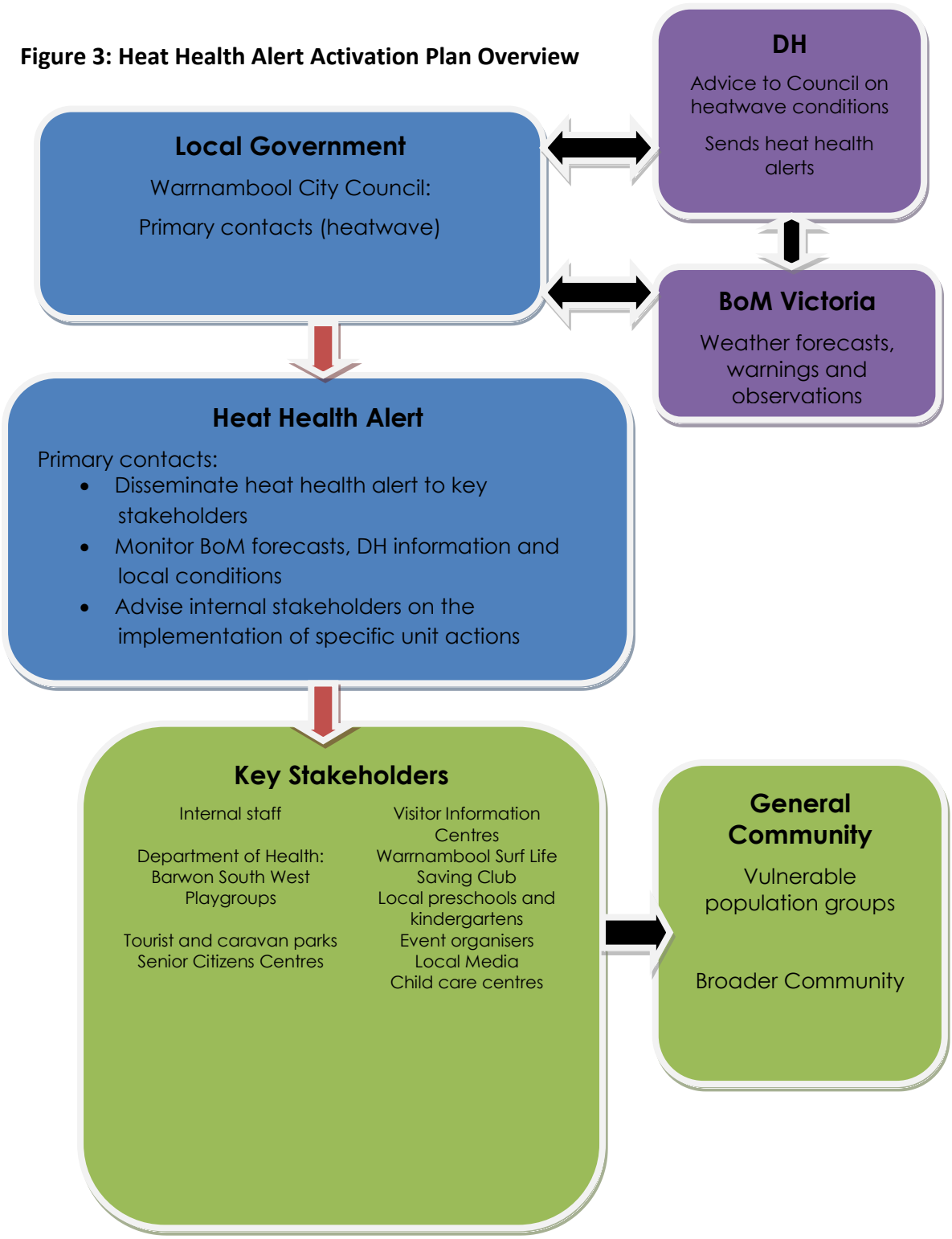
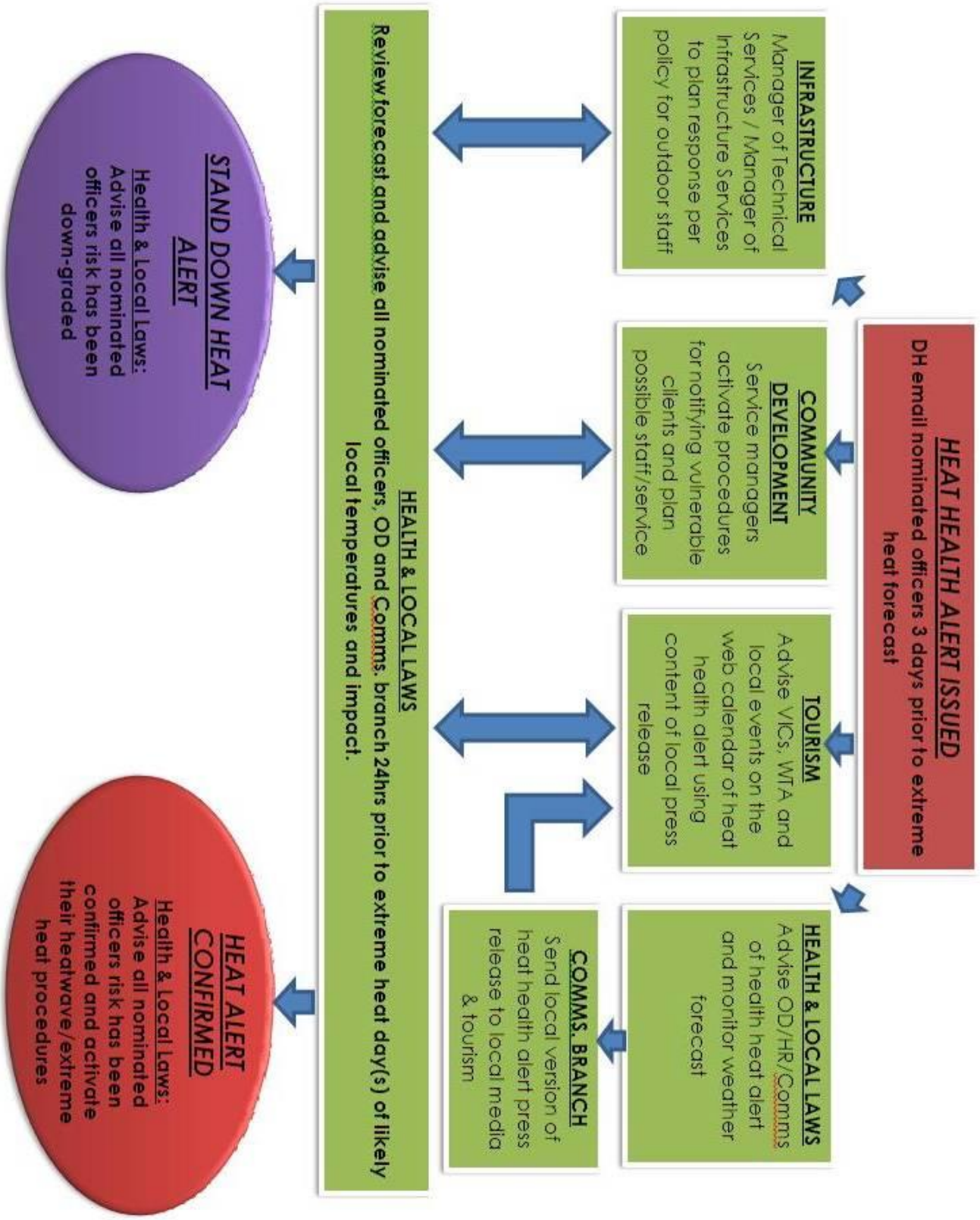


Figure 4: Heat Health Activation Plan – WCC Internal



People Most At-Risk to Heatwaves

Heatwaves can affect anybody, including the young and healthy; however, there are certain population groups that are more at risk than others. These include the elderly, infants and young children, people with a disability, people with a pre-existing medical condition and people who are socially and economically disadvantaged. Other groups at risk to heat include people who are overweight, people who over exert during work or exercise and people confined to bed and unable to care for themselves.

While the *Warrnambool City Council Heatwave Plan* plans for a whole-of-community response, it particularly focuses upon the following groups:

- **The Elderly: People over 65 years of age**

  Most studies have found that heat-related mortality is highest in those over 65 years of age. In Victoria's January 2009 heatwave, reportable deaths for those 65 years and older doubled[3]. In 2011, 15.6% of our population was aged 65 years or older, compared to 13.6% state-wide. By 2031, the percentage of the population in our municipality over 65 is projected to increase to 18.3%[4].

- **Infants: Children aged 0 to 4 years**

  Young children are also sensitive to the effects of high temperatures because they produce more metabolic heat than adults and rely on others to regulate their environments and provide adequate liquids. Their core temperature can rise quickly causing dehydration. The number of children aged 0 to 4 years in our Shire is expected to rise slightly from 2228 in 2011 to 3012 in 2031[4].

- **Sports lovers**

  Sport lovers in the Warrnambool Municipality enjoy both indoor and outdoor sporting activities. Heat and sport or physical activity can be a dangerous combination. At rest and in comfortable temperatures, a person sweats about two litres of fluid every 24 hours. During hot weather (35°C), this fluid loss can leap to around 10 litres over the same time period. Exercising in hot weather accelerates fluid loss even more, and heat stress can occur quickly when sweat can't evaporate fast enough to keep the body sufficiently cool.

  Most sporting bodies have their own internal policies regarding heat management. However during a Heat Health Alert Council must remind sporting groups to implement their policies to prevent heat related illness, and to be aware of symptoms of heat stress, heat exhaustion and heatstroke.. Effective management systems for ensuring the health and safety of people playing sport on hot days (especially children) must be in place. Sport Medicine Australia provides sport specific information in '*Hot Weather Guidelines: For sporting clubs and associations and the physically active*' (appendix 4)

3. Chief Health Officer, Dept. of Health, Victoria, Australia (2011) *January 2009 Heatwave in Victoria: an Assessment of Health Impacts*
4. Forecast.id-Warrnambool (2011) *Population Forecasts*, Warrnambool City Council

- **Tourists**

  In heat events, dehydration and heat stress can be a risk, particularly for un-acclimatised people. Warrnambool is one of Victoria's most popular seaside holiday destinations. Whilst our region is recognised as a safe place to visit, as visitor numbers increase especially over summer, additional pressure can be placed on the capacity of health and safety services to meet the needs of visitors if they suffer from heat related illnesses. Simple messages need to be given to our tourists on very hot days such as:

  - When it's hot, it's time to slow down and drink lots of water;
  - Wear a broad-brimmed hat and cool loose clothes which "breathe";
  - Use sun screen and carry copious supplies of water (drink around 500 ml before leaving accommodation, then 200-300ml every 15 minutes);
  - Reduce exercise in duration and intensity, or postpone to a more suitable, cooler time; and
  - Plan cooler activities like swimming, cinema, visiting gardens and parks.

- **Council Staff (carers, service delivery and outdoor work)**

  Council employees undertaking outdoor tasks in the sun, people working in hot, stuffy and poorly ventilated buildings, and staff travelling in non air conditioned vehicles for long periods of time without adequate breaks, shade or water can face serious dehydration and risk of a heat-related illness. It is a legislative requirement and the responsibility of Council to ensure the provision of a safe and healthy work environment. This means workers must have adequate access to amenities such as water and shaded areas to take rest breaks. They also must be advised to wear suitable clothing. During periods of extreme heat, work schedules should be modified so that outdoor work is performed during the coolest parts of the day.

  It is the responsibility of all council staff must comply with the Council Policy: '*Working in Hot/Cold Conditions'* (appendix 5)

- **Farmers**

  Prolonged periods of hot weather can have far-reaching effects on our farmers. Because farmers generally work outdoors, they are at an increased risk of heat stress. Research tells us that during heatwave conditions there are higher numbers of work-related farm accidents and reduced work productivity, yet increased workloads and higher levels of stress for farming families. Deterioration of water supplies, along with drought and bushfire threat, can further add to difficult and expensive summers for our farmers.

- **People from diverse cultural backgrounds where English is not the first language**

  Around 5.9% of people living in the Warrnambool municipality were born outside of Australia[5]. This is lower than the state percentage of 25.5%. People who are not accustomed to the Australian climate and whose primary language isn't English are more vulnerable to heatwave conditions due to the potential barriers they may face

in accessing health services and community messages. Our Council recognises the importance of ensuring that all residents within the community have full and fair access to heat health information. This information must be made available in a range of formats translated into community languages.

- **People with a disability and low mobility**

  Many people with a disability, particularly those with a severe physical or mental impairment, are amongst the most vulnerable and disadvantaged in our society. They can be badly affected by prolonged periods of hot weather. The incidence of disability increases with age, peaking in the 55 to 74 years age group. In 2006 4.3% of the population of Warrnambool required help or assistance with core activities compared with the Victorian state average of 5.0%

5. Department of Health 2011: LGA Profile Glenelg

Our Partners

Council is working alongside stakeholders from within the targeted sector groups to act as key partners in the future evaluation of the *Heatwave Plan*. We will partner with government, private sector, service providers and community group organisations that represent our vulnerable communities (Appendix 2).

These partners include:

- Local health services
- Local emergency services
- Department of Health: Barwon South West
- Department of Veteran Affairs
- Warrnambool Tourist Association
- Local preschools and kindergartens
- Playgroups
- Local schools
- Local sporting bodies
- Glenelg Shire Council
- Moyne Shire Council
- Visitor Information Centres
- Nursing homes and supported care
- Visitor information Centres
- Maternal & Child Health
- Child care centres
- Senior Citizens
- Event organisers
- Warrnambool Surf Life Saving Club
- Tourist and caravan parks
- Corangamite Shire Council

Each of the key partners has an important role to play in the event of a declared heatwave. Recommendations around what stakeholders can do in times of extreme heat are summarised in the following action plan.

What We Are Going To Do

To be better prepared for heatwave conditions, Warrnambool City Council is going to:

- Include heatwave preparation, response and recovery into existing municipal plans;
- Make use of existing community registers;
- Use our community services and organisations to support vulnerable populations;
- Engage in a communication and media campaign using heatwave messages consistent with DH materials; and
- Respond to state activated heat alert system in a planned and considered way.

Our action plan

Our 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 then can be divided into four phases:

Figure 5: Summary of heatwave plan actions

Phase 1 **Pre summer preparation April 1 to November 30**	To build capacity within communities leading up to the summer months
Phase 2 **During summer prevention December 1 to March 31**	To further build resilience & strategies amongst residents during the summer months
Phase 3 **Heatwave response** **Trigger: DH heat health alert**	To respond to a state activated heat alert system in a planned and considered way
Phase 4 **Heatwave recovery**	To review heatwave actions after each heatwave event or at the end of summer

What we will do in Phase 1: 'Pre-Summer Preparation'

Phase 1 includes a range of actions to build capacity within Warrnambool City Council communities leading up to the summer months. It identifies and engages all key stakeholders. This phase is implemented between April 1 and November 30 each year.

Action	Responsibility	Timeline	Resources
Update general heatwave information, material and resources • Check for new resources/materials published by Department of Health or other organisations to support heatwave planning • Check for policy/legislation changes that may now affect actions • Distribute updated information to relevant Council departments • Update web pages • Discard outdated information • Review and update internal policies, procedures and plans relating to health and wellbeing during heat events • Review/update Heat Health Alert contacts (Council)	Health & Local Laws	April, May	Staying Healthy in the Heat packs
Implement 'Before Summer' Communications Campaign • Re-order general heatwave information, materials and resources • Revisit events calendar to target new events that could support heatwave messages • Plan potential media articles/topics/photo shoots (C2C Apr-Nov ed., community noticeboard, website) • Provide suitable brochures to vulnerable groups (New mothers groups, HACC services) • Consider applications of text message service to new mums in conjunction with potential Immunisation service	Health & Local Laws Communications Health & Local Laws MCH & Immunisation Coordinator	April to November	C2C, community noticeboard, website Immunisation service MCH
Identify and engage local stakeholders • Revisit and update local stakeholder email list for Heat Health Alert days • Encourage local sporting clubs and caravan parks to develop heat health actions in line with this Heatwave Plan • Ensure event organisers are informed of appropriate heat health alert actions • Maintain a contact list of caravan parks through renewal process	Health & Local Laws	April to November	
Review vulnerable groups and update community registers			

• Develop/update client databases and community registers • Assess client vulnerability to heat related illness	Comm. Dev.	April to November	
Educate internal staff • Revisit staff awareness and first aid training relating to heat and health • Organise pre summer heatwave meeting	Comm. Dev. Health & Local Laws	April to November	
Identify cool places • Service air conditioners in MCH centers	Community Development	April to November	

What key stakeholders can do in Phase 1

In Phase 1, key stakeholders will be advised by Council to consider:

- Revisiting their actions from the previous summer and evaluate their levels of effectiveness;
- Meeting with other stakeholders to revise and amend key heatwave messages and actions;
- Updating their community registers;
- Collecting general heatwave information from Council;
- Educating any new staff of key heatwave messages; and
- Auditing client homes (if appropriate).

What we will do in Phase 2: 'During Summer Prevention'

Phase 2 includes a range of actions to further build resilience amongst Warrnambool City Council residents during the summer months. It directly involves the actions of most key stakeholders. This phase is implemented between December 1 and March 31 each year.

Action	Responsibility	Timeline	Resources
Implement 'During Summer' Communications Campaign • Coordinate media articles • Ensure web information is live & updated frequently • Draft heatwave heat health alert messages on standby for Phase 3 Advise councilors and Medical Officer of campaign	Comms Comms/IT Comms Health & Local Laws	December	
Disseminate heat health information • Send education materials and heat health messages to internal Council staff including MEMPC and relief/recovery committee • Display heat health messages/posters in Council facilities and premises • Distribute heat health information to local stakeholders • Distribute heat health information to clients • Distribute heat health information to event organisers	HR / MERO All departments Health & Local Laws HACC / MCH Events & Promotions Team	December	
Advise local stakeholders of roles and responsibilities • Inform any new event organisers of their responsibilities during hot conditions • Revisit heat health alert actions • Inform sporting associations of Hot Weather Guidelines for Sporting Clubs and Associations and the Physically Active document (Appendix 4)	Events & Promotions Health & Local Laws Com. Dev.	December	
Check procedures and resources • Check supplies of personal protective equipment for Council staff eg bottled water, neck coolers, hats & sunscreen • Remind staff of Phase 3 heat health alert actions & Council Policy (working in Hot/Cold Conditions) • Check local stakeholder email distribution list for Heat Health Alert days • Ensure generic email message for Heat Health Alert days is ready to go	All departments HR Primary contacts Primary contacts	December	

What key stakeholders can do in Phase 2

In Phase 2, key stakeholders will be advised by Council to consider:

- Distributing heatwave information to clients;
- Recommend Identifying cool areas;
- Keeping in regular contact with vulnerable clients;
- Modifying client/staff programs; and
- Providing staff with access to extra water and encourage cool clothing.

What we will do in Phase 3: 'Heatwave Response'

Phase 3 is triggered when imminent heatwave temperatures are predicted by BoM. Council will know to move to this phase when it is notified by DH. Two staff members at Council will receive an email Heat Health Alert when forecast temperatures are expected to exceed threshold levels. It will then be up to Council to continue to monitor local forecast temperatures and notify the relevant stakeholders to activate specific actions in Phase 3 of this *Heatwave Plan*.

Action	Responsibility	Timeline	Resources
Alert local stakeholders of Heat Health Alert • Send generic Heat Health Alert email message to local stakeholders using distribution list • Inform MERO regarding activation of Heatwave Plan • Monitor BoM forecasts, DH information and local conditions • Advise internal stakeholders when to implement specific unit actions • Post heat health alert onto *Connect* Community Directory • Contact next of kin for vulnerable clients	Primary contacts Health & Local Laws Primary contacts Primary contacts Com. Dev. MRM	Heat Health Alert	
Implement 'Heatwave Response' Communications Campaign • Coordinate media alert • Update home page on Council website • Post heat health alert message to all staff on intranet • Brief customer service on messages for general public especially around cancelled events	Comms Comms, IT Comms Comms, Customer Service	Heat Health Alert	
Prioritise tasks and modify programs • Consider rescheduling home/site visits to cooler parts of the day • Consider replacing home/site visits with telephone consultations • Consider rescheduling afternoon appointments for vulnerable clients • Prioritise tasks to ensure essential services are carried out • Modify centre based activities and programs • Ensure staff are adequately hydrated and receive regular breaks • Deploy additional staff resources as required • Open relief/recovery centres if required • Consider cancelling/modifying events and informing stakeholders • Revisit pool opening and closing times	Com. Dev. Com. Dev. Com. Dev Com. Dev. All Departments All Departments MERO MERO Events AquaZone	Heat Health Alert	

Aspects of the *Municipal Emergency Management P*lan would be activated by the Warrnambool City Council in response to declared emergencies resulting from heatwave conditions. In this case, the Manager Health & Local Laws would liaise with MERO as a representative of the MEMPC.

What key stakeholders can do in Phase 3

Prompt action by stakeholders during Phase 3 will ensure the impacts of heat on vulnerable groups are kept to a minimum. Key stakeholders will be advised by Council to consider:

- Prioritising tasks especially for those involving physical exertion;
- Assessing risk for clients and staff;
- Rescheduling staff work times and hours;
- Providing additional fluids and cool places to rest for clients and staff;
- Modifying client programs;
- Transporting clients in cooler parts of the day; and
- Altering children's outdoor activities and play times.

What we will do in Phase 4: 'Heatwave Recovery'

Phase 4 ensures the *Heatwave Plan* remains relevant and meets the changing needs of our community. Council will review heatwave actions in this phase after each heatwave event or at the end of summer and use any amendments to inform an updated *Heatwave Plan* every four years. This will be carried out in conjunction with the *Municipal Emergency Management Plan* review cycle. All relevant stakeholders will actively participate in the evaluation. The following questions will be addressed.

- Were the actions in Phase 3 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?

Action	Responsibility	Timeline	Resources
Implement 'Heatwave Post Event' Communications Campaign • Remove heat health alert communications material/messages • Alter web messages • Plan media article containing post event information	 Comms Comms, IT Comms	After heatwave event	
Review heatwave actions • Consult with internal stakeholders to review procedures and actions • Consult with external local stakeholders to review procedures and actions • Follow up with clients as to 'how they went' in the heatwave to consider addition to vulnerability registers • Identify improvements to the procedures, policies and plans in a summary of key findings	 All departments All departments Aged & Disability Services, MCH All departments	Post summer	
Modify *Heatwave Plan* according to recommendations • Update Heatwave Plan to include key findings of review • Distribute amended plan to stakeholders		Post summer	

What key stakeholders can do in Phase 4

In Phase 4, key stakeholders will be advised by Council to consider:

- Participating in Council's evaluation of the *Heatwave Plan*;
- Reviewing their own actions during prolonged periods of hot weather; and
- Making recommendations to modify their own plans.

Appendix 1: Heatwave Primary Contact List (Council)

Heatwave Working Group

Manager Health & Local Laws

Coordinator Environmental Health

Director Community Development

Acting Manager Community Services

Manager Community Policy & Planning

Service Manager Early Years learning & Development

Service Manager Home & Community Care

Service Manager Early Years Intervention & Support

Recreation & Youth Service Manager

Coordinator Maternal & Child Health Nurse

Service Manager Active Aging & Inclusion

Manager Tourism Services

Manager Infrastructure Services

Manager Infrastructure Development and Projects

Manager Media & Marketing

Municipal Emergency Resource Officer (MERO)

Appendix 2: Key Stakeholder Contacts in the Case of a Heat Event

Local health services

- Southwest Healthcare
- St John of God Hospital

Local emergency services

- Warrnambool Police
- Warrnambool Fire Brigade
- Warrnambool SES

Department of Health: Barwon South West

- REHO

Department of Veteran Affairs

Preschools, kindergartens & playgroups

Local Child Care Centres

- Florence Collins Childcare Services
- Goodstart Early Learning Dennington
- Goodstart Early Learning Warrnambool
- Kardinia Childcare & Kindergarten
- Koala Childcare and Early Learning Centre
- Matron Swinton Childcare Centre
- North Edge Child Care Centre
- Sherwood Park Childcare Centre

Local schools

- Special Development School
- Warrnambool College
- Brauer College
- Emmanuel College
- Kings College
- Warrnambool Primary School
- St Josephs Primary School

- Woodford Primary School
- Allansford Primary School
- St Johns Primary School
- Warrnambool East Primary School
- Merrivale Primary School
- Warrnambool West Primary School

Local sporting bodies

- Recreation & Youth Co-ordinator

Visitor Information Centres

- Warrnambool

Nursing homes and supported care

- Lyndoch Living
- Gillin Park Retirement Village
- Mercy Place
- Opal Gillin Park Aged Care Hostel
- Opal Warrnambool
- Themar Heights

Senior Citizens

- Archie Graham

Event organisers

- Manager Events and Promotions

Warrnambool Surf Life Saving Club

Tourist and caravan parks

- Surfside and Shipwreck Bay Holiday Parks
- Discovery Holiday Park
- Figtree Holiday Park
- Hopkins River Caravan Park

- Warrnambool Holiday Park
- Warrnambool Holiday Village

Neighbouring Councils

- Corangamite Shire Council
- Glenelg Shire Council
- Moyne Shire Council

Appendix 3: DH Heat Health Alert Distribution List 2012-2013

Local government authorities: Designated contacts (See appendix 1)

Minister's office:

- Minister for Health
- Ageing Minister for Housing
- Children & Early Development
- Minister for Mental Health;
- Women's Affairs;
- Community Services

DH – Head office

- DH Secretary
- Executive Directors
- Directors
- Executive Officers

DH/DHS – Regional

- REOC
- Regional Director
  - EM Coordinator/Manager
  - Corporate Service Managers
- Director – Health & Aged Care
  - Public Health Manager
  - Regional Environmental Health Officer (REHO)

DHS – Head office

- DHS Secretary
- Executive Directors
- Directors
- Executive Officers

DH – Program areas

- WICA
  - Aged Care
  - Health Protection and Chief Health Officer
  - Prevention and Population Health
  - Integrated Care
- Strategy, Policy & Finance
  - Business Planning & Communications – Media Unit
  - Health Regulation and Reform – Private Hospitals Unit
- Mental Health, Drugs & Regions
  - Operations

- Hospital & Health Services
  - Performance, Acute Programs & Rural Health
  - Quality, Safety & Patient Experience (VHEC)

SECONDARY DISTRIBUTION

- Metropolitan health services
- Rural health services
- Private hospitals
- Stakeholders
  - Adult Retrieval Victoria
  - Field Emergency Medicine Officers
  - Nurse-on-Call
  - Ambulance EOC
  - ARC Blood Service

- Aged care sector
  - PSRACS
  - DVA
  - DoHA

DHS – Program areas

- Disability Services
- Service Delivery and Performance
  - Emergency Management Branch
- Housing & Community Building

Emergency services

- Country Fire Authority
- Metropolitan Fire Brigade
- State Emergency Services
- Victoria Police

Commonwealth departments

- DH and Ageing (DHA)

State government departments/programs

- Department of Premier and Cabinet
- Department of Education and Early Childhood Development
- Department of Justice
  - Office of the Emergency Services Commissioner
  - Office of the Fire Services Commissioner
- Department of Primary Industries
- Department of Sustainability and Environment
- Department of Transport
- Information Victoria (DIIRD)
- Community Registers

Government agencies

- Ambulance Victoria
- Bureau of Meteorology
- Centrelink
- Coroners Court

Statewide or major metropolitan service providers

- Baptcare
- Brotherhood of St Laurence, Integrated Community Care
- Life Saving Victoria
- Melbourne Medical Deputising Service
- Multiple Sclerosis Australia (Victoria)
- NURSE-ON-CALL provider (Medibank Private)
- Personal Alert Victoria
- Royal District Nursing Service (RDNS)
- Red Cross (regional and EOC)

Peak or advocacy bodies

- Aged and Community Care Australia
- Aged Care Standards and Accreditation Agency
- Alzheimer's Australia Vic (AAV)
- Aquatics and Recreation Victoria
- Australian Psychological Society
- Carer's Victoria Inc.
- Disability Emergency Management Advocacy
- Ethnic Communities Council of Victoria (ECCV)
- General Practice Victoria
- KidSafe Victoria
- Municipal Association of Victoria
- Pharmacy Guild of Australia
- Pharmaceutical Society of Australia
- Seniors Information Victoria (COTA)
- Victorian Eyecare Service

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Appendix 4: Hot Weather Guidelines for Sporting Clubs and Associations and the Physically Active

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HOT WEATHER GUIDELINES

For sporting clubs and associations and the physically active

Why use guidelines?

Every year in hot weather **Sports Medicine Australia (SMA)** receives requests from sporting clubs and associations, individuals and members of the media asking:

- Should our sporting event be modified or cancelled?
- Should our training be modified or cancelled?
- When is it safe to play sport or be physically active in the heat?

To help organisations, coaches, teachers and other individuals when conducting sport in hot weather, SMA has produced this revised set of guidelines. These new guidelines are based on the latest research as well as the expertise of SMA's medical and scientific members.

Most people understand the importance of physical activity for good health but it is just as important that, when levels of activity rise, the risk of harm is minimised. And it is even more important for those who have not recently or regularly taken part in sport or physical activity.

These guidelines are not binding, but SMA reminds all parties that they must act responsibly. We encourage a common sense approach and consideration of the comfort and well-being of all individuals including participants and officials.

Modification or cancellation of events, training or withdrawal from participation may be appropriate even in circumstances falling outside these recommendations.

There are many factors to be considered when clubs and associations are contemplating modifying, postponing or canceling sporting events or training.

Sporting organisations need to be aware of the difficulty of settling "one size fits all" guidelines in this area. For normally healthy active people, the only dangers from heat illness are likely to arise from high intensity exercise such as endurance running. Most community sport does not reach this level for periods long enough to cause serious harm. Many types of sport, such as cricket and tennis, are usually safe at higher temperatures because of the lower intensity of the play.

One area of higher risk for organisers of community-level sport is in the conduct of marathons and fun runs and bike rides. These events are more likely to see participants push themselves beyond their normal boundaries of activity, and organisers need to take extra precautions.

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However, at any time, high intensity exercise in a hot environment, with the associated elevation of body temperature, can lead to heat illness. Heat illness in sport presents as **heat exhaustion** or the more severe **heat stroke**.

Heat exhaustion

- Characterised by a high heart rate, dizziness, headache, loss of endurance/skill/confusion and nausea.
- The skin may still be cool/sweating, but there will be signs of developing vasoconstriction (eg, pale colour).
- The rectal temperature may be up to 40°C and the athlete may collapse on stopping activity. Rectal temperature should only bne measured by a doctor or nurse.

To avoid heat exhaustion, if people feel unwell during exercise they should immediately cease activity and rest. Further benefit comes if the rest is in a shaded area with some passing breeze (from a fan if necessary) and the person takes extra hydration. Misting or spraying with water can also help.

Heat stroke

- Characteristics are similar to heat exhaustion but with a dry skin, confusion and collapse.
- Heat stroke may arise in an athlete who has not been identified as suffering from heat exhaustion and has persisted in further activity.
- Core temperature measured in the rectum is the only reliable diagnosis of a collapsed athlete to determine heat stroke.

This is a potentially fatal condition and must be treated immediately. It should be assumed that any collapsed athlete is at danger of heat stroke. The best first aid measures are "Strip/Soak/Fan":

- **strip off any excess clothing;**
- **soak with water;**
- **fan;**
- **ice placed in groin and armpits is also helpful.**

The aim is to reduce body temperature as quickly as possible. The athlete should immediately be referred for treatment by a medical professional.

Important: heat exhaustion/stroke can still occur even in the presence of good hydration.

Dehydration

Dehydration is fluid loss which occurs during exercise, mainly due to perspiration and respiration. It makes an athlete more susceptible to fatigue and muscle cramps. Inadequate fluid replacement before, during and after exercise will lead to excessive dehydration and may lead to heat exhaustion and heat stroke.

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To avoid dehydration, SMA recommends that:

- athletes drink approximately 500 mls (2 glasses) in the 2 hours prior to exercise;
- during exercise longer than 60 minutes, 2-3 cups (500-700ml) of cool water or sports drink are sufficient for most sports.
- after exercise replenish your fluid deficit to ensure that you are fully re-hydrated, but not over-hydrated.
- refer to SMA's free DRINK UP brochure available as a web download at http://www.smartplay.com.au or from your local National Pharmacies store.

Points to consider:

- Will your players and officials be able to consume enough water during the event?
- Even a small degree of dehydration will cause a decrease in performance.
- Take care not to over-hydrate. Drinking too much fluid can lead to a dangerous condition known as hyponatraemia (low blood sodium). Aim to drink enough to replace lost fluids, but not more than that.

Factors to consider before cancelling or modifying a sporting event or training

(Remember not only to take players into account but also umpires, officials and volunteers.)

The following tables provide estimates of risk related to the weather and also guidelines to managing activity in order to minimise heat stress.

Environmental Factors

1. Temperature

Ambient temperature is the most easily understood guide available, and is most useful on hot, dry days

Ambient temperature	Relative humidity	Risk of Heat Illness	Possible management for sustained physical activity
15 - 20		Low	Heat illness can occur in distance running. Caution over-motivation.
21 - 25	Exceeds 70%	Low - moderate	Increase vigilance. Caution over-motivation.
26 – 30	Exceeds 60%	Moderate	Moderate early pre-season training. Reduce intensity and duration of play/training. Take more breaks.
31 – 35	Exceeds 50%	High – very high	Uncomfortable for most people. Limit intensity, take more breaks. Limit duration to less than 60 minutes per session.
36 and above	Exceeds 30%	Extreme	Very stressful for most people. Postpone to a cooler conditions (or cooler part of the day) or cancellation.

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OR

WBGT
Further guidance might be gained from what is known as the Wet Bulb Globe Temperature (WBGT) index. The WBGT is useful when humidity is high.

WBGT	Risk of thermal injury	Possible modifying action for vigorous sustained activity
< 20	Low	Heat illness can occur in distance running. Caution over-motivation.
21 - 25	Moderate to high	Increase vigilance. Caution over-motivation. Moderate early pre-season training intensity and duration. Take more breaks.
26 - 29	High - Very high	Limit intensity. Limit duration to less than 60 minutes per session.
30 and above	Extreme	Consider postponement to a cooler part of the day or cancellation (allow swimming).

The Bureau of Meteorology (BOM) produces ambient and WBGT readings for many locations in Australia. You can check these readings and a guide for the relative risk for your location at **www.bom.gov.au/info/thermal_stress/index.shtml**

N.B. It is important to watch for unusual "heatwave" conditions or variations from the average temperature for the time of year. This is one situation where there may be a greater danger of heat illness.

Heat stress increases with increases in air temperature but be aware that there are not clear demarcations in risk between temperature ranges. At relative humidity levels above those indicated in the tables, stress increases markedly.

2. Duration and intensity of an event

- The combination of extreme environmental conditions and sustained vigorous exercise is particularly hazardous for the athlete. The greater the intensity of the exercise, the greater the risk of heat related symptoms; eg, distance running is more of a problem than stop-start team events.
- Player and official rotation may also be considered
- Reducing playing time and extending rest periods with opportunities to rehydrate during the event would help safeguard the health of participants.
- Provision of extra water for wetting face, clothes and hair is also important.
- A fan to enhance air movement would be beneficial

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3. Conduct of competition and training (hydration and interchange opportunities)

- Associations may consider dividing games into shorter playing periods rather than halves to allow for extra breaks.
- Coaches may consider alternative training times and venues during hot weather.
- Remember, even five minutes rest can cause a significant reduction in core temperatures.
- It is important to consider the welfare of officials, as well as players.

4. Time of Day

- Avoid the hottest part of the day (usually 11 am-3 pm). Scheduling events outside this time should be a consideration throughout any summer competition, training or event, regardless of the temperature.

5. Local Environment

- Radiant heat from surfaces such as black asphalt or concrete can exacerbate hot conditions.
- The type of exercise surface and the amount of sunlight vary significantly with different sporting activities and therefore must be analysed for each individual sport.
- An air-conditioned indoor venue will provide less of a problem. A hot indoor venue or an outside venue without shade cannot be considered an acceptable environment.
- Airflow should be considered, including fans in change rooms or appropriately placed.

Remember, air movement decreases heat stress. However, a following wind can increase problems for runners or cyclists by actually reducing air movement.

Host (personal) factors

1. Clothing

- Type of clothing is vital in minimising health risks associated with exercise in heat.
- Fabrics that minimise heat storage and enhance sweat evaporation should be selected.

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- Light weight, light coloured, loose fitting clothes, made of natural fibres or composite fabrics with high wicking (absorption) properties, that provide for adequate ventilation are recommended as the most appropriate clothing in the heat. This clothing should complement the existing practices in Australia that protect the skin against permanent damage from the sun.
- This should apply to the clothing worn by players, umpires, other officials and volunteers.

Protective clothing

If clothing is worn for protective reasons, ensure that it is worn only while training and competing in hot weather. Some examples include leathers in motorcycling and mountain biking, protective equipment for hockey goalkeepers and softball and baseball umpires. Remove non-breathable clothing as soon as possible if the participants or officials are feeling unwell in hot conditions. Start cooling the body immediately via ventilation and/or a cool spray such as a soaker hose or a hand-held spray and a fan.

2. Acclimatisation of the participant

- Acclimatisation of the participant includes umpires, other officials and volunteers as well as players.
- Preparation for exercise under hot conditions should include a period of acclimatisation to those conditions, especially if the athlete is travelling from a cool/temperate climate to compete in hot/humid conditions.
- It has been reported that children will acclimatise slower than adults.
- Regular exercise in hot conditions will facilitate adaptation to help prevent performance deteriorating, or the athlete suffering from heat illness, during later competitions. Sixty minutes acclimatisation activity each day for 7-10 days provides substantial preparation for safe exercise in the heat.

3. Fitness levels/athletic ability of participant

- A number of physical/physiological characteristics of the athlete will influence the capacity to tolerate exercise in the heat, including body size and endurance fitness.
- In endurance events, accomplished but non-elite runners, striving to exceed their performance, may suffer from heat stress. The potential for heat-related

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illnesses would be exacerbated if they have not acclimatised to the conditions and have failed to hydrate correctly.

- Overweight and unconditioned athletes, umpires, officials and volunteers will generally also be susceptible to heat stress.
- Refer to SMA's free DRINK UP brochure available from www.sma.org.au/information or your local National Pharmacies store.

4. Age and gender of participant

- **Female participants** may suffer more during exercise in the heat because of their greater percentage of body fat.
- **Young children** are especially at risk in the heat. Prior to puberty, the sweating mechanism, essential for effective cooling, is poorly developed. The ratio between weight and surface area in the child is also such that the body absorbs heat rapidly in hot conditions.
- In practical terms, child athletes must be protected from over-exertion in hot climates, especially with intense or endurance exercise.
- Although children can acclimatise to exercise in the heat, they take longer to do so than adults.
- Coaches should be aware of this and limit training for non-acclimatised children during exposure to hot environments.

NB: Children tend to have a more "common sense" approach to heat illness than adults. They "listen to their bodies" more and will usually slow down or stop playing if they feel distressed in the heat. ***On no account should children be forced to continue sport or exercise if they appear distressed or complain about feeling unwell.***

- Veteran participants may also cope less well with exercise in the heat. Reduced cardiac function is thought to be responsible for this effect.

5. Predisposed medical conditions

- It is important to know if athletes, umpires, officials or volunteers have a medical condition or are taking medication that may predispose them to heat illness.
- Examples of illnesses that will put the participant or official at a high risk of heat illness include asthma, diabetes, pregnancy, heart conditions and epilepsy. Some medications and conditions may need special allowances.
- Participants and officials who present with an illness such as a virus, flu or gastro or who are feeling unwell are at an extreme risk of heat illness if exercising in moderate to hot weather.
- Participants or officials who may be affected by drugs or alcohol may be at an extreme risk of heat illness if exercising in moderate to hot weather.
- SMA has produced Pre-exercise Health Check Guidelines. These should be used if pre-existing medical conditions are suspected or if the participant has

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no recent record of activity. The Guidelines can be downloaded from www.sma.org.au

6. Other factors to consider

- Preventative measures can be undertaken to minimise heat injuries. Examples include the provision of shade, hats, appropriate sunscreen, spray bottles and drinking water.
- It is important to have trained personnel available to manage heat injuries and designated recovery areas for patients.
- In situations where heat problems may be expected, an experienced medical practitioner should be present.

Heat stroke is potentially life threatening. Any indication of this condition should be immediately referred for medical assessment.

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Appendix 5: Warrnambool City Council Policy – Climatic conditions – Heat, Cold and UV